

**Amplitude
Modulation
from Wind
Farms**

DLP BRIEFING NOTE 65

Prepared by
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A long-running dispute between a wind farm developer and a Devon community appears to have reached its finale, with implications for the use and wording of planning conditions in relation to Amplitude Modulation (AM).

Amplitude Modulation is the technical term for a 'thump' and 'swish' that can be heard from wind turbines. It is a phenomenon that has however only been identified in certain circumstances.

A planning application for nine turbines in Devon was refused by the LPA in 2006. Following a public local inquiry, permission was granted but subsequently quashed by Judicial Review. A second inquiry was thus held in 2009, with planning permission again being granted. This decision was then challenged in the courts by a local campaign group, with judgement recently passed supporting the Inspector's decision. One of the grounds for the challenge concerned AM, in particular the two conditions that had been imposed on that matter. The conditions read:-

"At the request of the local planning authority following the receipt of a complaint the wind farm operator shall, at its expense, employ a consultant approved by the local planning authority, to assess whether noise immissions (sic) at the complainant's dwelling are characterised by greater than expected amplitude modulation. Amplitude modulation is the modulation of the level of broadband noise emitted by a turbine at blade passing frequency. These will be deemed greater than expected if the following characteristics apply:

a) A change in the measured L Aeq, 125 milliseconds turbine noise level of more than 3 dB (represented as a rise and fall in sound energy levels each of more than 3 dB) occurring within a 2 second period.

b) The change identified in (a) above shall not occur less than 5 times in any one minute period provided the L Aeq, 1 minute turbine sound energy level for that minute is not below 28 dB.

c) The changes identified in (a) and (b) above shall not occur for fewer than 6 minutes in any hour.

Noise immissions (sic) at the complainant's dwelling shall be measured not further than 35m from the relevant building, and not closer than within .5m of any reflective building or surface, or within 1.2m of the ground."

"No wind turbine shall generate electricity to the grid until the local planning authority, as advised by a consultant approved by the local planning authority at the expense of the operator, has approved in writing a scheme submitted by the wind farm operator providing for the measurement of greater than expected amplitude modulation immissions (sic) generated by the wind turbines. The objective of the scheme (which shall be implemented as approved) shall be to evaluate compliance with condition 20 in a range of wind speeds and directions and it shall terminate when compliance with condition 20 has been demonstrated to the satisfaction of and agreed in writing by the local planning authority."

The challenge to these conditions was that *"the inspector in fact imposed defective conditions, namely conditions 20 and 21, because they were unenforceable, imprecise, and did not achieve the inspector's objectives."*

However the Deputy Judge found that *"I do agree with (the claimant) that the wording of conditions 20 and 21 is not an exemplar of clear English, or indeed of model conditions. That, however, is not enough to succeed on ground 1. Read in context there is sufficient in the words used within both conditions to enable them to pass the test set out in Circular 11/95 and to come within the words of Lord Denning in Fawcett Properties v Buckingham County Council [1961] AC 636 at 678 when he emphasised that a planning condition is only void for uncertainty if it can be given no meaning or no sensible or ascertainable meaning. In my judgment, the conditions imposed on the planning permission here can be given a sensible and ascertainable meaning in view of the objectives of the scheme to be submitted and approved by the planning authority."*

The implication of this judgement is that it confirms the legal position on conditions in relation to AM. Identical conditions (or even similar conditions but with clearer use of English!) can be expected to be imposed on future decisions. This may reduce or negate the risk of turbines causing harm to residents through AM and also gives developers more certainty about decisions on projects where AM may have been raised as a potential issue. However the conditions may also place a greater onus on developers throughout the scheme's operation.

DLP Planning have wide experience in dealing with issues arising from renewable energy proposals, including in particular wind farms. Should you have any queries in relation to the specific issues discussed in this briefing, or indeed any other planning problem, please contact your local office.

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