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Sent: 04 April 2011 15:24
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Subject: Newfield Inquiry - Statement of Common Understanding (MF Ref:MDG0001/X2251)
Attachments: 8092683.doc

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Further to the various extensions agreed between the Applicants and the Ministry of Defence, please find attached the Statement of Common Understanding as agreed between both parties.

Kind regards,

{REDACTED}
 {REDA
 {REDACTED}
 {REDACTED}{REDACTED}
 {REDACTED}
 {REDACTED}

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**ELECTRICITY ACT 1989
APPLICATION UNDER SECTION 36**

**STATEMENT OF COMMON UNDERSTANDING
BETWEEN
WIND ENERGY (NEWFIELD) LIMITED
and
THE SECRETARY OF STATE FOR DEFENCE
in relation to
AN APPLICATION FOR STATUTORY CONSENTS
TO CONSTRUCT AND OPERATE A PROPOSED WIND FARM
AT NEWFIELD, BALGRAY HILL, NEAR LOCKERBIE.**

MORTON
FRASER
SOLICITORS

1. Introduction

- 1.1 For the reasons detailed in paragraphs 1.2 and 1.5 below, this Statement of Common Understanding has been prepared and agreed between Wind Energy (Newfield) Limited (hereinafter referred to as “the Applicant”), and, The Ministry of Defence (hereinafter referred to as “the MoD”) acting on behalf of the Secretary of State for Defence. For the purposes of the Statement of Common Understanding, the Applicant and the MoD are collectively referred to as “the Parties”.
- 1.2 An application has been made to the Scottish Ministers under section 36 of the Electricity Act 1989 (hereinafter referred to as “the 1989 Act”), by the Applicant for the necessary statutory consents to construct and operate on land at Newfield, Balgray Hill, Near Lockerbie, a wind turbine generating station comprising 21 turbines and associated development (hereinafter referred to as “the proposed Newfield wind farm”). The Scottish Ministers received objections in relation to the proposed Newfield Wind Farm from a number of parties including the planning authority, Dumfries and Galloway Council, the MoD, and various third parties.
- 1.3 In accordance with section 36(8) of, and Schedule 8 to, the 1989 Act, the Scottish Ministers caused a public inquiry to be held for the purpose of considering the objections to the proposed Newfield wind farm. The objection lodged by the MoD, on behalf of the Secretary of State for Defence and dated 2nd December 2009, has not been withdrawn. The MoD has therefore lodged evidence in support of the objection and appeared at the opening of the Public Inquiry on Tuesday 1st February 2011 before {REDACTED}, the Reporter appointed by the Scottish Ministers to conduct the Public Inquiry and report to Scottish Ministers.
- 1.4 Following discussions between the Applicant and the MoD at the Public Inquiry on 1st and 8th February 2011, it was agreed that a document should be

prepared on behalf of the Parties and lodged as an inquiry document with the Reporter, the purpose of which is to assist the Reporter by:

- (a) recording the agreement between the Parties in respect of the evidence which has been submitted in relation to the MoD's objection, and which the Parties are agreed should be treated by the Reporter as non-contentious evidence; and,
- (b) identifying the issues that remain contentious between the Parties in respect of the evidence which has been submitted in relation to the MoD's objection.

1.5 Further, the purpose of identifying the contentious and non-contentious issues in this Statement of Common Understanding is also to provide the Reporter with an agreed position statement between the Parties, to assist him in his decision-making regarding the efficient conduct or disposal of the Public Inquiry by avoiding unnecessary leading of evidence, repetition of evidence and unnecessary cross examination of witnesses. It is understood between the Parties that the Reporter will have regard to the terms of this Statement of Common Understanding when considering the Parties' separate representations as to the appropriate form of inquiry procedure to be adopted for the purposes of examining the MoD's objection.

2. Background

2.1 The MoD is responsible for the operation, maintenance and safeguarding of the UK Seismological Array located at Eskdalemuir (hereinafter referred to as "the Array"). The Array is described in two of the documents lodged by the Parties [MOD2 and MOD4/WEN12]. The Parties agree the content of these documents, which should be admitted as forming non-contentious evidence for the purposes of this Public Inquiry. The Array has been operational since 1962 and since that date has recorded nearly four hundred seismic signals associated with presumed nuclear test explosions occurring up to 15,000 km from the Array. It is a well-calibrated seismic station because the large numbers of signals that have been detected calibrate the paths from known nuclear test sites. It is the longest operating steerable array in the world. The

site is considered to be in a very quiet seismological location and this, together with the other factors, make it an unparalleled resource for forensic seismology [MOD4/WEN12 at pages 3 – 5].

- 2.2 On 6th April 1998 the United Kingdom ratified the Comprehensive Nuclear Test-Ban Treaty (hereinafter referred to as “the CTBT” [MOD 1]), which bans nuclear-test explosions. In terms of the Treaty, the Array is designated an auxiliary seismic station within the International Monitoring System network (hereinafter referred to as “the IMS”) and is also designated a substitute primary IMS seismic station in the event a primary IMS seismic station breaks down. [WEN1, page 1]. A written statement has been prepared by the MoD’s Central Legal Services, which explains the nature of the CTBT and the obligations that the UK has under the CTBT. [MOD15]. The relevance of those obligations to the Array is discussed in the Information Sheet produced by {REDACTED} at the request of the MoD in October 2010. [WEN1]. The Parties are agreed that documents MOD1, WEN1 and MOD15 are what they bear to be and should be admitted as forming non-contentious evidence for the purposes of the Public Inquiry save that the Applicant does not agree the terms of paragraph 14 of document MOD 15 to the extent that it refers to there being “no adverse effects” on the Array given the existence of an agreed threshold as referred to further below.
- 2.3 The IMS network has been built to support verification of the CTBT and, therefore, the Array is part of the verification system. In terms of Article IV (6) of the CTBT, having ratified the Treaty the UK Government is obliged to ensure that there is no interference with the performance of the verification system [MOD4/WEN12 at page 7 and WEN 1 at page 1]. Further, it is agreed between the Parties that it is the responsibility of the MoD, on behalf of the Secretary of State for Defence, to safeguard the Array. [See the precognitions of: {REDACTED} at paragraphs 6.5 and 7.1 to 7.3; {REDACTED} at paragraph 3.4; and, {REDACTED} at paragraph 5.2, together with the Introduction to his report in November 2010 (WEN14/MoD11 at page 2)].

2.4 In response to concerns that the siting of onshore wind farm development in the vicinity of the Array could interfere with the performance of the Array, the Eskdalemuir Working Group (hereinafter referred to as “the EWG”) was formed in 2004. The EWG was formed to consider the potential impact from onshore wind farm development in the vicinity of the Array, in the context of the UK Government’s commitments under the CTBT. It was funded by the MoD, Department of Trade and Industry and the British Wind Energy Association (now RenewableUK). The EWG commissioned a detailed research study by the Applied and Environmental Geophysics Group led by {REDACTED} at Keele University (hereinafter referred to as “the Keele Group”), to establish the nature of interference from wind turbines that degrades the detection capabilities of the Array. [WEN1, page 1 and WEN14/MoD11 at pages 3 to 4]. This research study is hereinafter referred to as “the 2005 Styles Report”. The Parties agree the content of sections 1 to 3 of {REDACTED} , precognition, sections 1 to 4 of {REDACTED} , precognition, and sections 1 to 3 and section 5 of {REDACTED} , precognition, which provide relevant background to the safeguarding of the Array and the involvement of the individual witnesses with this matter.

2.5 The conclusions of that research study have informed the formulation of a policy for the protection of the Array by the MoD. [WEN14/MoD11 at pages 4 to 7]. The national and international importance of the forensic seismological capability of the Array is not disputed by the Applicant.

3. The Effects of Low Frequency Seismic Vibration from Wind Turbines.

3.1 The Parties are agreed that there have been various studies and research projects carried out over the period from 1995 to date, for the purpose of investigating the effects of low frequency seismic ground vibration and infrasound on seismic monitoring equipment. Various of these studies and research projects, and related scientific papers, have been submitted as documents to the Public Inquiry and form documents WEN3 to WEN13, inclusive, and MOD3 and MOD5. The Parties are agreed that these documents are what they bear to be and should be admitted as forming non-contentious evidence for the purposes of the Public Inquiry, and their findings

adopted *quantum valeat*. The Parties agree that it is recorded in the Report of the 25th session of Working Group B to the Comprehensive Nuclear Test-Ban Treaty Organisation (hereinafter referred to as “the CTBTO”) that the results of the work of the Keele Group were presented to the CTBTO [Paragraph 43 on page 9 of WEN2]. The Parties are agreed that WEN15 is not relevant to the issues that remain contentious between the Parties. Further, relative to these studies, the Parties agree the content of section 4 of Professor Styles’ precognition and sections 4 & 5 of {REDACTED} precognition and section 5 of {REDACTED} precognition.

3.2 Of the various studies and research projects that have been produced, the only research project of direct relevance to the impact that wind turbine development in the vicinity of the Array will have on the forensic seismological capability of the Array, is the 2005 Styles Report commissioned by the EWG. The Parties are agreed as to the conclusions to be drawn from this research project carried out by the Keele Group, and, agree the content of sections 6 & 7 of {REDACTED} precognition, sections 6 & 7 of {REDACTED} precognition and sections 6 & 7 of {REDACTED} precognition.

4. Safeguarding of the Array

4.1 As a result of the work carried out by the Keele Group and the recommendations contained in the 2005 {REDACTED} Report, the EWG considered the basis upon which to review the precautionary approach of the MoD to object to any wind farm development within 80km of the Array. The Parties are agreed that based upon the technical advice of AWE Blacknest, and with the agreement of the EWG, the MoD initiated the following safeguarding arrangements:

- (i) an exclusion zone of 10km around the Array within which no wind farm development would be acceptable;
- (ii) a consultation zone over the distances of between 10km to 50km (as opposed to 80km) from the Array, within which wind farm development would only be permissible in the event that it would not

result in the threshold for the maximum permissible background seismic ground vibration being exceeded;

- (iii) the adoption of the Keele Group's recommendation that the maximum permissible seismic ground vibration from existing and proposed wind farm development measured at the Array should be fixed at 0.336 nanometres of ground displacement; and,
- (iv) use of the Keele Group's predictive model by Defence Estates to calculate the aggregate vibration taking account of the contribution from any proposed wind farm within the consultation zone (on the assumption that the wind farm proposal did not incorporate a vibration mitigation measure), to assess whether or not the threshold would be exceeded as a result of the proposed development and, if so, object to the proposed development on the basis it would result in an unacceptable impact upon the detection capabilities of the Array.

4.2 The Parties agree that this safeguarding approach was reported to the CTBTO in 2005. Further it is agreed between the Parties that following completion of this work, the MoD provided a briefing to Ministers seeking confirmation of the policy approach that the MoD should adopt to the safeguarding of the Array from degradation in its capability as a result of wind farm development. The Parties agree (by virtue of agreeing paragraph 6.5 and section 7 of Mr. Pallester's precognition) that as a result of the instruction from the Under Secretary of State for Defence to proceed urgently to initiate safeguarding procedures, the MoD put in place a policy basis upon which Defence Estates would decide whether or not to object to a proposed wind farm development within the consultation zone. It is the position of the MoD that the UK Government would be in breach of its obligations under the CTBT if it allowed the detection capabilities of the Array to be compromised.

4.3 The Parties are agreed that since 2005 it has been the policy of the MoD to object to a proposed wind farm development in the consultation zone if it is predicted that the operation of the wind farm, either individually or in combination with existing or consented wind farms, would result in the threshold being exceeded. The MoD will pursue an objection to such

proposed development unless: (1) the developer provides mitigation which ensures that the development would fall within the threshold; (2) the developer can demonstrate to the satisfaction of the MOD that the mitigation technology is effective, and, that the proposed development would not have an unacceptable impact on the capability of the Array; and, (3) the mitigation and its maintenance and monitoring will be secured for the lifetime of the development by an appropriate condition and legal agreement. In relation to this policy approach, the Applicant takes no issue with paragraphs 3.3 to 3.5 of the Statement of Case for the MoD (see section 3 of the Applicant's Statement of Case and Parties' agreement in relation to the content of section 7 of {REDACTED} precognition).
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4.4 It is therefore agreed between the Parties that the onus is on the developer to demonstrate that suitable mitigation technology could be put in place, which would ensure that the threshold will not be exceeded. It is agreed between the Parties that the operation of the proposed Newfield wind farm without effective mitigation would result in the threshold being exceeded. The MoD is, therefore, not prepared to withdraw its objection until it has been demonstrated to its satisfaction that suitable mitigation technology exists, and, can be put in place to ensure that the operation of the proposed Newfield wind farm will not result in the threshold being exceeded. The Applicant's position is that the suitability of the technology has been demonstrated and on that basis contends the MoD's objection should be withdrawn and all remaining matters that require final agreement between the parties prior to the erection of turbines at the proposed Newfield wind farm are addressed by an appropriate suspensive condition and related binding legal agreement. The basis upon which the Parties have adopted their respective positions is outlined in sections 5 & 6 below.

5. Technical Issues relating to the proposed Newfield wind farm.

5.1 The Parties are agreed that as at the date of publication of the 2005 Styles Report, it was concluded by the Keele Group that "there were no current, routinely implemented vibration mitigation technological solutions which can reduce the vibration from wind turbines. Technologies which are helpful in

the reduction of vibration from mechanical systems **do** exist and in the long-term and at some additional cost it should be possible for manufactures/developers to modify/augment these for application to wind turbines to reduce the levels of vibration transmitted into the ground.” (See page 90 of MOD4).

5.2 The Parties are agreed that during the intervening period, the Applicant has procured the design, development, installation, commissioning and operation of a technology that could be retrofitted to existing turbines or installed at the time of construction to reduce vibration levels within the frequency band of 3 to 6 Hz. The company engaged to develop the proposed mitigation technology is Reactec Limited. The Parties are agreed that the use of tuned mass dampers in bridges and buildings around the world is a well understood and proven mitigation for the reduction of vibration levels in such structures. The work by Reactec involved mathematically modelling several possible vibration solutions, with the result that the only commercially viable solution was a tuned mass damper. The installation and use of the tuned mass damping system within large scale wind turbines is described by Reactec as the “Seismically Quiet Tower” (hereinafter referred to as “SQT”) device. It is the position of the MoD that the research and development work carried out by Reactec Limited is pioneering work in that the SQT is the first application of a tuned mass damper to reduce seismic ground vibration from wind turbines in the far field. It is of relevance to the MoD’s position that no other mitigation measure has been identified or proposed by the Applicant.

5.3 The Parties are agreed that it is the SQT device being developed by Reactec Limited that the Applicant has put forward as the proposed mitigation measure. A prototype has been installed and been in operation at Craig wind farm for over three years. In accordance with its policy approach to the protection of the Array, the MoD wishes to be satisfied that deployment of the proposed mitigation measure will ensure that the operation of the proposed Newfield wind farm would not have an unacceptable impact on the detection capability of the Array.

- 5.4 The Parties met at the offices of Defence Estates in Sutton Coldfield on 8th September 2010 to discuss the MoD's outstanding objection to the proposed Newfield wind farm. At that meeting the MoD discussed with the Applicant the various actions that would require to be completed prior to the MoD's objection being withdrawn. A minute of that meeting is produced as an Inquiry document [WEN22/MOD8], and the Parties are agreed that this document is what it bears to be and should be admitted as forming non-contentious evidence for the purposes of the Public Inquiry.
- 5.5 Subsequent to that meeting a letter was sent on behalf of the Applicant, dated 15th September 2010, formally requesting that the MoD withdraw its objection on the basis set out in that letter. The Parties are agreed that a copy of this letter is produced as document WEN18/MOD9, and the terms of the letter are agreed as forming non-contentious evidence for the purposes of this Inquiry. The Applicant has confirmed to the MoD that the mitigation proposal involves retrofitting the SQT device to the existing turbines at a wind farm known as Craig wind farm, which is owned and operated by a third party Craig Wind Farm Limited. This is proposed as part of the mitigation proposal in addition to deploying the SQT device on all 21 turbines within the proposed Newfield wind farm. The Parties are agreed that the rationale for this approach is that the turbines within the Craig wind farm are the closest existing turbines to the Array, and, that the application of the proposed mitigation technology is intended to have a beneficial effect by reducing the aggregate vibration contribution presently predicted (by the ^{ACTF}RED model) at the Array from existing, consented and proposed wind farms.
- 5.6 The Parties are agreed that a technical report was to be provided by the Applicant from {REDACTED} confirming the effectiveness of the proposed mitigation technology. It was a matter of agreement that the MoD would commission {REDACTE of AWE Blacknest to review the report and provide advice to the MoD as to whether or not the Applicant's experts had demonstrated the effectiveness of the proposed mitigation technology. A letter dated 14th October 2010 from Defence Estates to the Applicant sets out the technical matters which the MoD and {REDACTE wished addressed in the

report. The Parties are agreed that a copy of this letter is produced as document WEN19/MOD10, and the terms of the letter are agreed as forming non-contentious evidence for the purposes of this Inquiry. The Parties are agreed that a series of tripartite meetings have taken place since the meeting in September 2010, between the Applicant's experts, {REDACTED} of Reactec and {REDACTED}, and, the MoD's subject matter expert, {REDACTED}

5.7 The Parties are agreed that the discussions have centred upon the development of the Proposed Mitigation Report (hereinafter referred to as "the PMR") being prepared by Reactec, with input from both Parties' experts, in order to provide the level of detail required by the Parties' legal advisers to formulate Heads of Terms and an Agreed Methodology. It was understood by the MoD that the PMR (MOD13) was being produced to provide the information requested by the MoD in the said letter of 14th October 2010. It is the Applicant's position that the PMR was produced as a draft document which was to be developed in collaboration with the MOD via an iterative process over time in order to address holistically the entire process of measurement, deployment and monitoring of the mitigation technology. It was intended to meet the MoD requirements in the said letter of 14th October 2010 but to do so through that iterative development as the Parties moved forwards through objection removal to application of suspensive condition and development of a scheme and/or legal agreement.

5.8 The Parties are agreed that the report was commissioned from Professor Styles to provide the basis for technical justification of the mitigation strategy proposed in the Reactec PMR, and was produced to the MoD on 1st November 2010. The report entitled "An Assessment of the REACTEC/Wind Energy damping system for the reduction of ground vibration in the 3 to 6 Hz band and the implications for Eskdalemuir IMS seismometer array station" forms document WEN14/MOD11. It is hereinafter referred to as "the 2010 Styles Report". The Parties agree the content of pages 1 to 20 of the 2010 Styles Report as forming non-contentious evidence for the purposes of the Public Inquiry.

5.9 The MoD does not agree the conclusions reached by Professor Styles in respect of his preliminary assessment of the Damping Factor contained in pages 21 to 27 of the 2010 Styles Report, or his overall conclusions contained in pages 28 to 29 of the Report. The MoD does not, therefore, agree that the effectiveness of the proposed mitigation technology to be applied at Craig wind farm and the proposed Newfield wind farm has been demonstrated by a quantitative analysis that includes reliable empirical measurements and modelling studies. The effectiveness measure that {REDACTED} has utilised for the purposes of his quantitative analysis is the Damping Factor (“DF”). His preliminary assessment of the DF is based on measurements of vibration levels using accelerometers installed at the base of a turbine at Craig wind farm before and after that turbine had been fitted with the prototype SQT device. {REDACTED} explains in paragraphs 9.8 to 9.15 the technical basis upon which he has concluded that the effectiveness of the proposed mitigation technology has not been adequately demonstrated by this quantitative analysis. {REDACTED} has advised the Applicant’s experts that he considers data from measurements using seismometers in the far field will be required to demonstrate the mitigation effectiveness. It is the Applicant's position that {REDACTED} states in paragraph 9.12 of his precognition that "Nevertheless the data set [note that this is the currently available data set] acquired by {REDACTED} with the application of more sophisticated data processing techniques has the potential to estimate reliably the reduction in vibration at the base of a turbine due to the installation of the SQT". This is agreed by the Applicant who notes that data collected from the turbine is reliable but that for the reasons set out in 5.10 the Applicant has agreed to develop a measurement methodology based on measurements in the far field.

5.10 Further, it is the position of the MoD that the Applicant was made aware of the need to provide a report quantifying the effectiveness of the proposed mitigation technology, by the said letter of 14th October 2010. The terms of that letter made clear the need for empirical observations and their interpretation and quantitative analysis using this data. It was implicit that such data used for the requested quantitative analysis would be reliable. Since adjournment of the Public Inquiry on 8th February 2011, the tripartite

discussions referred to above have continued and additional project work has been identified to address this issue. It is the MoD's view on the basis of {REDACTED} expert advice that the preliminary assessment of the empirical observations previously obtained through the use of accelerometers installed at the base of a turbine at Craig wind farm is not reliable. It is the position of the MoD that data will require to be obtained using the revised measurement methodology, before there is any prospect of the Applicant's experts having available to them reliable empirical observations for the purpose of carrying out a quantitative analysis to assess the effectiveness of the mitigation technology. This is not the Applicant's understanding. The Applicant's view is that data collected at the base of the turbine is reliable but that MoD has now indicated that it requires greater statistical certainty through analysis of data collected in the far field. The Applicant's experts have confirmed that they are willing to develop an alternative measurement methodology using data gathered in the far field in order to meet the further requirements of the MOD but that the existing assessment based on measurements at Craig wind farm should provide sufficient assurance to the MOD as to the effectiveness of the mitigation. The Applicant's experts have worked with {REDACTED} to develop an alternative measurement methodology using data gathered from seismometers in the far field.

- 5.11 The MoD's position is that until this work has been completed it is unlikely that the effectiveness of the proposed mitigation technology will be adequately demonstrated through quantitative analysis. It is of relevance to the MoD's position that since adjournment of the Inquiry, it has become apparent that the assessment of effectiveness that has been carried out by the Applicant's experts is based mainly on modelling studies carried out by Reactec. While the Applicant seeks to rely upon measurements carried out at Craig wind farm after the SQT prototype was fitted to one turbine, it is the position of the MoD that it has not yet been provided with any useful data. It follows from the above that the MoD fundamentally disagrees, on the basis of the evidence submitted to date, with the assertions made on behalf of the Applicant that it has been demonstrated that the proposed mitigation would achieve the level of mitigation required to ensure the threshold is not exceeded.

5.12 It is the position of the Applicant that the only work that remains to be carried out to finalise the measurement methodology relates to the need (or otherwise) for taking of certain further measurements and finalisation of the frequency weighting curve. The Applicant considers this is capable of agreement among the three experts in the short term. Accordingly the Applicant fundamentally disagrees with the MoD's position on demonstrating the effectiveness of the technology. Its effectiveness has been demonstrated and measured at Craig wind farm for over three years. The further requirements now requested by the MoD for measurement in the far field have been addressed by the further work carried out as noted in paragraph 5.10 above. The actual measurement of the impact of the mitigation technology on Craig wind farm and on Newfield wind farm once deployed on the respective projects will in fact provide evidence that the technology has achieved the necessary level of effectiveness. The Applicant is willing to carry out such measurement in accordance with the agreed measurement methodology under binding contractual terms. With regard to the limited matters that remain to be finalised in the ongoing technical discussions, the Applicant is working with the MoD to finalise whether or not any further measurements are required and the frequency weighting function forthwith. The Applicant is willing to deal with each of these items under binding contractual terms to the extent not agreed through ongoing discussions of the three experts in the mean time.

5.13 The Parties have set out in paragraph 5.7 their respective understanding as to the purpose of the PMR, which was commissioned by the Applicant from Reactec. The Parties are agreed that since adjournment of the Public Inquiry, the Applicant's solicitors have intimated the intention on the part of the Applicant to produce an updated PMR. This updated PMR would take account of the work carried out on the measurement methodology, referred to above in paragraphs 5.10 & 5.12, and also describe the proposed monitoring system for the life of the proposed Newfield wind farm. The document that was produced to the MoD's solicitors on 26th March 2011 is described as "*a high level summary of the process to measure the effectiveness of the technology to be installed at Craig and Newfield wind farms for the lifetime of the turbines.*". For ease of reference it is hereinafter referred to as "the

scoping document” and is attached hereto for reference purposes as it does not form an inquiry document.

5.14 It is the position of the MoD that from the terms of the document, it is unclear when this updated version of the PMR would be produced. In addition, at the present time the MoD cannot provide confirmation to the Applicant that there are no additional matters that should be addressed in the revised PMR and that there are not additional matters where additional technical analysis is required. This is stated to be a requirement of the Applicant before developing an updated PMR. The MoD has not previously been provided with such detailed information regarding the proposed monitoring system and there are a number of factual and technical matters upon which further information will be sought from the Applicant’s advisers. At the present time, therefore, it is the position of the MoD that the content of the PMR remains relevant to the MoD’s objection. That position is maintained for two reasons. Firstly, there is presently uncertainty as to when an updated version of the PMR might be produced. Secondly, insofar as the MoD believed the Applicant provided the Reactec report to cover those matters set out in the said letter of 14th October 2010, and which were not covered by the 2010 ^(REDACTED) Report, the assessment by the MoD as to whether or not the MoD’s requirements had been met remain relevant to the MoD’s objection. It is the Applicant's position that the PMR referred to in Section 5.7 is now a historic document based on the previous measurement methodology. Accordingly the Applicant has awaited the outcome of recent technical discussions on the new measurement methodology and has now prepared the scoping document in order to identify on a finite basis what the full requirements of the MoD are in relation to measuring the effectiveness of the mitigation technology and monitoring its effectiveness after deployment. It is the Applicant's position that this is a sensible next step to ensure that a revised PMR can be produced in a timely manner for approval of the MoD that meets the MoD's requirements and that reflects the recent work carried out by the three experts on the revised measurement methodology. It is the Applicant's position that the PMR will be progressed on receipt of the input requested from the MoD but does not

require to be finalised prior to grant of consent with an appropriate suspensive condition.

5.15 After receiving technical advice from {REDACTED}, the MoD does not consider that the PMR referred to in Section 5.7 is sufficiently precise. In amplification of that position, the following concerns were identified from discussion with {REDACTED}. As discussed in paragraphs 5.9 to 5.11, {REDACTED} does not agree with the views expressed by Reactec in the PMR, issued on 29 November 2010, that independent measurement (carried out by Keele University and reported in the November 2010 {REDACTED} Report) validates that the target Ground Noise Ratio of 0.43 had been achieved through installation of the prototype SQT at Craig wind farm. The PMR does not specify exactly what is proposed in relation to both Craig and Newfield wind farms. Furthermore, the PMR referred to in Section 5.7 is not sufficiently precise to satisfy the MoD that a suitable measurement and monitoring system can be put in place to demonstrate the continued effectiveness of the mitigation over the lifetime of the consent. The effectiveness of such a system of post-mitigation measurement is dependant upon the development of a methodology that addresses the technical issues identified in paragraph 9.13 of {REDACTED}'s precognition and within the PMR. Since the adjournment of the Public Inquiry on 8th February 2011, the Parties' experts have agreed a project plan and process to reach agreement on the specification of the frequency dependent weighting function referred to in {REDACTED}'s precognition. Until these issues are resolved the MoD is unable to reach a conclusion as to whether or not the effectiveness of the mitigation can be properly monitored on an ongoing basis throughout the life of the wind farm. These issues are amplified upon by {REDACTED} in paragraphs 9.14 to 9.15 of his precognition. In response to the Applicant's reliance upon the scoping document, it is the position of the MOD that the deficiencies in the PMR have not been resolved by the terms of the scoping document. It is the Applicant's position that a revised PMR should now be developed and the scoping document is intended to scope that work and ensure that it is sufficiently comprehensive to meet the requirements of the MoD.

5.16 Separately, the MoD does not agree that the PMR is sufficiently precise to form a sound scientific basis for agreeing important components of the ongoing monitoring system. The PMR identifies a number of studies that are required to develop the technical methods and standards that will be used in assessing the effectiveness of the proposed mitigation technology. Reference is made to section 2 of the PMR and related appendices, which details the studies and processes that have still to be completed. It is the position of the MoD that it is because of the pioneering nature of the research and development work being carried out by Reactec Limited to develop the proposed mitigation technology, a number of scientific studies and advanced technical processes still require to be completed. The majority of the technical processes involving the creation, definition and progressive development of technical standards for measurement, simulation, calculation and administration of the mitigation scheme, have not yet been developed. The MoD maintains its objection because it has regard to the fact that these technical methodologies and technical standards that are still to be developed will form part of the verification measurement procedure that is a necessary part of the process to purify any suspensive planning condition. These methodologies and technical standards will also underpin the legal obligations that are to be agreed under the proposed Heads of Terms. It is also of material relevance to the MoD's refusal to withdraw its objection that adherence to the agreed methodologies and agreed technical standards will form the basis of compliance with the legal obligations that are to be secured through a legal agreement between the Parties. At the present time there is no agreement between the Parties on these matters. Consequently, the implementation plan contained in the PMR is not agreed by the MoD. In addition, the overall approach to monitoring throughout the life of the proposed Newfield wind farm has not been agreed and reference is made to section 6. In response to the Applicant's reliance upon the scoping document, it is the position of the MOD that the deficiencies in the PMR have not been resolved by the terms of the scoping document.

5.17 The Applicant's position regarding the PMR is set out in sections 5.7, 5.13, 5.14 and 5.15. Further the Applicant notes that the MoD considered the draft

PMR after it was submitted to the MoD in November 2010 and notified the Applicant that the PMR was not in acceptable terms but declined to provide a mark up of the PMR. The Applicant has therefore had difficulty in understanding the extent and nature of the MoD's comments on the PMR and it has not proved possible to develop it on the iterative basis originally anticipated. As already noted, it is the Applicant's view that the PMR as produced in November 2010 has become a historical document given the Applicant's agreement to adopt the revised measurement methodology. The Applicant agrees that a new PMR should be produced to document the new measurement methodology and a system of monitoring the mitigation technology once deployed and has provided the scoping document in order to move that process forwards and to capitalise on the progress that has been made in recent technical discussions among the three experts. The Applicant agrees that there must be an effective monitoring system in place following deployment of the technology.

6. Planning Policy and Legal Issues relating to the proposed Newfield wind farm.
 - 6.1 The Parties are agreed that having regard to the stage at which development of the proposed mitigation technology has reached and the fact the MoD has not withdrawn its objection, should the Scottish Ministers be minded to grant the statutory consents applied for by the Applicant they would require to be satisfied that the MoD's interests could be adequately protected through the use of a suspensive condition attached to the section 36 consent and related scheme and/or legal agreement between the Applicant and the MoD. The Parties remain in dispute as to whether or not the use of a suspensive condition, tied into a scheme and/or legal agreement, is appropriate at this stage. The Parties' respective positions are summarised below. The Parties understand that the Reporter wishes to receive separate submissions as to the appropriate form of further procedure for the purpose of addressing the MoD's objection. It is understood between the Parties that such procedural submissions will return to the question of the use of a suspensive condition,

insofar as each Party considers it necessary to do so for the purposes of the procedural submissions.

- 6.2 The Parties are agreed that the use of suspensive conditions to address aviation objections to section 36 applications for wind farm development has been the subject of a consultation exercise by the Renewable Energy Division of Scottish Government. The Parties are agreed that document WEN23 is a copy of the Consultation Document issued by the Scottish Government and should be admitted as evidence for the purposes of the Public Inquiry, quantum valeat. The MoD agrees with the content of paragraphs 1.4.15 to 1.4.18 of the precognition for {REDACTED} in relation to this document, under explanation that there are other sections of the document of relevance to the Reporter's consideration of the MoD's objection. The Parties are agreed that the Scottish Government is expected to issue new policy guidance on the use of suspensive conditions to address aviation objections in the near future. The Parties are agreed that this guidance is expected to relate solely to aviation issues.
- 6.3 The Parties are agreed that documents MOD6 and MOD 7 are the Reports prepared and issued by {REDACTED}, the Reporter appointed by Scottish Ministers to conduct the Public Inquiry into the Fallago Rig section 36 application, in 2008 and 2010 respectively. The Parties are agreed that document MOD19 is the Scottish Ministers' decision letter granting section 36 consent, subject to inter alia a suspensive condition to address the MoD's objection. The Parties are agreed that the Reporter's findings, reasoning and conclusions in both Reports are of relevance to the approach that may be taken when considering whether or not it is appropriate to address an objection from the MoD through the use of a suspensive condition.
- 6.4 The MoD does not agree that the circumstances surrounding the MoD's objection to the proposed Newfield wind farm are directly analogous to the circumstance that pertained at the time of the reconvened Public Inquiry in April 2010, when the MoD withdrew the objection it had made in relation to safeguarding radar. The MoD does not agree that the approach to safeguarding aviation interests is directly analogous to the considerations

associated with safeguarding the Array. There are particular considerations of relevance only to the Array, and, the possible mitigation solution does not have a proven track record, in contrast to the use of in-fill radars to overcome radar clutter from turbines. Further, the use of a legal agreement to secure the effectiveness of the proposed mitigation solution and a system of monitoring to ensure compliance has not previously been addressed. Consequently, the MoD does not agree with the reasoning and conclusions contained in the precognition of {REDACTED} , as to the appropriateness of using a suspensive condition at this stage in the development of the proposed mitigation solution. The Applicant disagrees with the position of the MoD in section 6.4 and will provide more detailed submission on the use of suspensive conditions separately. In addition the Applicant would make three points in response to 6.4:

6.4.1 to say the use of in-fill radars to overcome radar clutter from turbines has a proven track record is not correct. There is a track record of sorts but it is recent and used wholly in a civilian context;

6.4.2 no part of the solution to the MoD's objection to the proposed Fallago Rig wind farm involved in-fill radar for the purpose identified above by the MOD, and indeed, the solution provided for a form of mitigation not so far installed in the UK; and

6.4.3 the Fallago Rig suspensive conditions specifically envisage that the solution described might be insufficient and provided for an unspecified alternative in that event.

It is the Applicant's view that the solution proposed here is better defined than those (sequentially) provided for at Fallago Rig and it has been installed and operated at Craig wind farm for three years.

6.5 The Parties are agreed that the proposed mitigation, and its maintenance and monitoring must be secured for the operational lifetime of the development by an appropriate condition and legal agreement. This requirement applies not

only to the deployment of the proposed mitigation technology on the turbines at the proposed Newfield wind farm, but also to the proposed retrofitting of the SQT device on the four turbines at Craig wind farm. The Parties are agreed that one or more binding legal agreement(s) has been identified as the mechanism by which the delivery of the proposed mitigation technology, and, its effectiveness would be secured. The Parties are agreed that this is also the mechanism by which the ongoing maintenance and monitoring of the effectiveness of the mitigation throughout the life of the proposed Newfield wind farm is secured.

- 6.6 The Parties are agreed that on 10th December 2010, Morton Fraser LLP issued a draft Heads of Terms to the Applicant's solicitor, Shepherd & Wedderburn LLP. The Parties are agreed that said draft forms document MOD16. The draft was issued with an explanation from Morton Fraser LLP that it was furnished without prejudice to the MoD's objection, and, that it was intended to use the draft to explore the type of condition that might be used in conjunction with a legal agreement between the Parties.
- 6.7 The Parties are agreed that the Applicant's solicitor substantially revised those Heads of Terms and re-issued them to the MoD on 20th December and again on 4th January. The Applicant also produced an "Agreed Methodology" on 4th January 2011, which is produced together with the revised Heads of Terms as document MOD14. The Agreed Methodology has since been superseded by discussions between the Parties' experts. Essential elements of any legal agreement will include: (1) the steps to be taken regarding the monitoring of the effectiveness and maintenance of the mitigation throughout the life of the proposed Newfield wind farm in relation to the turbines at both Craig wind farm and Newfield wind farm; and, (2) the steps to be taken in the event that the mitigation fails at either Craig wind farm and Newfield wind farm. The Applicant has not yet satisfied the MoD as to the remedy that will be available to the MoD in the event that the mitigation fails at Craig wind farm. It is presently the Applicant's position that the owners and operators of Craig wind farm will not be a party to any agreement securing the mitigation. Consequently, the MoD will not be entitled to take direct action in relation to

the continued operation of the Craig wind farm, in the event that the mitigation applied to the turbines in Craig wind farm fails. The Applicant has also not satisfied the MoD as to the remedy that will be available to the MoD in the event that the mitigation fails at the proposed Newfield wind farm.

6.8 The MoD does not agree the position of {REDACTED} that in the absence of a legal agreement the MoD's objection can be dealt with by way of a suspensive condition. The MoD does not agree that it is possible to reach agreement on the terms of a legal agreement until: (i) the effectiveness of the mitigation has been proven to the satisfaction of the MoD; and, (ii) the PMR is sufficiently developed and precise to enable the MoD to satisfy itself that enforceable legal obligations can be implemented through a legal agreement that will secure the ongoing effectiveness of the mitigation at both Craig wind farm and Newfield wind farm, through the life of the proposed Newfield wind farm.

6.9 The Applicant agrees that the MoD requires to be satisfied as to the effectiveness of the mitigation, that it will be properly monitored following deployment and that the MoD requires effective remedies that ensure the mitigation technology remains available at Craig wind farm and at Newfield in the long term. The Applicant notes that there are alternatives to the MoD's suggested remedies certain of which become effective as a by-product of the introduction of measurements in the far field and these have been discussed among the parties experts and are proposed in the scoping document relating to the revised PMR. The Applicant understands that the MoD wishes to continue to support the Applicant in achieving a solution to the current issues between them, and the Applicant is confident it can reach agreement with the MoD on these issues.

Signed for and on behalf of Wind Energy (Newfield) Limited:

Signed for and on behalf of the Secretary of State for Defence: