

**From:** Environmental Health  
**Sent:** 11 November 2024 12:53  
**To:** Development Control  
**Cc:** Heather Morrison  
**Subject:** PLANNING APP 4/24/2334/0F1 - HIGHFIELD FARM, BIGRIGG

Removal of existing wind turbine and erection of replacement wind turbine, up to 76m blade tip height, with associated development

Thank you for the above consultation.

Environmental Health have looked at potential impact on residential amenity from this proposed development, and the Shadow Flicker Assessment and Noise Assessment that has been submitted within the Planning Statement.

The Shadow Flicker Assessment has highlighted potential minor impact on properties at Quarry Cottages.

There appears to be some inconsistency in the Planning Statement on this.

Table 6.1 (p.47) advises that Quarry Cottages will receive 14 hours of shadow flicker per year, whilst paragraph 6.9.15 (p.48) puts this figure at “a maximum of 2.7 hours of shadow flicker per year...”

It would be helpful if this uncertainty could be cleared up.

In terms of guidance, a limit of 30 hours or more of shadow flicker per year is seen as the threshold on residential amenity, so both the above figures are well within this.

It is also noted that there is some tree screening to the west of Quarry Cottages, and these dwellings sit under a short steep bank that may also screen against shadow flicker.

The Noise Assessment has modelled resultant noise from three different models of wind turbine, though the planning application proposes that the Vestas V52 wind turbine is to be utilised at this site.

The V52 is modelled to produce noise that is marginally greater than the simplified noise limit set out in ETSU-R-97 “The Assessment and Rating of Noise from Wind Farms”, though within the alternative limit when background noise limits are taken into consideration.

Suggested conditions on noise limits are laid out below.

Planners may wish to amend the proposed working hours set out in the Planning Statement, which are slightly different than those usually adopted by this Planning Authority.

As such, Environmental Health have no objections to this development, and the following conditions are suggested:

- Operational noise limits for the wind turbine
  - (i) The noise emissions from the wind turbine shall not exceed a level of 35 dB LA90 (10 minutes) during the daytime (07.00 – 23.00 hours) and 43 dB LA90 (10 minutes) during the night time (23.00 – 07.00 hours) at the curtilage of any dwelling lawfully existing at the time of this consent at wind speeds up to and including 10 m/s at 10 m height.
  - (ii) For properties with a valid financial interest, the noise emissions from the wind turbine shall not exceed a level of 45 dB LA90 (10 minutes) at wind speeds up to and including 10 m/s at 10 m height.
  - (iii) Where this is not possible, ETSU-R-97 derived limits of background noise level plus 5 dB (whichever is greater) for all wind speeds up to 10 m/s at 10 m height shall apply.

Reason: In order to safeguard the amenities of nearby residential occupiers.

- Decommissioning / Construction Working Hours

Following approval of the development, decommissioning and construction activities that are audible at the site boundary shall be carried out only between the following hours: Monday to Friday 08.00 – 18.00 and Saturday 08.00 – 13.00 and at no time on Sunday or Bank Holidays. Deliveries to and removal of plant, equipment, machinery and waste from the site must only take place within the permitted hours detailed above unless otherwise agreed with the Local Planning Authority.

Reason: In the interests of the amenities of surrounding occupiers during the decommissioning and construction of the development.

Regards

Environmental Health

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