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MCS GUIDANCE DOCUMENT

Requests Regarding Certification of Potentially Novel Wind Turbine Designs

MCS is often approached by companies (or individuals) who are seeking to certify what they consider to be novel wind turbine designs. Often these products are designed to be included in buildings and/or the built environment, although this is not necessarily the case. Until late 2012 these enquiries were initially dealt with by the MCS secretariat (who are administrators, and not ordinarily from a technical background) and then by the MCS wind technical working group (who are from a technical background, but who are unpaid volunteers from industry). The experience gained over the many years of dealing with such enquiries is that so far all of the products can be accommodated within the existing MCS wind standards, albeit that in some cases there are valid advanced technical questions that benefit from guidance regarding interpretation. It has also been observed that the cost of certification with the existing MCS wind standards is higher than these companies may welcome, however so far there has not been a situation observed where the costs are outwith the range of costs that 'normal' wind turbines are experiencing for certification from the accredited MCS certifying bodies. It has been observed that ordinarily these designs are not in fact novel as the proponents are in many cases unaware of the great diversity of prior art in the wind turbine industry, and that fact combined with the professionalism of the unpaid volunteers has ensured that to date there have been no commercial conflicts of interest.

Because of the experience that all proposals can be accommodated in principle within the existing MCS wind standards, and because of the practical experience that very few enquiries are taken much further, it has been decided that henceforth all enquiries must be routed through an certifying body that is accredited for the purposes of testing wind turbines in accordance with the MCS scheme. The certifying body can then act as a screening service who manage the normal questions that ordinarily arise, in a normal commercial manner, and only bring the more advanced questions forwards to MCS as written requests from the certification body for specific guidance, where they will then be dealt with by the MCS wind technical working group. Another advantage of routing requests in this manner is that it will become easier to manage any commercial confidentiality concerns that might arise. If necessary the MCS wind technical working group will form a subcommittee of the relevant discipline experts to provide guidance to the particular certifying body in respect of the challenges of the particular design. Please note that this is envisaged as a discussion between the certifying body and the MCS working group, not directly between the proponent and the MCS working group.

An area where the MCS wind technical working group has noted that is often weakest in proposals is the matter of performance prediction in situ. A principle of the MCS scheme is that the performance of a certified product must be capable of being predicted with some reasonable degree of confidence to any given customer, so that the customer can make an informed purchasing decision in comparison with other MCS products and other MCS technologies. This principle is incorporated in the existing MCS wind installer standard, and any novel design must also be able to make a proposal as to how they will be able to assure MCS that this continues to be met. As noted previously there has yet to be

an instance where this cannot in principle be achieved but nevertheless in practice it has been observed that many proposals could benefit from additional preparation in this area.

Proponents of novel wind turbine designs are recommended to read the existing standards carefully, and to investigate the references very carefully. The details of how novel turbines can be accommodated within these existing standards is contained within them, but it can take careful reading to understand how to access this flexibility. A good understanding of the standards, and an early engagement with prospective certifying bodies, is recommended at a very early stage in consideration of a project.

AMENDMENTS ISSUED SINCE PUBLICATION

Document Number	Amendment Details	Date
1.0	First Issue	07/02/2013
1.1	Rebranding of document, update of email and website addresses and cosmetic changes.	06/08/2019