

# Appendix 8.2 Consultation

This page is intentionally blank.

## Appendix 8.2 Consultation

---

**From:** Simon Waddell <[simon.waddell@itpenergised.com](mailto:simon.waddell@itpenergised.com)>

**Sent:** 04 July 2018 15:44

**To:** Taylor Ian@Environmental Health & Trading Standards <[ian.taylor@shetland.gov.uk](mailto:ian.taylor@shetland.gov.uk)>

**Cc:** Andrew Ramand <[andrew.ramand@itpenergised.com](mailto:andrew.ramand@itpenergised.com)>

**Subject:** Noise assessment of proposed Yell Wind Farm - scope and approach

Good afternoon Ian,

Thank you for your time earlier. As discussed, ITPenergised will be undertaking the noise assessment of the proposed Yell Wind Farm in the north-west of the island as part of the EIA for the project.

Our assessment will be undertaken in accordance with the following guidance:

- PAN1/2011 & accompanying TAN;
- BS5228 – for derivation of construction phase target noise levels;
- BS4142 – for derivation of operations phase target noise levels for non-turbine plant (transformers etc);
- ETSU-R-97 and the Institute of Acoustics' Good Practice Guide – to inform baseline survey method and approach and for the evaluation of wind turbine noise & derivation of noise limits; and
- BS7445 – for the specification of appropriate noise monitoring equipment and recording of observations during monitoring.

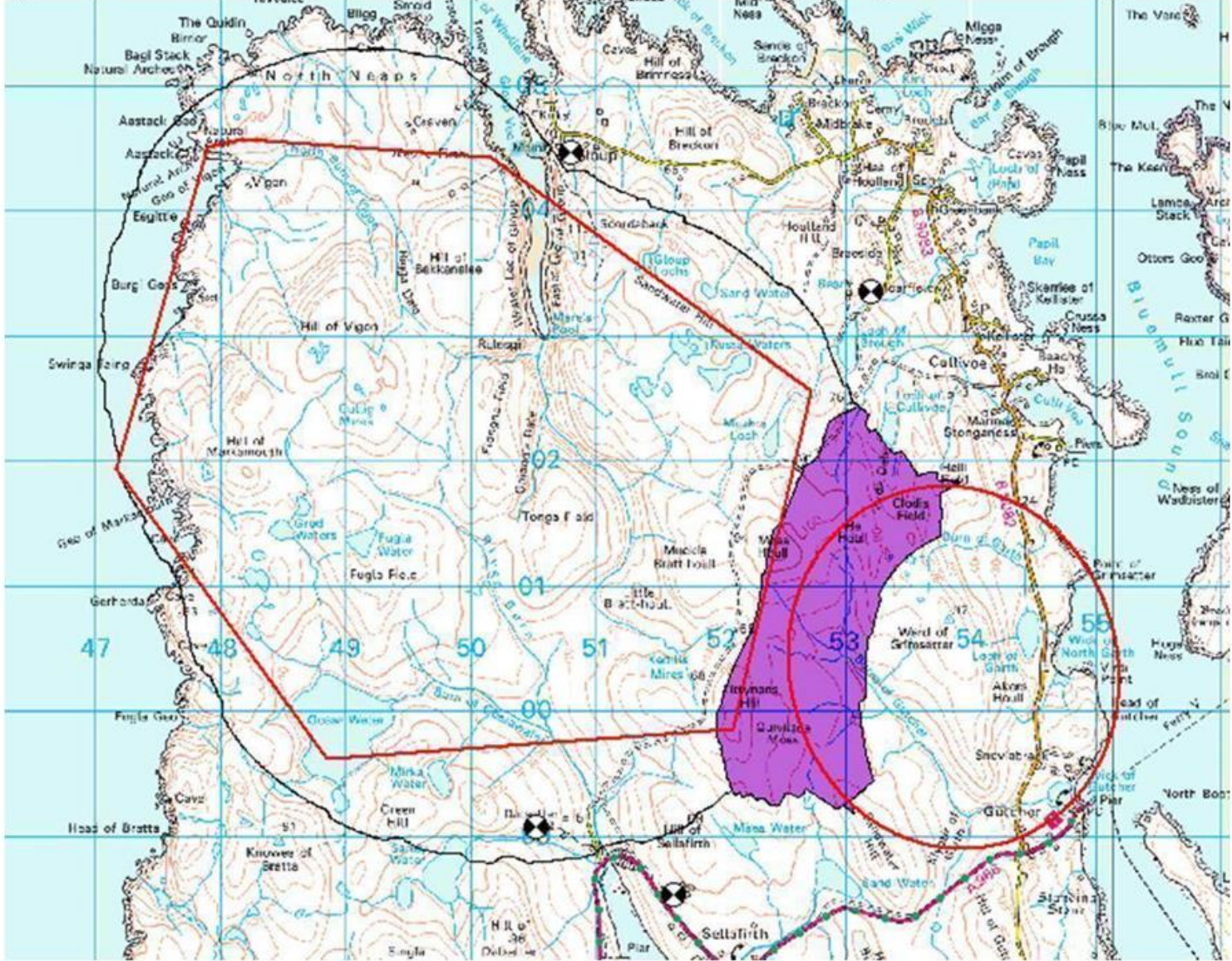
We note that the proposed turbines have a greater hub height than typical onshore turbines. To determine our study area we have run preliminary noise contours, using the broad-band source noise level for the Siemens Gamesa SG4.5 145, which is one of the potential candidate turbines. Figure 1 shows the 35 dB contour for the proposed Yell Wind Farm alone, Figure 2 shows the cumulative 35 dB contour considering Garth Wind Farm also. *Please let me know if there are any other wind farms you would wish to see considered in our evaluation of cumulative noise effects.*

Figure 1 – 35 dB contour (in blue) for operation of Yell Wind Farm alone





Figure 2 – Cumulative 35 dB contour for Yell Wind Farm and Garth Wind Farm, with shaded area showing where contribution of each wind farms is within 10 dB of the other.



I attach a .kmz file showing our 3 proposed monitoring locations for the evaluation of wind turbine noise; NMP1, NMP2 and NMP3. An additional location, NMP4, has been included as a short-term monitoring location for the evaluation of noise from unloading turbine components at Ulsta. Please confirm you have received the file OK and provide any comment on our proposed locations. As yet we have not contacted any residents to request permission to install monitoring equipment, so the exact monitoring locations may vary.

With reference to Figure 1 and Figure 2, the rationale for selection of the proposed monitoring locations is provided below:

NMP1 – representative property within Gloup, ideally sited in a fairly sheltered location away from the coast to minimise the influence of noise from waves.  
NMP2 – representative of the closest properties to proposed development to the south-west of Cullivoe  
NMP3 – representative of properties at Dalsetter.

With reference to Figure 2, there are no properties in the shaded area where cumulative noise effects occur between Yell and Garth wind farms.

*As discussed, we propose to set up on site on or around the 16<sup>th</sup> July (likely to be 17<sup>th</sup> July), and you would be most welcome to meet with us to confirm you are satisfied with the micro-siting of the noise monitoring equipment at the representative properties. We will be in touch to confirm the exact time of our visit once we have travel booked.*

During the survey we will monitor rainfall and wind speed and direction. The wind speed and direction will be measured using a SODAR device at a location to the north of Dalsetter. Rainfall will be measured using a tipping-bucket rain gauge sited either at one of the noise monitoring locations or adjacent to the SODAR device.

Operational noise levels will be predicted in using noise modelling software Cadna-A, in accordance with the guidance provided in the IoA GPG and in ETSU-R-97. Operational noise effects would then be evaluated accordingly against noise limits derived in accordance with ETSU from the measured background levels.

I would be grateful if you could confirm by response whether you are satisfied with our proposed scope and approach, ideally by Wednesday 11<sup>th</sup> July.

Thanks and regards,

Simon

Simon Waddell | Senior Noise Consultant | ITPENERGISED  
Office: +44 (0) 131 557 8325 | Mobile: +44 (0) 7884 278145  
7 Dundas Street, Edinburgh EH3 6QG  
[www.itpenergised.com](http://www.itpenergised.com)

**From:** [ian.taylor@shetland.gov.uk](mailto:ian.taylor@shetland.gov.uk) [<mailto:ian.taylor@shetland.gov.uk>]  
**Sent:** 06 July 2018 15:07  
**To:** Simon Waddell <[Simon.Waddell@itpenergised.com](mailto:Simon.Waddell@itpenergised.com)>  
**Subject:** RE: Noise assessment of proposed Yell Wind Farm - scope and approach

Good afternoon Simon

Thanks for the email as per our conversation, I'll have a chance to look over the proposal and pass comment back by Wednesday next week, I am on leave Monday Tuesday.

If you need to discuss I'll be in the office till 16:30 today.

My regards

Ian

Ian Taylor  
Assistant Environmental Health Officer  
Shetland Islands Council  
Environmental Health & Trading Standards Dept.  
Old Anderson High School  
Lovers Loan  
ZE1 0BA

Tel: 01595 744 801  
Mob: 07919 235 038

**From:** Simon Waddell <[simon.waddell@itpenergised.com](mailto:simon.waddell@itpenergised.com)>  
**Sent:** 05 December 2018 08:54  
**To:** Taylor Ian@Environmental Health & Trading Standards <[ian.taylor@shetland.gov.uk](mailto:ian.taylor@shetland.gov.uk)>  
**Cc:** Rebecca Todd <[rebecca.todd@itpenergised.com](mailto:rebecca.todd@itpenergised.com)>  
**Subject:** RE: Noise assessment of proposed Yell Wind Farm - scope and approach

Good morning Ian,

I was sorry to hear you had taken ill. I hope you are now recovered/on the mend, and would be grateful if you could let me know if you are back at work, as we will be progressing the Yell Wind Farm noise assessment in early January, and I would like to further discuss our approach and our baseline findings with you.

Best regards,

Simon

**Simon Waddell | Principal Noise Consultant** | ITPENergised  
Office: +44 (0) 131 557 6325 | Mobile: +44 (0) 7884 278145  
7 Dundas Street, Edinburgh EH3 6QG  
[www.itpenergised.com](http://www.itpenergised.com)

ITPENergised incorporates Energised Environments Limited & ITPE Ltd.

**From:** [ian.taylor@shetland.gov.uk](mailto:ian.taylor@shetland.gov.uk) [<mailto:ian.taylor@shetland.gov.uk>]  
**Sent:** 10 December 2018 09:34  
**To:** Simon Waddell <[simon.waddell@itpenergised.com](mailto:simon.waddell@itpenergised.com)>  
**Subject:** RE: Noise assessment of proposed Yell Wind Farm - scope and approach

Good morning Simon

Thank you for your kind words, I'm happy to report that I'm now back at work full time and am more than happy to catch up with you to discuss the noise assessment and findings with you. Please let me know when you would like to chat and I'll make time available in my diary.

My kind regards

Ian

Ian Taylor  
Assistant Environmental Health Officer  
Shetland Islands Council  
Environmental Health & Trading Standards Dept.  
Old Anderson High School  
Lovers Loan  
ZE1 0BA

Tel: 01595 744 801  
Mob: 07919 235 038





Wind speed, m/s		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>Sellafirth</b>	<b>daytime background, dBLA90</b>	22.1	23.4	25.2	27.2	29.3	31.4	33.4	35.1	36.5	37.4	37.6	37.2	35.8	33.5
	<b>Background +5dB</b>	27.1	28.4	30.2	32.2	34.3	36.4	38.4	40.1	41.5	42.4	42.6	42.2	40.8	38.5
	<b>Noise limit</b>	35.0	35.0	35.0	35.0	35.0	36.4	38.4	40.1	41.5	42.4	42.6	42.6	42.6	42.6
	<b>Night-time background, dBLA90</b>	19.3	17.7	18.0	19.8	22.4	25.6	29.1	32.3	35.2	37.4	38.8	39.3	38.8	37.1
	<b>Background +5dB</b>	24.3	22.7	23.0	24.8	27.4	30.6	34.1	37.3	40.2	42.4	43.8	44.3	43.8	42.1
	<b>Noise limit</b>	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.8	44.3	44.3
<b>Hill of Breckon</b>	<b>daytime background, dBLA90</b>	23.4	21.1	20.2	20.7	22.2	24.5	27.4	30.6	33.9	37.0	39.7	41.7	42.9	42.9
	<b>Background +5dB</b>	28.4	26.1	25.2	25.7	27.2	29.5	32.4	35.6	38.9	42.0	44.7	46.7	47.9	47.9
	<b>Noise limit</b>	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.6	38.9	42.0	44.7	46.7	47.9	47.9
	<b>Night-time background, dBLA90</b>	18.8	19.1	19.8	20.8	22.0	23.4	24.9	26.6	28.4	30.2	32.1	33.9	35.6	37.3
	<b>Background +5dB</b>	23.8	24.1	24.8	25.8	27.0	28.4	29.9	31.6	33.4	35.2	37.1	38.9	40.6	42.3
	<b>Noise limit</b>	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
<b>Gloup</b>	<b>daytime background, dBLA90</b>	13.0	18.5	22.4	25.1	26.9	28.0	28.9	29.8	31.2	33.2	36.3	40.8	47.0	55.3
	<b>Background +5dB</b>	18.0	23.5	27.4	30.1	31.9	33.0	33.9	34.8	36.2	38.2	41.3	45.8	52.0	60.3
	<b>Noise limit</b>	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	36.2	38.2	41.3	45.8	52.0	60.3
	<b>Night-time background, dBLA90</b>	22.1	22.1	22.4	22.8	23.4	24.2	25.0	26.0	26.9	28.0	29.0	30.0	31.0	31.9
	<b>Background +5dB</b>	27.1	27.1	27.4	27.8	28.4	29.2	30.0	31.0	31.9	33.0	34.0	35.0	36.0	36.9
	<b>Noise limit</b>	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
<b>Cullivoe</b>	<b>daytime background, dBLA90</b>	15.3	18.3	20.9	23.3	25.4	27.4	29.4	31.5	33.8	36.3	39.3	42.7	46.7	51.5
	<b>Background +5dB</b>	20.3	23.3	25.9	28.3	30.4	32.4	34.4	36.5	38.8	41.3	44.3	47.7	51.7	56.5
	<b>Noise limit</b>	35.0	35.0	35.0	35.0	35.0	35.0	35.0	36.5	38.8	41.3	44.3	47.7	51.7	56.5
	<b>Night-time background, dBLA90</b>	24.4	21.6	20.1	19.7	20.3	21.7	23.6	26.0	28.7	31.5	34.2	36.7	38.7	40.1
	<b>Background +5dB</b>	29.4	26.6	25.1	24.7	25.3	26.7	28.6	31.0	33.7	36.5	39.2	41.7	43.7	45.1
	<b>Noise limit</b>	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.7	45.1

**From:** [ian.taylor@shetland.gov.uk](mailto:ian.taylor@shetland.gov.uk) [mailto:[ian.taylor@shetland.gov.uk](mailto:ian.taylor@shetland.gov.uk)]  
**Sent:** 13 December 2018 14:36  
**To:** Simon Waddell <[simon.waddell@tpenergised.com](mailto:simon.waddell@tpenergised.com)>  
**Subject:** RE: Noise assessment of proposed Yell Wind Farm - scope and approach

Good afternoon Simon

As discussed please find below the link to the Planning portal for the Garth wind farm.

My kind regards

Ian

2014/104/V/CON | Renewal of planning permission 2009/151/PCD - To erect 5no 850 kW (approx) wind turbines (hub height 44 metres, blade height 70 metres) access track, sub station building, temporary construction compound and underground cabling, by varying condition 2 of previous permission | Garth Yell Shetland ZE2 9DF

<https://pa.shetland.gov.uk/online-applications/applicationDetails.do?keyVal=N3RA2DOA01E00&activeTab=summary>

Ian Taylor  
Assistant Environmental Health Officer  
Shetland Islands Council  
Environmental Health & Trading Standards Dept.  
Old Anderson High School  
Lovers Loan  
ZE1 0BA

Many thanks Ian,

Having reviewed the decision notice, and searched both the decision notice and the related planning application from 2009 (of which the 2014 application was a renewal) I can't see any noise conditions. Please could you advise and/or provide the noise limits applicable to Garth wind farm?

I will search out the planning details for other potentially cumulative single turbine developments in the new year and drop you an email such that we can agree which require consideration.

Have a merry Xmas and I'll be in touch in the new year.

Best regards,

Simon

**From:** Simon Waddell <[simon.waddell@itpenergised.com](mailto:simon.waddell@itpenergised.com)>

**Sent:** 17 January 2019 13:28

**To:** Taylor Ian@Environmental Health & Trading Standards <[ian.taylor@shetland.gov.uk](mailto:ian.taylor@shetland.gov.uk)>

**Cc:** Jonas Beaugas <[jonas.beaugas@itpenergised.com](mailto:jonas.beaugas@itpenergised.com)>; Gregor Massie <[Gregor.Massie@itpenergised.com](mailto:Gregor.Massie@itpenergised.com)>; Stuart McGowan <[stuart.mcgowan@itpenergised.com](mailto:stuart.mcgowan@itpenergised.com)>; Rebecca Todd <[rebecca.todd@itpenergised.com](mailto:rebecca.todd@itpenergised.com)>

**Subject:** Noise Assessment of Yell Wind Farm - cumulative assessment & adoption of noise limits

Good afternoon Ian,

Further to our previous correspondence, we are now at the detailed modelling stage for Yell, and therefore require to agree which cumulative developments need to be considered, and which can be scoped out.

#### Cumulative wind farms

- The only large-scale cumulative development we have identified is Garth Wind Farm.
- We have reviewed the available information on the planning portal and note that the noise assessment in the Environmental Statement has been completed for a Vestas V52 candidate turbine, and the installed model is an Enercon E44.
- Grid coordinates for the turbines are provided on the planning portal, and the datasheet for the installed Enercon turbines is provided, including octave band noise data for a range of wind speeds.
- The noise limits derived from baseline data for Garth Wind Farm are not reported in tabular form in the Environmental Statement, rather, derived noise limits are provided graphically in the appendix to the ES.
- Noise limits have been derived based on the higher ETSU noise limit of "40 dBL<sub>A90</sub>, or background +5 dB, whichever is the higher" during the daytime period, and "43 dBL<sub>A90</sub>, or background +5 dB, whichever is the higher" during the night-time period.
- The receptor "Laurenlea House" appears to be financially involved with the Garth wind farm, with noise limits of "45 dB or background +5dB".

#### Other cumulative wind turbines

We have also identified numerous single-turbines in the planning portal, and list these below, along with justification for whether they have been "scoped in" or "scoped out" of our assessment:

Name	Planning reference	Status / included in assessment?
Tulac	2014/254/PPF	Operational – <b>included</b>
Uphouse	2014/022/PPF	Operational – <b>included</b>
SW Cullivoe Hall	2006/392/PCD	Constructed, non-operational at time of baseline survey. Non-operational Proven turbine to be replaced with new Kingspan turbine – <b>included</b>
Niaroo	2015/346/PPF	Consented – non-operational at time of baseline survey – <b>included</b>
Dalsetter 3Ts	2014/275/SCR	Live planning application, not determined – <b>included</b>
Innhouse	2013/363/PPF	Consented - non-operational at time of baseline survey – <b>included</b>
Nampara	2015/356/PPF	Refused at planning - <b>excluded</b>
Kirkhoull	2015/343/PPF	Refused at planning - <b>excluded</b>
Nampara	2015/356/PPF	Refused at planning - <b>excluded</b>

No grid coordinates have been provided for the turbines at Tulac, Uphouse, Innhouse or South-west of Cullivoe Hall via the planning portal.

**Evaluation of cumulative effects**

- The IoA Good Practice Guide recommends that, where possible, cumulative effects are considered by reference to consented noise limits.
- Given that the single turbines all appear to be consented to the 35 dB "simplified ETSU" noise limit, we propose to instead consider these through inclusion in a cumulative prediction model, using the hub heights and noise source information reported on the planning portal, making appropriate assumptions where there are gaps in the data provided.
- We propose to evaluate cumulative noise effects with the operational Garth wind farm using the consented noise limits.

**Further information required**

- **Please provide grid coordinates for the single turbines** at Tulac, Uphouse, Innhouse and South-west of Cullivoe Hall for use in our prediction model. **Alternatively, please confirm you are happy for us to consider an approximate turbine location** based on information provided on the planning portal.
- For the avoidance of doubt, **please confirm that Garth wind farm is consented to the derived noise limits provided in its Environmental Statement (40 dB upper ETSU limit)** and, if possible, provide tabulated values for the noise limits (if these are not available we will obtain these from the graphs in the Garth ES, however, we note that there are potential errors in taking this approach)

Given the 40 dB<sub>L<sub>90</sub></sub> upper ETSU noise limit adopted for Garth wind farm, we propose to adopt the same Upper ETSU limit for Yell Wind Farm, given its substantially higher generating capacity, and the small numbers of dwellings likely to be affected. **For the avoidance of doubt, please confirm that you accept this approach.**

We are under pressure to complete our assessment by the end of January, therefore a swift response from you would be greatly appreciated. If you wish to discuss any of the above please do not hesitate to call me on my mobile (number below), although please note that I am out of office tomorrow and Monday.

Many thanks in advance,

Simon

**Simon Waddell | Principal Noise Consultant |** ITPEnergised  
Office: +44 (0) 131 557 8325 | Mobile: +44 (0) 7684 278145  
7 Dundas Street, Edinburgh EH3 6QG  
[www.itpennergised.com](http://www.itpennergised.com)

Good afternoon Simon

With reference to our conversation yesterday I can provide you with the following information pertaining to the location of the three turbines;

Tulac	2014/254/PPF	E 452,421 N 1,197,632
Uphouse	2014/022/PPF	E 451,725 N 1,198,529
SW Cullivoe Hall	2006/392/PCD	E 453,967 N 1,203,022

With regards the permitted limits for the Garth wind farm I have mailed the planning office who dealt with the application to establish what was granted in relation to the ETSU noise limits, she is in tomorrow so hopefully this can be established then. Further to this I have recently dealt with a proposal to discharge a planning condition relating to a large turbine, see details below;

*018/370/OBL | Proposed Discharge of Planning Obligation dated 7th and 13th October 2015 relating to planning permissions 2010/210/PCD and 2015/020/PPF | Turbines 1 & 2 Hillhead Ollaberry Shetland ZE2 9RT*

The applicant assumes the 40dB daytime limit applies to the development, see point 2.07 of the noise assessment. Have a look over the details, I would surmise that similar developments within the authorities area should have the same limits applied fairly across the board.

I'll drop you a line once I have spoken to planning about Garth, hopefully the above information can help you get your outstanding issues addressed. Please don't hesitate to call or mail if you need any further information.

My regards

Ian

---

**From:** Simon Waddell  
**Sent:** 24 January 2019 14:20  
**To:** [ian.taylor@shetland.gov.uk](mailto:ian.taylor@shetland.gov.uk)  
**Cc:** Gregor Massie <[Gregor.Massie@itpenergised.com](mailto:Gregor.Massie@itpenergised.com)>  
**Subject:** RE: Noise Assessment of Yell Wind Farm - cumulative assessment & adoption of noise limits

Many thanks Ian, much appreciated.

I'm out of the office tomorrow, but please let me know the planner's response and CC my colleague, Gregor.

Best regards,

Simon

---

**From:** Simon Waddell <[simon.waddell@itpenergised.com](mailto:simon.waddell@itpenergised.com)>  
**Sent:** 29 January 2019 17:07  
**To:** Taylor Ian@Environmental Health & Trading Standards <[ian.taylor@shetland.gov.uk](mailto:ian.taylor@shetland.gov.uk)>  
**Cc:** Gregor Massie <[Gregor.Massie@itpenergised.com](mailto:Gregor.Massie@itpenergised.com)>  
**Subject:** RE: Noise Assessment of Yell Wind Farm - cumulative assessment & adoption of noise limits

Hi Ian,

A gentle nudge – for the avoidance of doubt, would you mind dropping me an email just to confirm you're happy with the proposed scope and approach of our noise assessment, as detailed in our previous correspondence?

Any word from the planner on the consented noise limits for Garth?

Best regards,  
Simon

**Simon Waddell | Principal Noise Consultant** | ITP Energised  
Office: +44 (0) 131 557 8325 | Mobile: +44 (0) 7884 278145  
7 Dundas Street, Edinburgh EH3 6QG  
[www.itpenergised.com](http://www.itpenergised.com)

---

ITP Energised incorporates Energised Environments Limited & ITPE Ltd.



**From:** [ian.taylor@shetland.gov.uk](mailto:ian.taylor@shetland.gov.uk) [mailto:[ian.taylor@shetland.gov.uk](mailto:ian.taylor@shetland.gov.uk)]  
**Sent:** 31 January 2019 09:33  
**To:** Simon Waddell <[simon.waddell@tpenergised.com](mailto:simon.waddell@tpenergised.com)>  
**Subject:** RE: Noise Assessment of Yell Wind Farm - cumulative assessment & adoption of noise limits

Good morning Simon

Sorry in the delay of my reply, I've been waiting for a reply from planning and yesterday was a public holiday for the authority.

With regards to the scope and approach of your noise assessment I can confirm that it is acceptable. With reference to any planning limits placed upon the Garth windfarm, planning ref 2009/151/PCD, please see response received below from Janet Barclay, planning officer.

If you need to discuss any of the information further please do not hesitate to contact me.

My regards

Ian

*Ian*  
*There were no planning conditions on the 2009 permission that set noise limits for Garth.*  
*Janet*

*From: Taylor Ian@Environmental Health & Trading Standards*  
*Sent: 24 January 2019 11:23*  
*To: Barclay Janet@Development Management <[Janet.BarclaySmith@shetland.gov.uk](mailto:Janet.BarclaySmith@shetland.gov.uk)>*  
*Subject: Noise limits for 2009/151/PCD*

*Hi Janet*

*I was wondering if the council set any noise limits for the turbines at Garth, Yell as detailed in application 2009/151/PCD. I understand there was only 3 receptors identified but I could not see if we imposed the lower or higher ETSU-R-97 limits.*

*If your able to help I would be grateful*

*My kind regards*

*Ian*

*Ian Taylor*  
*Assistant Environmental Health Officer*  
*Shetland Islands Council*  
*Environmental Health & Trading Standards Dept.*  
*Old Anderson High School*  
*Lovers Loan*

This page is intentionally blank.