

**From:** DES ADATS-Wind Farm SME  
**Sent:** 27 October 2014 10:33  
**To:** DIO ODC-IPS SG2a  
**Subject:** RE: Hill of Lychrobbie wind turbines

Hi

I can't really see any proposed mitigation in the email, dropping the number of turbines isn't a technical mitigation so the operators would need to decide if one less turbine was acceptable.

Given my experience of observing wind turbines on radar displays I don't believe that it would be possible to 'hide' turbines behind one another. If the turbines were aligned to always face the radar, their rotation was precisely synchronised and the second turbine was within the radar shadow of the first one then it may be that a single return would be observed. In this configuration however it is also likely that the radar shadow would extend much further than for a single turbine.

Best Regards

Wind Farm SME

Telephone:

Email: [DESADATS-Windfarm](mailto:DESADATS-Windfarm)

**From:** DIO ODC-IPS SG2a  
**Sent:** 24 October 2014 15:30  
**To:** DES ADATS-Wind Farm SME  
**Subject:** FW: Hill of Lychrobbie wind turbines

Hi

Please see the following email chain.

Can you let me have your comments or proposed mitigation solution as detailed in his email of 18/09/14?

Thanks and regards

| Safeguarding Officer - Infrastructure Professional Services - Safeguarding  
DIO Operations Development and Coherence  
**Defence**  
**Infrastructure**  
**Organisation**

**Telephone:** | **MOD Telephone:** | **Fax:**  
Email: [DIOODC-IPSSG](mailto:DIOODC-IPSSG)  
Website: [www.gov.uk/mod-safeguarding](http://www.gov.uk/mod-safeguarding)

**From:** DIO ODC-IPS SG2a  
**Sent:** 14 October 2014 16:34  
**To:** Air-1Gp-BM ATM Infra SO3  
**Subject:** RE: Hill of Lychrobbie wind turbines

Hi

Thanks for this.

I've had a word with about the mitigation question. As this is not a detailed mitigation suggestion requiring technical analysis of a report, she does not think it appropriate to take it through the formal mitigation assessment route. Can you comment, or should I ask for his comments first?

25/06/2015

Thanks and regards

Safeguarding Officer - Infrastructure Professional Services - Safeguarding  
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**Defence**  
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**Organisation**

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Website: [www.gov.uk/mod-safeguarding](http://www.gov.uk/mod-safeguarding)

**From:** Air-1Gp-BM ATM Infra SO3 (  
**Sent:** 14 October 2014 11:27  
**To:** DIO ODC-IPS SG2a  
**Subject:** RE: Hill of Lychrobbie wind turbines

I have tried to find the two developments under the name used in CITRIX with no luck, the only Houstry was SE Newlands of Houstry which says refused so it can't be that one and Buolfruch doesn't come up at all. Nevertheless based on their map and assuming that these are constructed then they will form part of the return that we saw at RAF Lossiemouth mentioned in our last response. Furthermore if constructed they would not have formed part of our recent review of all RAF terminal units including RAF Soadeadam which covered only those in planning and either undetermined or mitigated to see if we could remove our objection.

As to the mitigation offered you'll probably need to put that through as she processes all mitigation offered.

Regards

Air 1Gp BM ATM Infra SO3

Civ: | Mil: |

**From:** DIO ODC-IPS SG2a  
**Sent:** 13 October 2014 13:42  
**To:** Air-1Gp-BM ATM Infra SO3  
**Subject:** FW: Hill of Lychrobbie wind turbines

Hi

is chasing a response to his email of 18/09/14. Have you made any progress?

Thanks and regards

Safeguarding Officer - Infrastructure Professional Services - Safeguarding  
DIO Operations Development and Coherence  
**Defence**  
**Infrastructure**  
**Organisation**

**Telephone:** | **MOD Telephone:** | **Fax**  
Email: [DIOODC-IPSSG2a](mailto:DIOODC-IPSSG2a)  
Website: [www.gov.uk/mod-safeguarding](http://www.gov.uk/mod-safeguarding)

**From:** DIO ODC-IPS SG2a  
**Sent:** 19 September 2014 09:54  
**To:** Air-1GP-BM Cap Safeguarding WO | Air-1Gp-BM ATM Infra SO3

25/06/2015

**Subject:** Fw: Hill of Lychrobbie wind turbines

Hi Both,

Please see further correspondence from [redacted] following on from receipt of the Burn of Whilk assessment that [redacted] put together. I am not sure why, if the impact of the Houstry development is of more significance, an assessment of this, rather than the Burn of Whilk development, was not requested in the first instance.

Can you provide any feed back on the impact of the Houstry Wind Farm and address the question of mitigation raised in the third paragraph of [redacted] email.

Thanks and regards

[redacted] Safeguarding Officer - Infrastructure Professional Services - Safeguarding  
DIO Operations Development and Coherence  
**Defence  
Infrastructure  
Organisation**

**Telephone:** [redacted] | **MOD Telephone:** [redacted] | **Fax:** [redacted]  
Email: [DIOODC-IPSSG2](mailto:DIOODC-IPSSG2)  
Website: [www.gov.uk/mod-safeguarding](http://www.gov.uk/mod-safeguarding)

**From:** [redacted]  
**Sent:** 18 September 2014 16:43  
**To:** DIO ODC-IPS SG2a  
**Cc:** [redacted]  
**Subject:** Re: Hill of Lychrobbie wind turbines

Thanks for the response.

I understand that the review of RAF Lossiemouth by 1 Gp Safeguarding SMEs in May 14 identified issues with the operational turbines in the vicinity of the Burn of Whilk development, which is currently under construction. It seems to us that the operational impact of the Houstry / Buolfruich turbines, about 3km north of Lychrobbie, is equally if not more relevant to our project. Given that the SMEs presumably assessed Houstry / Buolfruich during their review of RAF Lossiemouth, we'd appreciate a summary of their conclusions.

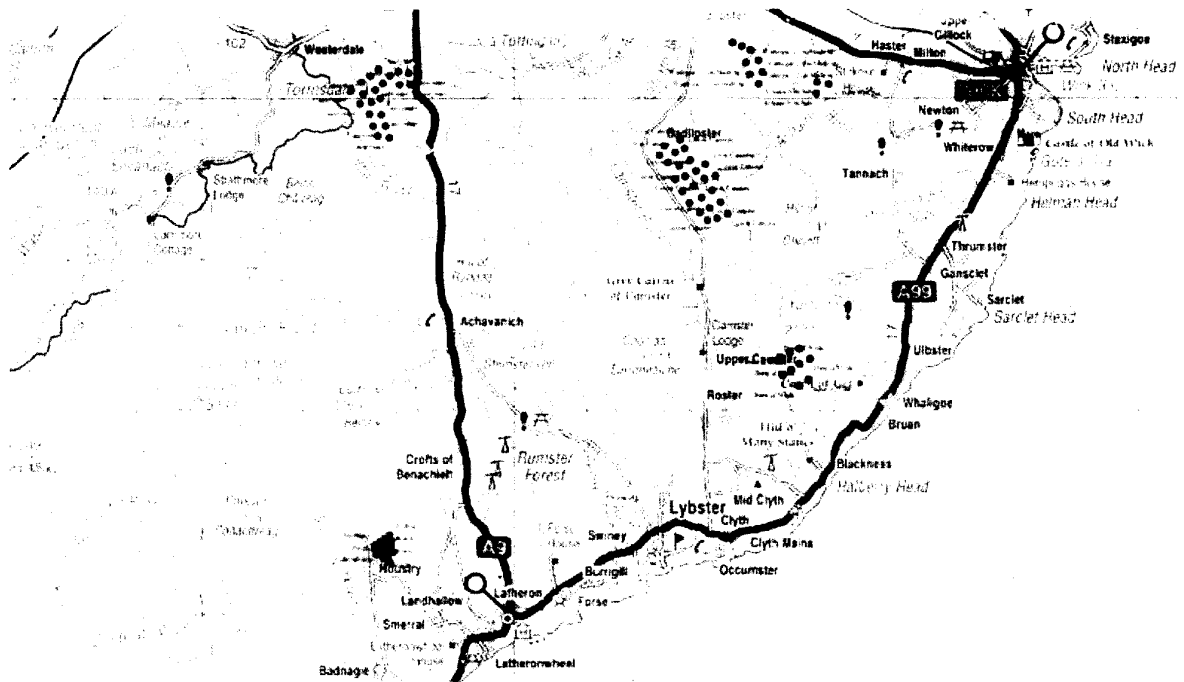
The attached plan shows our understanding of the local situation for reference (Burn of Whilk in red, operational turbines in blue, Hill of Lychrobbie in yellow).

The other follow up question I had was whether mitigating the detectability of the Hill of Lychrobbie project could be possible and might address operational concerns. We may be able to line up the turbines for example so they 'hide' behind each other when viewed from the radar, or drop from 3 to 2 turbines if that made a difference to the returns / interference.

You can tell we're trying to explore all avenues as the community is really relying on this project going ahead in some form. I'd appreciate if you could make sure this is factored into the overall decision on acceptability.

Regards

25/06/2015



Wind Harvest Limited

On 17 Sep 2014, at 11:49, DIO ODC-IPS SG2a

> wrote:

Thank you for your email,

1. The level 3 assessment was undertaken in response to your suggestion that intervening buildings might provide shielding. The buildings have been taken into account.
2. Your email of 11 June 2014 specifically asked for observations on the impact of the Burn of Whilk development and not the Houstry/Buolfruch development.
3. Our objection was raised as a result of an assessment of the operational impact of the Lychrobbie turbines being detectable by the Lossiemouth radar.

Our decision to withdraw our objection to Upper Smerral was based on the fact that in 2010 detectability was deemed to be manageable from an operational perspective. Please see my email of 22/04/14

Kind regards

| Safeguarding Officer - Infrastructure Professional Services - Safeguarding  
 DIO Operations Development and Coherence  
**Defence**  
**Infrastructure**  
**Organisation**

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**From:**  
**Sent:** 15 September 2014 15:20  
**To:** DIO ODC-IPS SG2a  
**Subject:** Re: Hill of Lychrobbie wind turbines

25/06/2015

Thanks for the prompt reply. I've asked [redacted] to review the information you have provided and hope to be able to revert this week with his questions / observations.

I do have some immediate questions from my own reading of the documents:

1. Does the Level 3 assessment take account of buildings / obstacles in the immediate vicinity of the radar, as this was one of the factors raised in the Spaven report.
2. Did the May 14 review of Lossiemouth identify any issues with the Houstry / Buolfruch development to the north of our proposed turbines - this seems more relevant to our proposal than issues with the Burn of Whilk area.
3. Section 5 of the Lychrobbie Level 2 assessment recommends that Ops Staff check whether Lychrobbie is in an area of vital air traffic operations controlled by Lossiemouth. We don't have any information on this from you at this stage, was a formal assessment of this made?

In terms of your question re my statement on the relative detectability of Upper Smerral and Lychrobbie, this was based on the fact that Upper Smerral proposed more turbines than Lychrobbie (4 versus 3), at a higher tip height (84m versus 74m) and a greater altitude (166-187m AOD versus 140-146m AOD). The difference in distance (Upper Smerral is ~1.5km further from the radar) and bearing (~1 degree) seem relatively trivial compared to those larger physical differences. Does this relative detectability have a bearing on your objection to Lychrobbie?

Regards

Wind Harvest Limited

On 12 Sep 2014, at 11:05, DIO ODC-IPS SG2a

> wrote:

Please find attached a redacted version of the Level 2 report for Hill of Lychrobbie. A Level 3 report has been carried out. Our Level 3 reports are carried out using a spreadsheet calculation tool. The tool cannot be release as it includes classified information. The calculation has concluded that the turbines are around 6 dNm above the detection threshold of the Watchman. This is a significant amount.

I also attach an operational impact assessment for the turbines at Burn of Whilk.

You state you know that the Hill of Lychrobbie turbines would be less detectable than the turbines at Upper Smerral would have been. Please provide details of the calculations used to come to this conclusion.

I believe that you have been provided with Level 1 and Level 2 assessments that you requested relating to other developments in the vicinity.

With regard to your request to visit RAF Lossiemouth to discuss operation matters with Air Traffic Control staff there. I can advise that a visit to RAF Lossiemouth is neither relevant or appropriate as the operational staff at the Station do not assess the wind turbine applications. It is the Defence Infrastructure Organisation that administers the wind farm assessment process and we have a team of technical advisors within the MOD including a wind farm team within the RAF who are responsible for carrying out the assessments. If you wish to come to Sutton Coldfield and discuss the matter with them here, that could be arranged. Please provide dates when you would be available.

Kind regards

Safeguarding Officer - Infrastructure Professional Services - Safeguarding  
DIO Operations Development and Coherence  
**Defence  
Infrastructure  
Organisation**

Telephone: [redacted] | MOD Telephone: [redacted] | Fax: [redacted]  
Email: [DIOODC-IPSSG2@mod.gov.uk](mailto:DIOODC-IPSSG2@mod.gov.uk)  
Website: [www.gov.uk/mod-safeguarding](http://www.gov.uk/mod-safeguarding)

25/06/2015

**From:**  
**Sent:** 05 September 2014 09:27  
**To:** DIO ODC-IPS SC2=  
**Cc:**  
**Subject:** Re: Hill of Lychrobbie wind turbines FAO:

Its over a week since I sent the emails below and I haven't had a response. Could you confirm you've received my requests.

Wind Harvest Limited

On 27 Aug 2014, at 18:39, wrote:

One point to add to my previous email - the DIO letter of 28 July states that you have a Level 2 assessment for Hill of Lychrobbie. I would appreciate if you could provide the Level 2 assessment report to us now, followed by the Level 3 assessment when this is completed.

Regards

Wind Harvest Limited

On 27 Aug 2014, at 16:52, wrote:

I refer to my emails of 11th June 2014 and 1st July 2014 requesting a Level 3 assessment for Hill of Lychrobbie. Can you confirm when this will be available? We know that the Hill of Lychrobbie turbines are less visible than Upper Smerral, and hence must be borderline detectable at best, so you can understand why we are keen for DE to undertake the more detailed analysis.

I refer to your email of 1st July stating that you have passed our request for a meeting with Lossiemouth ATC staff to the RAF. Have you had any response? If the Level 3 assessment shows some degree of visibility, we would hope that the associated operational impact could be properly assessed through discussion with Lossiemouth directly.

It would be useful to have the Level 3 results during September as we expect the application to be taken to the October planning committee. The MoD is the only objector to the project, which has significant local and political support. I'm sure you would agree that it would be preferable if the MoD presented a fully considered position to the council on this important community project.

It may also be worth noting that Upper Smerral was refused and not appealed, while the subsequent Newlands of Houstry project on the same site was refused and has just passed its deadline for appeal, so cumulative impacts should not be a factor.

Regards

Wind Harvest Limited

25/06/2015

07824-830600

On 1 Jul 2014, at 17:03,

wrote:

Thanks for the quick response. Clearly, given the discussion we are having we need to see the results of a Level 3 assessment for Lychrobbie, if that has not already been done. We still consider that it is important for us to see the Level 1 Or 2 (as appropriate) assessments which were done for the other projects nearby - Upper Smerral, Lower Rumster, Upper Clyth and Burn of Whilk - and I would be grateful if you could forward those as well. Regards  
On 1 Jul 2014, at 14:02, DIO ODC-IPS SG2a wrote:

My email of 22/04/14 did not state that we had carried out a level 3 assessment of impact of The Hill of Lychrobbie development on the Lossiemouth radar. It simply stated our radar expert had concluded that the buildings would not provide shielding. I have asked him to confirm the assessment method that he used to arrive at this conclusion.

My email also made no mention of level 3 assessments for Upper Smerrall, Lower Rumster, Upper Clyth or Burn of Whilk. Decisions for all of these developments were made on the basis of Level 1 or Level 2 assessment.

We do not hold a copy of the RAF's operational assessment for Burn of Whilk on file.

I will pass your request for a site visit on to the RAF.

Kind regards

Safeguarding Officer - Infrastructure Professional Services - Safeguarding  
DIO Operations Development and Coherence  
**Defence**  
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**Organisation**

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Email: [DIOODC-IPSSG2a](mailto:DIOODC-IPSSG2a)  
Website: [www.gov.uk/mod-safeguarding](http://www.gov.uk/mod-safeguarding)

Please respond to the email below.

Regards

Begin forwarded message:

**From:**  
**Subject: Hill of Lychrobbie wind turbines FAO**  
**Date:** 11 June 2014 17:12:12 GMT+01:00  
**To:** [DIOODC-IPSSG2a](mailto:DIOODC-IPSSG2a)  
**Cc:** ^

Thank you for your response of 22nd April 2014 re our community wind cluster at Hill of Lychrobbie.

Please forward a copy of the ADATS Level 3 assessment of the Lychrobbie turbines so that we can assess your conclusion re lack of shielding.

We also require copies of the other Level 3 assessments for the projects in the vicinity of Lychrobbie (i.e. Upper Smerral (at 84m), Lower Rumster, Upper Clyth, Burn of Whilk) to check consistency with your assessment of Lychrobbie.

Further, we also require a copy of the HQ Air Command operational assessment for Burn of Whilk. I believe Burn of Whilk is currently under construction but if it is in fact operational, is the experience of the radar operators that it is now operationally acceptable?

25/06/2015

Once we have reviewed this information we may need to visit RAF Lossiemouth to discuss operational matters with ATC staff there. I'm sure you wouldn't object to this direct approach, given how useful it would be and the fact that Defence Estates does not have the manpower to undertake such visits itself.

It may also be relevant that the Newlands of Housty project (which replaced the refused Upper Smerral project) has now itself been refused.

Regards

Wind Harvest Limited

T: :

M:

[www.windharvest.co.uk](http://www.windharvest.co.uk)

<20140912 ADATS report redacted.doc><20140912 Burn of Whilk assessment.doc>

25/06/2015