<u>Fullabrook Windfarm – Timeline of Key Events</u>

Planning application received from Devon Wind Power (DWP) Limited by North Devon Council (NDC). Referred to the Secretary of State for Business, Enterprise and Regulatory Reform for determination as a result of the scale of the proposed development - with NDC remaining a statutory consultee in the process.	October 2004
NDC recommended refusal on a number of grounds, resulting	November 2005
in a planning inquiry.	
Planning Inquiry.	Inquiry Nov 2006 – Jan 2007
NDC's noise related concerns were :	
The predicted noise levels would exceed the existing background noise levels by substantial margins, such that wind turbine noise would often be audible at dwellings and at a potentially intrusive level.	
The noise limits recommended in the ETSU-R-97 Report ('The Rating and Assessment of Noise from Wind Farms'), as endorsed in government planning guidance and relied on by the DWP, did not provide adequate protection to residents in this quiet rural area.	
Even to comply with the ETSU-R-97 noise limits it would be necessary to operate the selected wind turbines in noise-reduced modes. However, DWP did not (in the Council's view) at that time provide convincing evidence that the selected turbines could be operated in such a way to ensure compliance with	

the ETSU-R-97 noise limits.	
Planning Inspector granted the application with noise related planning conditions (as attached separately to this document).	16 th May 2007
Subsequent attempts made by NDC to have this decision overturned at the High Court were unsuccessful.	
DWP shareholders sold their shares to ESB Wind Development UK Ltd - which was subsequently renamed ESB International (ESBI).	24 th July 2009
Construction began on the site.	2010
ESBI appointed Hayes Mackenzie (HM) to develop an operating scheme (mitigation strategy) to ensure that wind farm noise levels would comply with noise limits in all dwellings, wind speeds and directions.	
(Note – HM were not involved with the 2006 Inquiry)	
HM subsequently liaised with NDC's consultant regarding various technical noise related issues during development of the mitigation strategy, resulting in NDC's consultant being satisfied that the basis of the strategy as presented to him appeared robust.	July 2010
Following commissioning, the wind farm began exporting electricity to the National Grid.	Autumn 2011
Noise monitoring protocol for compliance monitoring agreed by HM and NDC's noise consultant.	June 2011
Including HM agreeing on NDC's request that noise monitoring would be undertaken from 12 properties, as opposed to the 5 prescribed in planning condition 21. These properties were initially identified by NDC as being	

representative monitoring locations and subsequently agreed by all parties.	
Noise monitoring exercise undertaken by HM, in accordance with agreed protocol.	Jan – June 2012
Results of noise monitoring (HM Report 2467) submitted to NDC.	September 2012
Report 2467 content verified by NDCs acoustic consultant, with the consultants comments confirming that in relation to the 12 monitoring locations:	October 2012
Noise limits in Condition 20 were exceeded at some wind speeds and in downwind conditions at 4 locations.	
There is a high level of confidence that measured noise levels at a further 4 locations are below the noise limits.	
Levels at the remaining 4 locations were shown to be compliant with the limits, but by small margins.	
Importantly, it was identified that these conclusions relate only to measured noise levels - and took no account of the presence of audible tones.	
Audio recordings at 4 of the locations showed the presence of audible tones at some wind speeds that would incur a penalty (an addition to the measured noise levels) under the terms of the noise conditions.	
The potential application of such a penalty was likely to result in tone-corrected noise levels which would exceed the noise limits.	

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Adjustments were made to turbines by ESB International, to achieve compliance with planning conditions at all properties.	October 2012 – May 2013
Whilst ESBI agreed that tonal noise was present, these adjustments had not taken this into account. It was acknowledged that imposition of the tonal noise penalty would result in the noise limits not being met.	
Further analysis of the existing data, combined with detailed noise modelling work was therefore undertaken by HM to confirm the extent of the tonal noise – to identify what mitigation measures would be necessary to achieve compliance.	
Discussions were held between ESBI, HM and the wind turbine manufacturer to identify potential sources of the tonal element of the noise. This resulted in the rewiring of some of the electrical components of turbines which had been determined to be a recognised source of the audible tones.	
The expectation was that completion of this work would address the tonal noise issues, and result in the noise limits being met.	
Further discussions with NDC's consultant and HM resulted in an agreement being reached in relation to the scope of the noise monitoring exercise which would be undertaken by ESB International / HM, to determine whether or not these measures had successfully resulted in the tonal noise issues being addressed.	May 2013 – August 2014
A noise monitoring exercise was subsequently undertaken from 8 properties - all of which were identified as having the potential to be adversely affected by the tonal element of the noise.	
Results of noise monitoring (Report 2761) undertaken by HM	29 th August 2014

submitted to NDC.	
Deposit 2701 content verified by NDCs acquetic consultant	Octobor 2014
Report 2761 content verified by NDCs acoustic consultant, making a number of detailed recommendations, and confirming that:	October 2014
The noise levels resulting from operation of the wind	
farm clearly breach the limits set out in Condition 20 at 7 of the 8 properties, in some combinations of wind speed and direction.	
The breach was identified as being as a direct result of the imposition of penalties for tonal noise – making it	
clear that the modifications carried out on the turbines	
by ESB International have not adequately addressed the tonal noise issue.	
Further mitigation measures are therefore necessary to comply with the noise limits.	
The mitigation strategy proposed in the HMP Report would require some turbines to be operated in	
different 'noise modes' or shut down at some times	

The mitigation strategy proposed in the HMP Report would require some turbines to be operated in different 'noise modes', or shut down, at some times and in some combinations of wind speed and direction. Further compliance measurements would be required to be undertaken by ESBI to confirm the success of this mitigation strategy in meeting the requirements of the planning conditions .

Provided that the further compliance measurements demonstrate that noise levels at the agreed locations are compliant with the limits in Condition 20, it would be appropriate for the Council to discharge Condition 21.

It is inevitable that in many conditions turbine noise levels will be operating close to the limits. This is as a result of the original design approach, which recognised that turbines would have to be operated in

reduced-noise modes at all times to comply with the noise limits. The risk of some exceedances of the noise limits, perhaps in relatively infrequently-experienced weather conditions, cannot therefore be ruled out, even if the further surveys confirm compliance.	
Condition 22 provides for investigations to be carried out, at the operator's expense, in the event that noise complaints are received, as long as the Council deems any complaint to be 'reasonable'. This condition provides a remedy in the event that noise levels increase in the future, or if reasonable complaints are made concerning noise occurring in particular weather conditions not specifically identified in the surveys to date.	
Letter sent from NDC Chief Executive to ESBI Managing	11 November
Director, requiring confirmation of timescales within which	2014
additional mitigation measures and associated noise	
monitoring will be undertaken.	
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Response to be received from ESBI by	19 th December
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Response from ESBI received on	10 th December
	2014
ESBI agreed to do further works	10 th December
	2014
ESBI agreed to complete additional works by	23 rd January 2015
NDC received confirmation that these latest works have been completed	20 th January 2015
During Public Meeting, NDC agreed to undertake a detailed	24 th February
check noise monitoring exercise, and seek further explanation	2015
regarding the acceptability of the existing monitoring	
locations in relation to them being deemed as being	
representative of the site as a whole.	

ESBI also undertook to provide a report to NDC following 3 months of the mitigation strategy having been implemented, to evidence that the strategy had been implemented as agreed	
Report received by NDC from ESBI to confirm agreed mitigation strategy implementation.	22 nd June 2015
Statement received by NDC from acoustic consultant, explaining why the existing monitoring locations are able to be deemed as being representative of the site as a whole.	22 nd June 2015
Results of check monitoring exercise undertaken by NDC's acoustic consultant reported to NDC – confirming the validity of ESBI's monitoring.	19 th August 2015
Statement received by NDC from acoustic consultant confirming agreed mitigation strategy has been implemented as previously agreed.	18 th September 2015
Results of noise monitoring (HM Report 2948_R1_EXT4) submitted to NDC.	30 th October 2015
Report RD-1215-NDC01 received by NDC from acoustic consultant - verifying the content of HM Report 2948_R1_EXT4.	9 th December 2015
Communication to all stakeholders advising of Reports HM Report 2948_R1_EXT4 and RD-1215-NDC01, and inviting written representation on content of reports - to be received by NDC on or before January 22 nd 2016.	11 th January 2016
Public Meeting	8 th February 2016