

SADBERGE PARISH COUNCIL

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Dear Adrian,

Application reference: 11/00128/FUL

Sadberge Parish Council **objects** to the application to construct a wind farm at Newbiggin for the following reasons:-

- (1) Commercial-scale wind turbines should not be situated amongst the settlements on the Tees Plain to the north-east of Darlington

Planning Committee members need to appreciate the truly massive scale of these industrial structures, and it would be advisable for them to visit existing wind turbines of the size proposed for Newbiggin as part of their preparation for determining this planning application.

- (2) The proposed wind farm would have an unacceptable negative visual impact on the landscape.

Although the number of wind turbines in the proposed wind farm falls within the "wind turbine cluster size" specified in Arup's report on "Wind Farm Development and Landscape Capacity Studies: East Durham Limestone and Tees", Sadberge Parish Council believes that structures of the proposed size in the proposed location would have a dominant and overbearing visual impact, which would be detrimental to the lives of residents of Sadberge and other nearby communities.

- (3) The proposed wind farm is too close to a number of existing residential properties and to West Newbiggin Farm, where planning permission has been granted to convert redundant farm buildings into nine new residential properties.
- (4) The proposed wind farm would be 4.0 km from the consented wind farm at Lamb's Hill, near Stillington, so granting permission for the Newbiggin wind farm would be contrary to the principle that wind farms should be separated by at least about 5 km.
- (5) No permission should be given for any wind farm on the Tees Plain until and unless Durham Tees Valley Airport makes a formal, public statement that it is satisfied that aircraft safety will not be compromised.

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The Parish Council understands that Durham Tees Valley Airport has objected to the proposed Newbiggin wind farm because (a) at least one of the wind turbines would penetrate the airport's safeguarded air space and (b) the proposed development would have an impact on the airport's air traffic control radar.

It would be perverse – and totally unacceptable – for planning permission to be granted for the proposed Newbiggin wind farm until and unless it has been established that aircraft safety will not be compromised. Also, since the issue of safety is very important and is of legitimate concern to local residents, no planning permission should be granted until and unless Durham Tees Valley Airport has made a public statement confirming that it is satisfied that aircraft safety will not be compromised. This matter should not be dealt with "behind closed doors".

- (6) There is no reliable assurance that noise from the proposed Newbiggin wind farm will not cause harm and annoyance to residents of individual properties and/or settlements in the surrounding countryside.

No planning permission should be given for any wind farm on the Tees Plain to the north-east of Darlington until and unless there is a satisfactory way of protecting local residents from all types of noise from wind turbines, not just the types of noise covered by ETSU-R-97.

The Newbiggin Environmental Statement reports a noise assessment that concludes that the noise from the wind farm will be within the limits specified in ETSU-R-97. However:-

- ETSU-R-97 assumes a fixed level of wind shear. During conditions of high wind shear the difference between the noise emissions from the wind turbines and the masking noise near ground level is considerably larger than is assumed in ETSU-R-97.
- ETSU-R-97 takes no account of – and provides no protection against – the phenomenon of excess amplitude modulation (EAM), which causes wind causes wind farm noise to take on a loud, "thumping" character and to become audible at a considerable distance from the wind farm.

Sadberge Parish Council has previously submitted a portfolio of evidence about wind farm noise in general and EAM in particular.

The Newbiggin Environmental Statement makes no attempt to address the issue of EAM, merely stating (in paragraph 12.6.28) that "the Government has stated it does not consider there to be a need to assess this issue further at the present time and that ETSU-R-97 should continue to be used to assess the noise of Wind Farms".

However, the Parish Council's analysis of the wind speed and direction data from the Moor House wind monitoring mast showed that there are there are frequent periods of very high wind shear over this part of the Tees plain.¹ Also, the Planning Officers' report on the original Moor House Wind Farm planning application reported that a study by Parsons Brinckerhoff had concluded that there is "greater than average risk" of amplitude modulation at the Moor House site. Given that the Newbiggin and Moor

¹ See the box on page 3.

House sites are separated by less than 3 km, it is highly likely that the same atmospheric conditions will prevail over both sites. It is therefore highly likely that there are frequent periods of very high wind shear over the Newbiggin site and that there is a greater than average risk of EAM at this site.²

Summary of the results of the Parish Council's analysis of the wind speed data from the Moor House wind monitoring mast

During four months in 2009 there were 29 periods, each lasting for at least three hours, when the wind speed at 60 metres above ground level was 5 ms^{-1} or more and there was very high wind shear. The total time in these periods of very high wind shear was a little more than 125 hours. Note that this excludes shorter periods when there was very high wind shear but it persisted for less than three hours.

If the four months' wind speed data is representative of atmospheric conditions over this part of the Tees Plain then it can be expected that on about 120 occasions per year – with a total time of about 500 hours a year – the atmospheric conditions will be conducive to the generation of EAM from the Moor House Wind Farm for at least three hours at a time. It should also be noted that these periods of very high wind shear occur almost exclusively during evenings and overnight; i.e. between 5 p.m. and 9 a.m.

The Parish Council wishes to analyse data from the wind monitoring mast at Gilly Flatt Farm to investigate the frequency and duration of periods of very high wind shear over the Newbiggin site. The Clerk to the Parish Council has requested the relevant data from both Pure Renewable Energy and Darlington Borough Council (see the letter dated 7th April 2011), but so far no data has been provided.

The Planning Officers' report on the original Moor House Wind Farm planning application proposed a planning condition (Condition 22) intended to protect local residents from harm from EAM noise. However, that planning condition is defective, and would not enable Darlington Borough Council to provide residents with the necessary protection within an appropriate time-scale. This is explained in detail in a letter dated 7th November 2010.

The Parish Council is willing to work with Darlington Borough Council to draft planning conditions to provide residents with effective protection against harm from possible excess amplitude modulation (EAM) noise from any wind farms that are given planning permission.

- (7) The proposed wind turbines would be a hazard to birds, including migrating birds making stops at the nearby Bishopton Lake.
- (8) During the construction phase, HGV's and abnormal loads travelling through Sadberge village would cause severe and unacceptable disruption to the lives of residents.

The Newbiggin Environmental Statement says that 27 abnormal loads – 9 turbine blades, each 45 metres long and 18 other components, each 23 - 25 metres long – would travel through Sadberge Village during an 8 to 9 week period. That is an average of approximately one abnormal load every two days (including weekends). The vehicles

² it is not clear why the same consultants – Parsons Brinckerhoff – who acknowledged that there is greater than average risk of EAM at the Moor House site have completely failed to address the issue of EAM when compiling an Environmental Statement for a proposed wind farm at a site less than 3 km away.

involved in transporting these abnormal loads would also travel back through Sadberge on their return journeys. It is astonishing that the Newbiggin Environmental Statement describes the impact of a massive abnormal load passing through Sadberge every two days over a period of eight or nine weeks as being "insignificant".

The Newbiggin Environmental Statement there would be 1,781 HGV deliveries during construction phase. (Table 18.2 on page 322.) Including return journeys, that means that there would be 3,562 HGV movements during the 8-month construction period, with 2,980 of those movements occurring during the first 3 months. Assuming that these HGV movements occur between 9 a.m. and 5 p.m. on weekdays, that means an overall average of about 20 HGV movements per day during the 8-month construction period and an average of more than 5 HGV movements per hour during the first three months.³ As far as the Parish Council is aware, the vast majority of these HGV movements will involve travel through Sadberge Village. (The Parish Council is seeking clarification from Parsons Brinckerhoff about the numbers of HGV movements along specific routes through the village.)

- (9) There is no proper mechanism for addressing the issue of cumulative impact of wind farms in the area to the north-east of Darlington.

No planning permission should be given for any wind farm on the Tees Plain to the north-east of Darlington until and unless there is a proper, satisfactory process for taking account of cumulative impact of wind farms.

PPS22 states that "*Planning authorities should also take into account the cumulative impact of wind generation projects in particular areas*".

Phil Wilson MP has pointed out that there is a great deal of interest by wind farm developers in East Durham and the Tees Plain, and that he is concerned about the cumulative impact that so many proposed wind farms could have on the local landscape.

In the area to the north-east of Darlington:-

- Planning consent has been granted for a four-turbine wind farm at Lamb's Hill, near Stillington.
- Planning applications have been submitted for wind farms at Moor House and Newbiggin.
- E.ON has said that its proposed site at The Isles (which incorporates the A1 wind farm site) could accommodate 25 - 45 wind turbines.

Any assessment of cumulative impact needs to take account of all the above wind farms.

Sadberge Parish Council also points out that:-

- The distance between the proposed Newbiggin and Moor House wind farms is only 2.8 km, so they would not meet the requirement for wind farms to be separated by at least about 5 km.

³ There are approximately $365 \times 8 / 12 = 243$ days in eight months. Of those, $243 \times 5 / 7 = 174$ are weekdays. 3,562 HGV movements in 174 days is an average of 20.5 movements per day.

There are approximately $365 \times 3 / 12 = 91$ days in three months. Of those, $91 \times 5 / 7 = 65$ are weekdays. At 8 working hours per weekday, there are $8 \times 65 = 520$ working hours in three months. 2,980 HGV movements in 520 hours is an average of 5.7 movements per hour.

- One of the conclusions in the Addendum to Arup's Landscape Capacity Studies report is that *"development of Moor House and East Newbiggin would result in possibly unacceptable effects on Sadberge"*.

Sadberge Parish Plan

Please note that the Parish Council's comments on this planning application are in line with the Sadberge community's views on wind farms in this area, as expressed in the Wind Farms Addendum to the Sadberge Parish Plan.

Work on the Wind Farms Addendum began in July 2008 (which was after the scoping reports for the proposed Moor House and East Newbiggin wind farms had been issued). Preparation of the Wind Farms Addendum involved extensive consultation with Sadberge residents, including an Open Meeting held in Sadberge Village Hall on 18th September 2008 and a questionnaire that was delivered to all Sadberge households.

The questionnaire asked whether we should oppose or accept the construction of wind farms near Sadberge. There was a 43.1% response rate, and 75.7% of the responses said that we should oppose wind farms in this area. Further details are available on the Sadberge web site at www.sadberge.org.uk.

On 16th December 2008, Sadberge Parish Council formally approved and adopted the Wind Farms Addendum as part of the Sadberge Parish Plan.

A copy of the Wind Farms Addendum to the Sadberge Parish Plan – together with two supporting documents – is available on the Sadberge web site.

If anything in this letter requires further clarification then please contact me.

Yours sincerely,

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