

Electricity Act 1989 (Sections 36, 37, 62(3) & Schedule 8) Town and Country Planning Act 1990 (Section 90) and The Electricity Generating Stations and Overhead Lines (Inquiries Procedure) (England and Wales) Rules 2007.

Application by Vattenfall, dated 30 November 2007 for consent under Section 36 of the Electricity Act 1989 to construct and operate a 59.5MW wind turbine generating station in Powys, Mid Wales ('Llanbadarn Fynydd')

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**Written Submission, Local Transport Issues**

**Mr Peter Mansell BSc CEng MICE FCIHT**

**Key Transport Consultants Ltd**

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## **1 INTRODUCTION**

- 1.1 This Written Statement of Evidence has been prepared on behalf of Vattenfall in relation to its proposed 17 turbine Llanbadarn Fynydd Wind Farm. It has been prepared by Mr Peter Mansell, a Director of Key Transport Consultants Ltd. Mr Mansell has a BSc degree in Civil Engineering, is a Chartered Engineer, is a Member of the Institution of Civil Engineers and a Fellow of the Chartered Institution of Highways and Transportation. He has over 28 years of transport engineering and planning experience, and has presented evidence at public inquiries on a range of development projects including a wind farm.
- 1.2 A Statement of Common Ground (SOCG) has been signed between Vattenfall, Powys County Council (PCC) and Welsh Government Transport (WGT) (VATT/TRANS/SOCG/SSA-C). This confirms the parties' agreement that there are no significant local transport effects with the potential to arise as a result of the Llanbadarn Fynydd Wind Farm, subject to mitigation being put into place prior to and during construction. This mitigation is set out within the environmental documents prepared by Vattenfall during the course of the application's consideration and the individual sections are identified within the SOCG. The mitigation can be delivered via conditions issued with a consent and overcomes the local transport reasons for objection raised by PCC in the Form B.
- 1.3 The purpose of this Statement of Evidence is to address matters raised in the Proof of Evidence of Mr Durgan on behalf of the Alliance relating to local transport issues subject to examination in Session 1 of the Inquiry. It had been intended by Vattenfall that these issues would be dealt with by Cross Examination of Mr Durgan during Session 1 of the Inquiry, but following the issue of the detailed timetable for Session 1 late in the afternoon on 30<sup>th</sup> August 2013, it has been noted that Mr Durgan does not intend to present his evidence and consequently this statement has been prepared.
- 1.4 I confirm that this evidence is true, and has been prepared and is given in accordance with the guidance of my professional institutions. I also confirm that the opinions expressed are my true and professional opinions.

## **2 ISSUES RAISED BY MR DURGAN RELEVANT TO PUBLIC INQUIRY SESSION 1 - LOCAL TRANSPORT**

- 2.1 At his paragraph number 25. Mr Durgan questions the construction programme included in the July 2008 SEI as regards AIL movements and concrete deliveries.
- 2.2 Mr Durgan may have misunderstood the ES and SEIs in suggesting that Llanbadarn Fynydd Wind Farm will have 272 AILs delivered over two months, as this is actually

double the number of deliveries. There will be 136 AILs to deliver the turbine components for the 17 turbines. The AIL vehicles will be reduced in size for the return journey when they will travel as an empty HGV rather than an AIL. Allowance has been made in the Strategic Traffic Management Plan for the Mid Wales Wind Farms for convoys of three AIL vehicles. Initially it has been agreed that the convoys will run with a maximum of two AILs but if this works satisfactorily, the police will consider allowing an increase in the convoys to three AILs. Should three AIL convoys be used for Llanbadarn Fynydd Wind Farm, the two month delivery programme that has been assumed would be achievable. Should the shorter two AIL convoys still be operating, it is likely that the AIL delivery programme would extend into a third month. This is a cumulative issue which will be covered in Session 4.

- 2.3 In the Llanbadarn Fynydd ES, it was assumed that foundation sizes of 320m<sup>3</sup> of concrete will be required. The actual size will be determined at detailed design stage when geotechnical surveys have been undertaken at the specific sites. It is possible that the foundation sizes might need to increase by up to 20%, depending on the detailed design, which is significantly less than the figure of 500m<sup>3</sup> that Mr Durgan has quoted. At this stage a final decision has not been taken as to whether concrete will be imported or batched on site. At present, it has been assumed, as a worst case, that ready-mix concrete will be imported.
- 2.4 At this stage in the projects development, the programme and quantities of materials are estimates based on experience from other wind farm developments. Clearly it is not practicable to predict the exact day when a particular construction activity will take place and hence the estimated number of HGV movements is averaged over each of the months during the construction period. There will inevitably be some days during a month when flows will be higher, eg during a concrete pour if ready-mix is imported, and correspondingly some days when flows will be lighter than estimated. The assessment of the cumulative impacts in Session 4 will consider this issue further.
- 2.5 I therefore do not consider Mr Durgan's concerns to be substantive issues and the cumulative effects will be dealt with in Session 4.
- 2.6 At his paragraph number 26.a. Mr Durgan questions the operation of the intervisible passing places on the county highway classified as the C1057.
- 2.7 As demonstrated in the June 2013 SEI and agreed with PCC in the SOCG, the passing places on the C1057 will allow opposing HGVs to pass each other. Before setting off from one passing place, an HGV driver will have to make sure that there are no vehicles in either an opposing direction or travelling in the same direction on that section of the highway. This will require appropriate management by the contractor with clear signing

and instructions to drivers. In the unlikely event that construction traffic ignores the management regime, the contractor will be required to use banksmen.

- 2.8 The traffic survey reported in the February 2013 SEI recorded a weekday average two-way daily traffic flow of just 112 vehicles demonstrating the very quiet nature of the lane. Drivers using the lane are likely to be local residents or farmers and a pre-construction communication exercise will advise of the temporary traffic management regime during the construction period.
- 2.9 Abnormal Indivisible Load (AIL) convoys transporting the turbine components will travel under police escort on the public highway and the C1057 will be temporarily closed to traffic to allow each convoy to pass along. There will therefore be no opposing traffic on the C1057 during AIL movements.
- 2.10 I therefore do not consider Mr Durgan's concern to be a substantive issue and do not consider further widening of the lane will be necessary.
- 2.11 At his paragraph number 26.b. Mr Durgan suggests that more certainty is required where the drawings for the highway works required on the C1057 note that earthworks are expected to be contained within the fence line.
- 2.12 Detailed topographical surveys and geotechnical surveys are currently not available and would not be expected at this pre-consent stage. Following consent, should the earthworks determined at detailed design stage extend beyond the fencelines, this will only impact on the existing post and wire fence, and land under the control of Vattenfall.
- 2.13 I therefore do not consider Mr Durgan's concern to be a substantive issue.
- 2.14 At his paragraph number 26.c. Mr Durgan notes he has found no reference to a Stage 1 Road Safety Audit relating to the access to the site off the A483.
- 2.15 A Stage 1 Road Safety Audit was undertaken in January 2013 and is included as an appendix to this statement. The audit highlighted one minor issue to be dealt with at detailed design stage and an on-going maintenance requirement to keep visibility splays clear of encroaching vegetation.
- 2.16 Mr Durgan's concern has therefore been dealt with.
- 2.17 At his paragraph number 26.d. Mr Durgan raises concerns about the impact of the proposed site access on the residents of Hafod Fach. I understand that the owners (who are also the occupiers) of Hafod Fach are interested parties in the development and are aware of the proposed design.
- 2.18 I therefore do not consider Mr Durgan's concern to be a substantive issue.

- 2.19 At his paragraph numbers 27 and 31.a. Mr Durgan raises concerns that are largely associated with the cumulative effects of construction traffic that are to be dealt with in Session 4 of the Public Inquiry. In terms of the C1057, the impact by Vattenfall's construction traffic will be limited to a twelve month period during the construction of the wind farm. Once the wind farm is operational, the C1057 will return to being a very lightly trafficked country lane.
- 2.20 I therefore do not consider Mr Durgan's concern regarding the C1057 to be a substantive issue and cumulative effects will be dealt with in Session 4.

### **3 CONCLUSION**

- 3.1 Agreement has been reached with PCC and WGT that there are no substantive local transport issues associated with the Llanbadarn Fynydd Wind Farm that cannot be appropriately mitigated by conditions applied to a consent.
- 3.2 In terms of the evidence presented by Mr Durgan, I have found no substantive issues that should feature in the determination of this application.

# **APPENDIX**

## **LLANBADARN FYNYDD WIND FARM A483 ACCESS STAGE 1 ROAD SAFETY AUDIT**