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## OBJECTION TO MID HILL WIND FARM

TO: Energy Consents Unit, Scottish ministers, Scottish Borders Council  
CASE #: ECU00005192 – Mid Hill Wind Farm  
APPLICANT: Invenergy Development UK Ltd  
FROM: Borthwickwater Landscape Conservation Group (BLCG)  
ADDRESS: c/o Andrew Steele, BLCG Secretary, Woodburn Lodge, Hawick TD9 7PJ  
EMAIL: [info@blcg.org](mailto:info@blcg.org)  
SUBJECT: Objection to Invenergy’s Application for a proposed wind farm development at Mid Hill

## INTRODUCTION

The Borthwickwater Landscape Conservation Group (BLCG) is a duly constituted local community group formed in 2024 to represent the views and concerns of the residents and businesses of the Borthwickwater Valley in relation to the proposed Mid Hill Wind Farm. BLCG’s Co-Chairs are Marco Compagnoni (owner of Hoscote, near Deanburnhaugh) and Christopher Houston (owner of Woodburn Dipper, near Chisholme). BLCG’s Secretary is Andrew Steele (owner of Woodburn Lodge, near Chisholme). The organisation’s website is [www.blcg.org](http://www.blcg.org). There are 21 active members and 20+ active supporters. All are residents and/or business owners within the BLCG geographic area.

BLCG’s geographic area begins at the junction of the B711 with the A7, proceeds west through Roberton village along the B711, takes in the triangle of minor roads north of the B711 which encompass Harden, Borthwickshiels and Blawearie, continues southward from the B711 at Roberton village onto the minor road to Craik Forest, and eastward from that minor road onto a further minor road past Chisholme Institute and eastward back towards the A7. This BLCG geographic area comprises approximately 100 private properties and more than 200 persons. Many of these are farming businesses. A number of local residents have holiday cottage businesses.

In its Volume 1 Non-Technical Summary, Invenergy identifies areas of Significant Major visual effect within 6.2km of the proposed development site. The following of these lie within the BLCG geographic area as just described:

- The B711 from its junction with the A7 to Roberton and on to the Ettrick Valley
- The Borthwick Valley minor road running from Roberton to Craik
- From Harden Burn up to Blawearie on the Harden and Borthwickshiels minor roads running between Roberton and Ashkirk (approximately 1.7km duration within 6.3km of the site)
- Between Meadshaw and Chisholme and north of Chisholme woods (duration approximately 6.1km plus 1.7km, within 3km of the proposed turbines)
- From Craik to Meadshaw (duration approximately 3.8km, within approximately 6.2km of the site)
- Above Highchesters for approximately 800m duration, within 5.6km of the site)

As the above list starkly illustrates, BLCG’s views as expressed in its Objection should be accorded major weight in the deliberations of the ECU, the Scottish Ministers, and the Scottish Borders Council (SBC). In fact, as a Consultee named in Invenergy’s Application materials, BLCG should be accorded the same status as other Consultees (Ministry of Defence etc.) and this Objection should be more correctly styled and treated as a “Consultation Response” rather than a “Public Representation”. BLCG hereby requests that this be done.

From the Table of Contents immediately below, navigation can be made to a particular section or chapter of BLCG’s Objection by highlighting the text and holding down a laptop “Ctrl” button while simultaneously clicking the ‘mouse’ button.

In terms of the ordering of BLCG’s Objection, the Executive Summary discusses BLCG’s particular areas / topics of objection, presenting them in a weighted order of importance. In the body of BLCG’s Objection, the areas / topics of specific objection are presented in the order in which Invenergy’s 263 application documents appear on the ECU website when these are put into alphabetical order by clicking on the “Description” column:

<https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005192&T=5>

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## EXECUTIVE SUMMARY

BLCG comprehensively opposes the entirety of Invenergy's Application and requests that permission for the proposed development of a wind farm at Mid Hill be denied. Five (5) of BLCG's objections are substantive. These areas of substantive legal and policy error in Invenergy's Application also contain methodological errors, insufficiencies, and substantial gaps and inaccuracies. But, even if these were to be "cured" by amendments to the Application, the substantive impossibilities remain. Six (6) of BLCG's objections are procedural / methodological, but the flaws, errors, omissions, incorrect and impermissible assumptions in these areas are so great that they highlight the Applicant's bias and call into question the reliability of virtually all of the statements and conclusions Invenergy claims to draw. Invenergy's Application cannot be allowed.

## SUBSTANTIVE + METHODOLOGICAL GROUNDS

### 1. Chapter 12 Aviation Radar and Defence

The proposed site for Invenergy's development of a wind farm at Mid Hill violates the current 50km exclusion zone surrounding the Eskdalemuir Seismic Array. Now that the Ministry of Defence (MoD) has filed a formal objection to Invenergy's Application (the proposed site lies 15.1-17km from the Array), there is no other decision that can be made other than denial.

If the Scottish Government were to try and find a way around this, it would mean pre-empting national security policy at a time of heightened international instability and nuclear security concerns. It would also open any decision favourable to Invenergy to the material risk of being overturned on appeal / judicial review. If the Scottish Government were to decide to attempt this, at the very least Invenergy's Application would need to be held in abeyance until a formally adopted, revised seismic safeguarding and headroom allocation policy has been demonstrated to work consistently and transparently and then accepted by the MoD's own independent scientists. Until then, all planning decisions must be based on existing policy not on anticipated reforms. Under existing policy, Invenergy's Application must be denied.

### 2. Chapter 08 Cultural Heritage and Archaeology

Invenergy's cultural heritage and archaeology assessments systematically under-characterise the historic environment which lies within and surrounding the proposed development site boundary. They fragment a coherent historic upland landscape into isolated assets, assets whose significance derives equally if not more from their continuity, movement, intervisibility, and experiential setting as they do from each asset in its own right. Even if Invenergy were to be required to re-conduct its (currently) highly inaccurate and incomplete assessments, there would still be no cure for the irreversible damage that would be caused to the interconnectivity and intervisibility of protected historic and archaeological sites. The legally required balancing of harms (devastating local impacts) and benefits (pursuing national net zero targets) does not allow this. Invenergy's Application must be denied.

### 3. Chapter 07 Ecology

In its chapter on Ecology, Invenergy recognises and addresses the host of protected and endangered species – badgers, bats, fish, otters etc. – whose lives and habitats exist within and surrounding the proposed development site. However, Invenergy's weighting of the risks of loss of habitat and loss of legally-protected, at-risk populations is so flawed that it amounts to substantive failure. Even if Invenergy were ordered to re-assess these populations fully and correctly, it would still be the case that the proposed development would cause irrevocable damage to the protected and endangered species in question and that their survival would not be protected under any circumstances. The law governing protected and endangered species is binding. Re-assessment is no cure. The Application must be denied.

### 4. Chapter 06 Ornithology

The ornithological assessment submitted by Invenergy relies on what are acknowledged to be incomplete survey results then fails to carry this uncertainty forward into its assessments. Invenergy minimises confirmed risks identified by its own baseline evidence. It misapplies guidance to exclude relevant receptors. It uses inappropriate spatial scaling to dilute impacts. These failings mean that Invenergy has not provided a sound basis for being allowed to proceed with its proposed development. Mitigation and the imposition of *ex post facto* conditions do not solve the problems. Unacceptable risks are, by Invenergy's own admission, confirmed. Given this, Invenergy's Application cannot proceed.

### 5. Chapter 09 Traffic and Transport

In its chapter on traffic and transport, Invenergy admits that the proposed project is not feasible on traffic route grounds. Non-feasibility demands an outright denial of permission to proceed further. This is a matter of legal failure.

## METHODOLOGICAL GROUNDS

### 1. Chapter 02 Description of the Proposed Development (Anemometry Mast)

At the time of Invenergy's pursuit - in the latter half of 2025 - of permission for a temporary anemometry mast which it wants to erect within the environs of Broadlee Loch, there was no mention of this mast ever becoming permanent. Scottish Borders Council (SBC) granted no permission for a permanent mast. Now, in Invenergy's Application, a permanent mast is proposed though no detail is provided. There is now confusion and contradiction between the temporary (5-year) mast at Broadlee Loch approved on SBC appeal and the appearance in Invenergy's Application of a proposed permanent mast -

about whose location no information is given. But confusion and contradiction are not the worst of it. The worst is that Invenergy's attempt to introduce a permanent mast – when it asserted last year before the SBC that there would be only a temporary mast – is application creep by the back door and cannot be allowed to proceed.

#### 2. Chapter 05 Landscape and Visual

Across the whole of Invenergy's Chapter 5 and accompanying appendices, Invenergy does not comply with applicable laws, policies or guidance, rendering its entire development proposal insufficient. Once again, even if Invenergy were ordered to re-assess and re-submit on LVIA and RVAA grounds, the inadequacies shown so patently here argue for outright denial of the Application.

#### 3. Pre-Application Consultation (PAC) Report

Invenergy's PAC Report over-claims, under-reports, misrepresents and is substantially inaccurate. Even if Invenergy were to re-consult with the local community on the significant changes in the proposed development when it reduced from 27 to 13 turbines, its failure to follow due process the first time around suggests that violation of due process would simply occur again, and this would border on bad faith.

#### 4. Chapter 11 Geology Hydrology Hydrogeology and Peat

Invenergy's Chapter 11 and accompanying appendices provide no sound evidential basis upon which a competent authority could lawfully conclude that significant adverse effects to groundwater, private water supplies, peat and downstream water quality are unlikely. Instead, Invenergy systematically places reliance on embedded mitigation, presumed "good practice" and future management plans to discount adverse effects and impacts. This impermissibly defers critical evaluation to post-consent controls, obscures residual risk and uncertainty, and precludes a proper determination at Application stage as required by law, policy, and guidance. In addition, the absence of a peat and peatland assessment along the proposed access route(s) in either this chapter or in Chapter 9 is a material omission and prevents lawful determination of Invenergy's Application.

#### 5. Chapter 10 Noise and Vibration

Invenergy's Chapter 10 on noise and vibration is replete with policy failures. This materially undermines any weight that otherwise might be given to Invenergy's assessment of impacts. Invenergy has not met its burden of proof. It only makes assertions of compliance rather than demonstrations of compliance and as such the Application cannot be allowed to proceed.

#### 6. Economic Impact Assessment (Tourism)

Invenergy's Economic Impact Assessment (undertaken by Biggar Economics on Invenergy's behalf) talks only of tourism employment, completely omitting any discussion of the negative economic impacts on numerous private holiday cottage businesses near to the proposed development site. This omission means that a correct weighing of local harm versus national benefit cannot be properly undertaken. Yet this is required to be undertaken. Major, negative impacts can be readily foreseen and, once addressed, inevitably lead to refusal of this Application.

### **MID HILL WIND FARM ECONOMIC IMPACT ASSESSMENT – TOURISM**

#### INTRODUCTION

BLCG hereby objects to the Mid Hill Economic Impact Assessment (MHEIA) – undertaken by Biggar Economics on Invenergy's behalf – which Invenergy has filed as part of its Application. The grounds for BLCG's objection are that the Tourism section is incomplete, that it addresses only tourism-related employment, and that it incorrectly and misleadingly ignores all other issues. The worst omission is failing to address the revenue loss which will occur for holiday accommodation providers in the area. This omission must be rectified and the issue included in the ECU's upcoming deliberations.

But once this is done, as shown below, the financial impact of the proposed development on local tourist accommodation providers in the area will be so adversely financially damaging that many if not all may lose their businesses altogether. The MHEIA has entirely ignored such impacts and risks. This is a gross omission.

#### SCOPE

Within a roughly 6-mile radius of Robertson village, there are at least ten (10) identifiable, individual holiday cottages. This is a conservative count based only on a manual scrape of publicly visible listings (e.g., Airbnb, VRBO, Unique Cottages, Sykes Cottages, Crabtree & Crabtree, visitscotland.com, cottages.com, booking.com, Expedia, TripAdvisor, chisholme.org, summerhousestays.co.uk, borthwickshiels.com). These conservatively estimated ten (10) businesses are all at risk of significant, negative financial impact.

Invenergy could have done the same manual scrape but elected not.

#### METHODOLOGY

Internet research and desk-top analysis.

Published newspaper article(s), e.g.



Invenergy could have done this but elected not.

**ASSUMPTIONS**

- average price per week of £790 (mid-point)
- 63% average annual occupancy rate (230 nights / 33 weeks per year) for rural, scenic cottages that are dog-friendly
- guests come here for rural peace & quiet, seclusion, privacy, scenery, walking, nature

**IMMEDIATE IMPACT**

There is a substantial body of research about the impact of onshore wind farm developments on tourist accommodation in rural, scenic areas. It shows that a material number of potential guests will actively avoid areas where turbines are visible, where the landscape (before development) was rural, scenic, tranquil, dark-sky, and allowed/encouraged “escape from modern life”, and where the focus (before development) was walking, nature, and landscape. That is the case here. The area here in question is exactly the sort of area whose tourism market is highly sensitive to industrial development. It is remote, with a low-population density. It has high landscape value. Visitors come here seeking peace and tranquillity. There are ‘dark skies’. There is endless nature, peace, quiet, and stunning views 360 degrees all around.

Research forecasts the likely impact to be a 25% - 40% drop in bookings. Taking a worst-case scenario approach – as is required by applicable regulations – local holiday businesses would be forecast to lose 40% of their income annually if the proposed development were to go ahead; and this could be expected to occur not only for each of the 40 years proposed for the operation of the development but also for the 28 months of proposed construction which precede it.

Taking a currently estimated average of £26,070 of gross annual income per property (£790 per week x 33 weeks = £26,070) and thus £260,070 per year for 10 properties, a 40% loss computes to £10,428 per property (£26,070 x 40% = £10,428) and £101,428 per year for all 10 properties. Holiday cottage owners, in an attempt to preserve business, might feel pressured, even forced, to lower prices, offer discounts, and/or accept shorter stays, the end result of which could compound the 40% occupancy loss with an additional 5, 10, 15, even 20% further revenue loss.

**CUMULATIVE AND LONG-TERM IMPACT**

When these figures are multiplied out to the 42.33-year impact of the proposed development (28 months construction plus 40 years of operation), and assuming no weekly rate increases to keep pace with inflation, the forecast financial losses are enormous: £441,417 per property, £4.414 million for ten properties.

**CONCLUSION**

Not only will the proposed development, if granted, ruin the peace and health of residents, it will threaten to ruin thriving, attractive, desirable local businesses. The omission of any assessment of this issue means that a correct weighing of local harm versus national benefit has not been done. Yet such weighing is required. The forecast major, negative impacts on holiday cottage businesses must be addressed in the planning deliberations. Once they have been, the required weighing of harm versus benefit suggest Invenergy’s Application must be refused.

**PRE-APPLICATION CONSULTATION REPORT – COMMUNITY OPPOSITION**

**INTRODUCTION**

The Pre-Application Consultation (PAC) Report (prepared by Invenergy’s PR company, Invicta) completely fails as a fair representation of what occurred during the pre-application consultation period when Invenergy (and Invicta) engaged with local communities through two consultations and one informational meeting. The PAC Report over-claims the success of local community consultations against clear evidence demonstrating unresolved objections. It boldly asserts that a mere seven (7) completed feedback forms are “proof” of community views. It omits to report on the many verbal discussions with community members and residents which expressed opposition to the proposed development. It makes no statement about the significant number of people who attended the various consultations and the informational meetings. It glosses over the

major design changes in the proposal which occurred after the second consultation, claiming that a follow-on informational meeting was sufficient to advise the affected communities of these significant changes.

The ECU should reject Invenergy's proposal on the grounds that it has failed to sufficiently take into consideration and report the community's views.

#### THE "MINIMUM EXPECTATION" HAS NOT BEEN MET

The PAC Report quotes the expected standard for pre-application consultations:

*"Whilst there are no statutory pre-application consultation procedures for Section 36 and Section 37 applications under the Electricity Act, the minimum expectation is that applicants carry out pre-application consultation and appl[y] the principles of the consultation process recommended for a 'major' planning application as set out in the Town and Country Planning (Scotland) Act 1997 (amended in 2006 and 2019) and circular 3:2013- Development Management Procedures."*

Invenergy may like to claim it has satisfied this minimum. It has not, or it has not done so in good faith. All it has done is tick some boxes with *de minimis* effort. This is not enough to pass muster and should not be allowed.

The first consultation round of February 2025 took place across two days in three venues (Hawick, Teviot, Roberton). The development Invenergy proposed at that time comprised 42 turbines. The PAC Report acknowledges that the community feedback Invenergy received expressed deep concerns over this, particularly regarding visual impact; so much so that Invenergy revised its proposal down to 27 turbines by the time of the second consultation round in May 2025, again across two days and the same three venues. At its third time of engaging with the local community in October 2025, Invenergy's proposal had reduced down to 13 turbines on the grounds of, again, community feedback and also seismic array concerns.

Following the first revision in Invenergy's proposal from 42 to 27 turbines, what Invenergy should have done was start consultation afresh, treating what was its second consultation (May 2025) as a first consultation round on 27 turbines. A reduction from 42 to 27 turbines cannot be said to be anything other than a major change sufficient to trigger a new consultation round rather than the continuation of one previously started. Surely, this would have been the more correct good faith interpretation of the "minimum expectation".

Then, with the second reduction from 27 turbines to 13, Invenergy should again have started a new round of consultation. As before, a reduction from 27 to 13 turbines cannot be said to be anything other than a major and material change. Invenergy not only did not consult on this change. It did worse. It presented the revised 13-turbine proposal as a done deal, for information only. The affected communities were not consulted at all. There was no opportunity to comment or provide feedback. Indeed, Invenergy admits it did not even provide or offer any feedback forms to attendees at this third meeting round because "it was to inform only", not consult. Invenergy states:

*"Feedback forms were not made available at this information event as this event was solely to inform the public of the final iteration of the proposed development, having already taken into account feedback from the previous two events. It was the intention of the Applicant to submit the application to the Energy Consent Unit, imminently following this information day"*

Yet, the final presentation showed a proposed Mid Hill wind farm development scheme which differed materially from what had been consulted upon. The reduction to 13 turbines happened after formal consultation ended, and the affected communities were not consulted on this final scheme. Invenergy should be required to undertake a full and proper consultation round on the proposed 13-turbine development, and until that is complete its Application should not be progressed.

#### THE CONSULTATIONS CONTAINED FACTUALLY INCORRECT AND/OR INCOMPLETE INFORMATION

During consultation, Invenergy told community attendees that 200m turbines were the only option. In the ECU Application, Invenergy proposes turbines "up to" 200m blade-tip height. The option of turbines of lesser height than 200m was never presented at consultation. Invenergy has never properly consulted with the community on the proposal now put forward to the ECU. The consultations contained factually incorrect information and should be re-conducted.

Whilst Invenergy acknowledges that community feedback received during the first round of consultations was part (if not all) of the reason for reducing the proposed development from 42 to 27 turbines as presented at the second consultation round, there was no explanation of or acknowledgment that turbine height, turbine layout, and turbine numbers were also part of Invenergy's effort at seismic mitigation. In fact, at no point during community consultation did Invenergy provide a clear explanation of how or why Mid Hill would be allowed so close to the Eskdalemuir Seismic Array in the first place, instead referring repeatedly to "awaiting government decision". These seismic array issues were not meaningfully addressed during community consultation. The consultations were factually incomplete and should be re-conducted.

#### COMMUNITY OPPOSITION IS INACCURATELY PRESENTED

The two consultation rounds of February and May 2025 and the informational meetings of October 2025 cannot be said to have been genuine attempts to engage with the local community, discover its views, and respond to them. Invenergy states the reduction from 42 to 27 turbines and the further reduction from 27 to 13 turbines were in part a response to community feedback voicing concerns and opposition, but engaged with the community no further. Moreover, whilst it may be true that community views are "neutral" with respect to renewable energy in general, it is absolutely not the case that community views are neutral with respect to the proposed development. Invenergy knows this, and it is disingenuous for it to imply otherwise. The very fact that the BLCG was formed in opposition to Invenergy's proposal and is officially recognised

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and listed as a Consultee to Invenery is evidence of strong opposition in the most locally affected area. Any implication to the contrary is misleading.

### INVENERGY COLLECTED NO MEANINGFUL DATA CONCERNING COMMUNITY VIEWS

In the PAC Report, Invenery asserts that only seven (7) paper Public Opinion Feedback Forms were completed during the first consultation round in February 2025, that zero (0) were completed during the second round in May 2025, and that no feedback forms were necessary at the third round because the meetings were informational only. Seven completed forms across two rounds of public exhibitions in three venues, Hawick, Teviot and Roberton does not represent “wide-ranging” or “meaningful” community engagement. Nor does it demonstrate community disinterest in Invenery’s proposal. Many attendees reported afterward to BLCG that they were never shown a paper feedback form, were not even told they were available on site. This invisibility of the forms cannot be allowed to stand in for “wide-ranging” or “meaningful” community engagement.

The two consultation rounds and the informational meetings were all well attended. Invenery provides no data as to the number of attendees at any of the meetings despite providing a sign-in sheet and asking people to sign in. Why? It sounds suspiciously like trying to sweep evidence of community interest and opposition under the proverbial rug.

Invenery makes no mention of the many one-on-one discussions held during the consultation rounds between local residents / community members and the Invenery team and its experts. These discussions were verbal and most voiced strong opposition. Whilst these discussions may not have been recorded or notes taken at the time, Invenery’s failure to mention both their occurrence and their content is highly suspect. So too is its failure to offer any explanation as to why it omitted any mention of these many discussions in the PAC Report.

### INVENERGY CANNOT PRETEND ABSENCE OR IGNORANCE OF LOCAL OPPOSITION

The community’s negative views have been repeatedly and widely reported. The number of printed commentaries (both newspaper articles and advertisements) highlighting local concern and opposition which have been published in the local Hawick paper and The Scotsman throughout 2024 and 2025 is evidence of this. The material is published. It is in the public domain. Invenery and Invicta are well aware of this publicity. Invenery should have included mention of this considerable evidence of public opposition in its PAC Report and discussed what it intended to do in response. It has done nothing. It pretends ignorance and remains silent. This level of game-playing should not be allowed. Nine (9) of these newspaper items are copied as jpeg images immediately below.





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**ACTUAL DATA IS NOW AVAILABLE AND SHOULD BE TAKEN INTO ACCOUNT**

Commencing in February 2025 and completing in December 2025, the BLCG undertook a house-to-house survey of Borthwickwater Valley residents in order to gain a true picture of residents' views on Invenery's proposed wind farm development at Mid Hill. Volunteers walked the valley, knocking on doors, asking a series of questions on a printed, paper form and recording residents' responses. Not counting properties which were vacant (for rent, under renovation, holiday let) and properties where no one was home (despite repeated attempts), 54 surveys were completed. Of these, 43 believed the

wind farm development would ruin the Borthwickwater Valley; 11 did not. This equates to nearly an 80% opposition rate. This is the actual community view.

Now that this is established by virtue of BLCG's own volunteer efforts, Invenergy cannot be allowed to continue to claim, imply, or infer that "most local people are not opposed". Any such assertion is not supported by any data, and it now directly contradicts data gathered by the BLCG.

The original paper surveys are held by the BLCG Secretary and can be obtained by emailing [info@blcg.org](mailto:info@blcg.org). A summary of the survey results are contained in Appendix 1 attached immediately below.



BLC -  
Borthwickwater Land

## CONCLUSION

The PAC Report over-claims, under-reports, misrepresents and is substantially inaccurate. These failures in due process strongly suggest that Invenergy's Application should be denied.

## **CHAPTER 02 DESCRIPTION OF THE DEVELOPMENT – ANEMOMETRY MAST**

At the time of Invenergy's pursuit – in the latter half of 2025 – of permission for a temporary anemometry mast which it wanted to erect within the environs of Broadlee Loch, there was no mention of it ever becoming permanent. The mast's intended permanence was also absent from the Scoping documents of August 2024. See, page 17 of the Scoping Report (Section 2.2 – Proposed Development Description).

Now, in Invenergy's Application, a permanent mast is proposed though no detail about it, its location, construction or impacts are given, other than that it would be significantly larger than the temporary one approved on appeal by SBC last year – 119m instead of 90m.

This intention to erect a permanent mast is referenced at least three times in Invenergy's Application documents but in every instance it is literally only a reference, words to the effect of "there will be a permanent anemometry mast". See,

- (1) Mid Hill Planning Statement, section 1.5.1, page 4;
- (2) Volume 1 Non-Technical Summary, page 7: "a permanent anemometer mast, with a height of up to 119 m"; and this chapter;
- (3) Volume 2, Chapter 02 Description of the Proposed Development, section 2.2.1, page 2-2.

In none of these references is any detail given as to the location of this proposed permanent anemometry mast. Is it a replacement of the 90m mast approved on appeal by the Scottish Borders Council to be temporarily erected near Broadlee Loch for 5 years? This proposed permanent mast is 119m high, not 90m. Does this mean it is a different mast entirely? Is it a second mast in the same Broadlee Loch location? Is it proposed to be located somewhere other than Broadlee Loch? No information is provided.

Further, there is no assessment of the impacts of a permanent anemometry mast on birds (Ch 6), on protected species (Ch 7) or on geology, hydrology, hydrogeology or peat (Ch 11). Nor is there anything in Chapter 9 (traffic and transport) or any of its appendices describing the proposed mast's erection, the routes required (public roads, forest/farm/estate tracks), the impact of (presumably) needing to "improve" those routes, the overall environmental impacts not only of its proposed erection and operation but also of its decommissioning at the end of the 40-year operational life of the proposed development.

Based on the above, BLCG objects to the entirety of Invenergy's Application. All Invenergy has permission for is a temporary mast 90m high for five (5) years in the environs of Broadlee Loch. Not only is there now confusion and contradiction between a temporary (5-year) mast and a proposed permanent one (whose location remains a mystery), but there is application creep by the back door. Invenergy asserted to regulators last year that there would be only a temporary mast. Now it's impermissibly trying for a permanent one. Invenergy's Application cannot be allowed to proceed.

## **CHAPTER 05 LANDSCAPE AND VISUAL**

### INTRODUCTION

BLCG objects to Invenergy's approach to and conclusions in Chapter 5 Landscape and Visual on the grounds that, whilst they may demonstrate superficial compliance in certain areas, there are such significant omissions and errors in other areas that the entire validity and completeness of the assessment must be called into question. Invenergy's Application cannot be allowed to proceed on the basis of the materials submitted here.

BLCG's objection is based on the text of Chapter 5 itself together with associated Figures 5.1, 5.2, 5.3, and 5.9 (ZTVs), Figures 5.4 and 5.5 (Landscape Character & Designations), Figures 5.6 and 5.7 (Visual Receptors), Figure 5.37 (Residential Receptors), Figures 5.38a-5.52b (Wirelines), Figure 5.8 (Cumulative Baseline) as well as Technical Appendices (TA) 5.1 (LVIA Methodology), TA 5.2 Landscape Assessment, TA 5.3 (Visual Assessment from Viewpoints), TA 5.4 (Cumulative Assessment), TA 5.5 (Aviation Lighting Assessment, and TA 5.6 (Residential Visual Amenity Assessment (RVAA)).

The ECU should be aware that the table at the beginning of Chapter 5 lists Eastings and Northings but then mistakenly transposes them into National Grid References (NGRs) in the following text. The same mistake occurs in TA 5.3. It is, consequently, impossible to correctly locate the Viewpoints in question.

#### APPLICABLE LAW, POLICY AND GUIDANCE

The laws, policies and guidance which Invenergy is required to apply, and against which its compliance must be assessed, are:

- Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (EIA Regulations) (require a lawful, complete, and objective assessment of likely significant effects)
- Civil Aviation Authority (CAA) Regulations (mandatory for lighting of turbines with blade tips higher than 150m, as is the case here) and NatureScot Aviation Lighting Guidance (Nov 2024)
- National Planning Framework 4 (NPF4), particularly Policies 4 (Natural places), 11 (Energy) and 14 (Design, quality and place)
- Guidelines for Landscape and Visual Impact Assessment 3<sup>rd</sup> ed. (GLVIA3), jointly published by the Landscape Institute (LI) and the Institute of Environmental Management and Assessment (IEMA), NatureScot Visualisation Guidance (2017) and NatureScot Cumulative LVIA Guidance
- NPF4 Policy 15 (Local living and amenity) and Landscape Institute (LI) Residential Visual Amenity Assessment (RVAA) Guidance (2019)<sup>1</sup>

Given Invenergy explicitly cites and references these materials, it cannot claim not to be aware of what they require. Nevertheless, Invenergy has not complied with their requirements.

#### INVENERGY'S NON-COMPLIANCE

##### EIA Regulations

EIA Regulations require Invenergy to present all components of Landscape and Visual Impact Assessment (LVIA), assess landscape, visual, cumulative, residential amenity and aviation lighting, document and acknowledge consultation responses, and follow NatureScot's advice re ZTV-led scoping. However, EIA law also requires an objective assessment of all likely significant effects on these components. Several of Invenergy's methodological decisions undermine that requirement. Invenergy has not demonstrated full compliance with EIA Regulations.

##### CAA Regulations and NatureScot Aviation Lighting Guidance (Nov 2024)

Invenergy may have obtained approval for its reduced lighting scheme from the Civil Aviation Authority (CAA) on 26<sup>th</sup> August 2025, see TA 5.5, but since then the MoD has objected on the basis of this, asserting that the proposed aviation lighting is inadequate, underassessed, and too high risk. Invenergy's visualisations assume 200 cd, and whilst 2000 cd operation in poor visibility is acknowledged, it is not assessed.

In addition to incomplete compliance with the applicable CAA Regulations, NatureScot guidance does not allow worst-case assessment. It only allows proportionality. What Invenergy have done here is worst-case assessment only. Invenergy has also excluded hilltop viewpoints on convenience grounds. Applicable NatureScot guidance states they should not be. The result of Invenergy's approach is an understatement of the severity and extent of the night-time operation of the proposed turbines.

##### NPF4 Policies 4, 11, and 14

NPF4 Policy 4 on Natural Places requires that any proposed development protect the character, special qualities and integrity of valued landscapes, including designated and locally important areas. In Figure 5.5 and TA 5.2, Invenergy maps designated landscapes but leaves Special Landscape Qualities (SLQs) systematically unassessed. This contravenes NPF4 Policy 4's requirement that what makes landscapes special must be assessed, not merely their visibility in relation to a proposed development. Basically, Invenergy uses distance and screening as substitutes for proper SLQ analysis. Because of this, Invenergy's LVIA assessments do not demonstrate that the integrity of the designated landscapes would be safeguarded if the proposed development were to go ahead.

NPF4 Policy 4 also protects perceptions of remoteness, wildness and dark skies. Invenergy's exclusion of hilltop and upland receptors biases its assessment, causing an understatement of the erosion of natural place qualities that would result if the proposed development were to be approved.

NPF4 Policy 11 supports energy infrastructure proposals only where significant adverse impacts on the environment and communities are avoided, minimised, or appropriately mitigated. In order for this to be determined, impacts have to be clearly identified and justified. NPF4 Policy 11 does not allow the sort of methodological bias which TA 5.1 espouses when it states that "all effects are assumed to be adverse". Pre-classifying effects as adverse removes objectivity and prevents any proper testing of magnitude, reversibility, or acceptability. This is contrary to NPF4 Policy 11's requirement of a transparent

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<sup>1</sup> BLCG has commissioned a detailed independent landscape report from a qualified landscape architect to comment on the failings of the Applicant to carry out proper visual assessments of impacted private properties as required by RVAA guidance. This report will be provided as soon as it is complete. In the meantime, it is adopted and incorporated herein by reference.

and balanced assessment of impacts. Without such, an LVIA cannot be relied upon to determine whether impacts are genuinely unavoidable or whether alternatives or mitigation could reduce harm.

NPF4 Policy 11 also requires that aviation lighting and night-time impacts are fully understood, including reasonably foreseeable worst-case scenarios. The Policy deems night-time lighting to be a permanent operational effect. Invenergy's aviation lighting assessment models only 200 cd lighting despite acknowledging operation at 2000 cd in poor visibility. NPF4 Policy 11's tests for minimisation and mitigation cannot be met where the severity of effects such as this have not been properly assessed.

Lastly, NPF4 Policy 11 requires assessment of cumulative impacts on landscapes and communities. Because Invenergy's Figures 5.8, 5.9 and TA 5.4 exclude scoping schemes – despite clear evidence of clustering and cumulative interaction – Invenergy's baseline construction significantly understates the combined harm. As a result, Mid Hill's contribution to cumulative landscape and visual change is materially underestimated.

NPF4 Policy 14 requires that developments be well-sited and well-designed, responding to and respectful of landscape character, context and sense of place. The Policy also requires that proposed developments avoid unacceptable impacts on visual quality. It requires context-led design assessment, not formulaic distance rules. Invenergy's scoping out of landscape and visual effects solely on the basis of distance thresholds, as it does in TA 5.1, 5.2, and 5.3, directly contravenes these requirements. Limiting its assessments on the basis of distance allows Invenergy to leave out the material effect over long distances of the perceived scale and dominance of tall turbines and aviation lighting. The consequence of this is that Invenergy's LVIA's do not provide sufficient evidence to support a conclusion that the proposed development responds appropriately to its landscape setting.

NPF4 Policy 14 applies to a 24-hour experience, including night-time character. Invenergy's Landscape Character Types (LCT) assessments focus solely on daytime visibility. They also assume forestry screening. This avoids the fundamental alterations to landscape legibility and perception which occur with aviation lighting. The result is a complete underassessment of design quality and place-based impacts.

#### GLVIA3 and NatureScot Guidance

In TA 5.1, Invenergy asserts, "Using a precautionary approach, unless otherwise stated, all likely effects identified are considered to be negative or adverse." This is not compliant with GLVIA3. GLVIA3 requires the identification of change, an evaluation of sensitivity and magnitude, and a reasoned judgment as to effect. Pre-classifying all effects as adverse removes neutrality, predetermines outcomes, and conflicts with GLVIA3 paragraphs 2.21–2.24 which specifically make clear that landscape and visual effects are not inherently adverse and must be identified through an objective process that distinguishes change from effect, applies professional judgement, and explains the reasoning behind significance conclusions. Because Invenergy has not done this, it has committed a fundamental methodological error.

Invenergy's analysis scopes out effects solely by distance: all viewpoints > 25km away, all landscape > 15km away, all settlements > 10km away, all RVAAs > 3km away, and the cumulative impact of development schemes which are < 50km away or which are only at scoping stage. GLVIA3 (and NatureScot guidance) explicitly reject distances as a proxy for significance, particularly in the case of tall turbines (200m at blade tip is, obviously, very "tall"), aviation lighting, and cumulative stacking. To do otherwise creates artificial incompleteness. This is what Invenergy has created.

In TA 5.2 and Figures 5.4 and 5.5, Invenergy identifies National Scenic Areas, Special Landscape Areas, Wild Land Areas, and gardens and designed landscapes within 25km. Even having done so, the effects of the proposed development on SLQs have not been systematically assessed. Instead, Invenergy equates visibility with effect and uses distance and screening to dismiss impacts. GLVIA3 requires SLQ-specific analysis, not generic conclusions.

TA 5.2 discusses lighting effects on LCTs only theoretically, does not integrate night-time perception, and assumes forestry screening without seasonal or management analysis. This underassesses night-time landscape character change.

Figures 5.6 and 5.7 show extensive visual receptor coverage, but TA 5.3 documents the exclusion of many requested viewpoints, including residential locations, upland paths, hill summits, and settlement viewpoints. Problems include that road users are over-represented, residents and quiet recreational receptors are under-represented, and allowable substitution of "proxy viewpoints" is asserted but not demonstrated. This introduces systematic receptor bias. Further, routes are assessed descriptively without cumulative journey analysis being undertaken and without evaluation of repeated or prolonged exposure. All of this conflicts with GLVIA3's requirement to assess experienced views, not mere isolated snapshots.

In Figure 5.8, Invenergy shows a dense cluster of consented, applied for, appealed, and scoping schemes within 25km of its proposed development site. Despite this clear clustering, TA 5.4 then excludes scoping schemes from any detailed assessment. NatureScot guidance only allows exclusion if no hotspots emerge. There are clear hotspots here. Invenergy's omission in TA 6.5 is significant.

In Figure 5.9, Invenergy shows extensive overlap between the proposed Mid Hill wind farm development and other wind farms, but its narrative conclusions then underplay these overlaps and focus – incorrectly – on separation instead of focusing on dominance and stacking as is required.

#### NPF4 Policy 15 and Landscape Institute RVAA Guidance

With respect to residential amenity effects, NPF4 Policy 15 does not permit them to be dismissed by distance alone. Landscape Institute guidance also explicitly rejects fixed distance thresholds for visual amenity. Invenergy's arbitrary setting of a 3km distance threshold excludes a Grade A listed private property, Harden. This exclusion of an important and historic property (its history and physical placement being inseparable from the history of the Border Reivers, for example) on the

basis of distance alone serves as a perfect illustration of how and why fixed distance thresholds for visual amenity are not permitted either by NPF4 Policy 15 or by LI guidance. Invenergy has not conducted its RVAA assessments in good faith or in compliance with requirements.

In further non-compliance, even within its arbitrary 3km distance, TA 5.6 materially under-reports night-time amenity impacts. In fact, night-time lighting impacts are not integrated into Invenergy's RVAA conclusions at all. This does not comply with NPR4 Policy 15's explicit requirement to assess living conditions, which are 24/7.

TA 5.6 also does not comply with the NPF4 Policy 15's protection of individual household amenity, not averaged experience. Invenergy's RVAAs treat multiple dwellings as single receptors. Grouping dwellings like this obscures differences in orientation, elevation, and outlook. By clustering and grouping as it has, Invenergy has failed to demonstrate that unacceptable impacts on specific dwellings would not arise if the proposed development were to go ahead.

Invenergy's RVAAs exclude all dwellings beyond 3km. The Landscape Institute's guidance explicitly avoids fixed distances. Tall turbines with aviation lighting can affect residential amenity well beyond 3km, particularly at night. Invenergy's improper grouping of properties into property 'sets' further masks individual circumstances. These are material omissions under LI guidance, not permissible matters of judgement.

Set out below is BLCG's property-by-property assessment of Invenergy's submitted RVAAs against NPF4 Policy 15, Landscape Institute (2019) RVAA guidance, and established Scottish practice. It identifies multiple failings, gaps, omissions and errors in Invenergy's RVAA work. In this review, BLCG has looked at how TA 5.6 actually treats outlooks for each property, not merely what it claims to consider. As can be clearly seen, BLCG's conclusions are correct: Invenergy's RVAA treatments do not satisfy RVAA requirements. The applicable standards are: (1) identify principal *internal* outlooks including front, rear, and side elevations, as well as upper floors where they materially affect visibility; (2) assess private *external* amenity space including gardens, yards, patios (terraces), and curtilage; (3) use the actual private outlooks, not substitute public viewpoints, unless substitution is explicitly justified and demonstrably representative of the private outlook(s) it is replacing; (4) apply individual judgment not masked averaging by impermissibly grouping properties. Failure on any one of these is methodological non-compliance, even if other aspects of the assessment are adequate.

Woodburn (8 properties), 1.5km – TA 5.6 groups multiple dwellings together, obscuring potentially significant differences between dwellings. RVAA guidance does not permit grouping for precisely this reason. Grouping masks differences in elevation, outlook, and proximity. TA 5.6 heavily relies on woodland filtering for the whole group of properties, assuming without justification that the surrounding trees will be permanent and effective. There is no confirmation of upper floor views or garden / curtilage experience (critical at 1.5km). TA 5.6 makes only generalised observations and draws only generalised conclusions. Conclusion – non-compliant.

Broadlee and Muselee, 1.6km – TA 5.6 notes rear views uphill to the south (i.e. towards the proposed site), recognises outlooks other than front, and uses wirelines from nearby locations. While these are positive notes in Invenergy's assessment of these two properties, there is no clear confirmation of upper-floor views, gardens are referenced only implicitly, and the assessment appears largely descriptive. Conclusion – non-compliant.

Philhope, 1.8km – TA 5.6 scopes this property out on the basis of "no theoretical visibility", assuming that buildings and orientation remove visual exposure. Such scoping out would only be acceptable if it had resulted from on-site assessment. As the assessment does not explicitly confirm that upper-floor checks were made or that there is or is not garden or curtilage visibility, it is clear that on-site assessment did not occur. A conclusion of "no visibility" cannot be theoretical. Conclusion – non-compliant.

Chisholme and Parkhill (7 properties), 1.8km – Not only is the grouping of 7 properties into a single RVAA not permissible (as previously pointed out for Woodburn) but TA 5.6 uses grouped wirelines. Some properties have different orientations from others. Some properties are set within trees. There are no upper floor assessments. There are no garden-level assessments. Conclusion – non-compliant.

Hoscote (6 properties) and Deanburnhaugh (2 properties), 2.3km – TA 5.6 groups multiple dwellings together. RVAA guidance does not permit grouping as this masks differences in elevation, outlook, and proximity.

The properties' orientations are described at only a high level. These high-level descriptions are then used to dismiss several properties on the basis of aspect. Much is made of the direction in which properties "look", most often highlighting that a property "looks" in a direction away from the proposed turbines. Leaving aside whether or not the claimed direction of outlook is correct, stating a single outlook for a property is inadequate and also misleading. Residential properties, just such as these, have windows facing in all directions. For example, TA 5.6 pages 7 and 10 state that Hoscote Lodge "faces west" (i.e. away from the proposed turbines) when the property has windows on all sides, including facing south and east looking directly at the proposed turbine locations. As further example, the same sections of TA 5.6 state that Hoscote House "is lower on the slopes" and thus that its views will be "more contained by trees around the front lawn." This is incorrect. Hoscote House sits higher and has uninterrupted views to the south and southeast to Muselee Hill, thus directly in line to the proposed turbines. The tops of the highest trees are well below the sight line to the hills and will screen nothing. The proposed turbines will sit far higher than the trees. TA 5.6 appears to have been compiled in a perfunctory manner and on a desk-top basis. This cannot be deemed sufficient.

In addition to some properties only being assessed from their "front" outlooks, there is no assessment of views from inside the properties, including from upper floors, as required by RVAA guidance. Nor is there acknowledgement of garden outlooks where view impacts are, by definition, not constrained by which way a property "looks" or faces, and also where the additional impacts of noise and flicker will be even more severe.

Tree cover is described incorrectly and then used to dismiss outright several of the Hoscot properties because of tree cover, ignoring seasonality and any confirmation of permanence. For example, in the case of Gardeners and Woodlands, there would indeed be some tree screening at certain times of year, but TA 5.6 ignores that most of the trees around those properties are deciduous and could only provide screening between May and September when the trees are in leaf. Again, the briefest of on-site inspections would have revealed this. Clearly, Invenergy has not inspected on site. Moreover, winter storms (including the most recent a few short weeks ago) have severely reduced the extent of tree cover. Such storms are an increasing feature of our changing climate. There can be no certainty as to the longevity of any so-called “tree screening” and should not be allowed to be relied upon when assessing the RVAA impacts of a proposed 40-year turbine operational lifespan.

While TA 5.6 accepts that Pathhead and Hoscot House would experience a “high magnitude of change to views”, impacts to Hoscot Lodge and Foresters Cottage also fall in this category. The proposed development would be inescapably dominant, overwhelming and overbearing so as to make many of the properties in the Hoscot / Deanburnhaugh group (the impermissible group) unattractive places to live. Conclusion – non-compliant.

Meadshaw, 2.5km – TA 5.6 states that the property “looks south-east over to site” relying on orientation description and wireline without explicit discussion of rear or side outlooks, upper floor views, or garden / curtilage outlook. While front-facing elevation is noted, RVAA guidance requires confirmation that other elevations and curtilage do not materially change that exposure. There is no evidence this has been tested. Conclusion – non-compliant.

Milsington, 2.5km – TA 5.6 scopes out this property due to woodland and orientation without any further assessment. While excluding this property in this way may or may not be justified, without further assessment nothing can be ascertained one way or the other. Also, there is no mention of upper floor views and no garden assessment. The absence of these would only be permissible if the screening conclusion had been properly evidenced. It has not been. Conclusion – non-compliant.

Borthwickbrae Farm / Burnfoot Cottages (2 (or more?) properties, 2.7km – Once again, TA 5.6 has impermissibly grouped multiple properties together. Though it distinguishes between inhabited and uninhabited buildings (it is correct to exclude uninhabited properties), it focuses only on the principal elevation. There are no assessments of rear or elevated outlooks and no clear assessment of garden or yard areas. Conclusion – non-compliant.

Chapelhill, 2.7km – TA 5.6 scopes out this property due to topography and trees. As with the other scoped out properties, RVAA compliance would depend on properly assessed (i.e. proven) screening. No such evidence is presented here. Conclusion – non-compliant.

Newmill & onwards – TA 5.6 increasingly relies on distance, screening, and substitution with public viewpoints. As the distance approaches the arbitrary 3km threshold Invenergy has selected, TA 5.6 offers decreasing specificity. RVAA guidance does not permit progressive dilution of assessment quality or detail simply because distance from the proposed site has increased. Individual residential amenity must still be demonstrated. Conclusion – non-compliant.

As this property-by-property review shows, TA 5.6 is full of shortcomings. Upper floors have not been explicitly assessed. Rear and side outlooks, though sometimes acknowledged, have not been consistently tested or described. Mostly, they have been ignored or deferred. Gardens and curtilage are mentioned occasionally but not systematically assessed. TA 5.6 uses property groupings and screening assumptions to mask individual property impacts, clearly problematic when 6-8 dwellings have been grouped, as TA 5.6 does multiple times. All of these shortcomings are failures to meet RVAA guidance. This repeated uncertainty / lack of information / use of assumptions / desk-top only review lends significant weight to a conclusion that Invenergy has failed to comply with NPF4 Policy 15 through non-compliance with RVAA guidance.

## CONCLUSION

Invenergy’s compliance with applicable laws, policies and guidance in Chapter 5 and its associated figures and appendices is procedural only. Any claim of substantive compliance fails. Invenergy’s LVIA and RVAA assessments are methodologically biased, selective in their scoping, arbitrary in their scoping distances, systematically underassess residential and night-time effects, proffer selective and incomplete cumulative assessments, do not provide adequate cumulative assessments, and omit reasonably foreseeable effects. These deficiencies are material. Even if Invenergy to re-assess and re-submit on LVIA and RVAA grounds, the inadequacies shown here strongly argue for denial of the Application.

## **CHAPTER 06 ORNITHOLOGY**

### INTRODUCTION

The ornithological survey and assessment submitted by Invenergy as part of its Application fails to provide the ECU with a robust, precautionary or legally defensible true-view of the adverse impacts on protected and declining bird species which would ensue if the proposed development were approved to go ahead. The survey and assessment are materially flawed, methodologically unsound, and not compliant with NatureScot or Chartered Institute of Ecology and Environmental Management (CIEEM) guidance. Most notably, the conclusions presented in Technical Appendix 6.1 (Ornithology) (TA 6.1) and Technical Appendix 6.3 (Ornithology Assessment Methodology) (TA 6.3) are not supported by baseline evidence. Further, they are contradicted by the Birds Report independently prepared for BLCG in June 2025 by NG Ecology and Rural Services, an independent consultant. A copy of this Birds Report can be obtained by emailing [info@blcg.org](mailto:info@blcg.org).

#### INCOMPLETE AND NON-COMPLIANT SURVEY DATA IS RELIED UPON

Invenergy relies on incomplete datasets as baselines for its ornithological impact assessment(s) without applying confidence gradings, without identifying data gaps as significant constraints, and without adopting a precautionary approach to bird population estimates or collision risk. This is contrary to NatureScot (2025) guidance which requires that where survey coverage is incomplete, uncertainty must be explicitly carried through to assessment and significance conclusions.

#### BREEDING STATUS UNCERTAINTY IS SUPPRESSED

In the independent ornithological survey commissioned by BLCG, our expert determined that “Conclusions cannot be drawn about the breeding status of all observed species.” In contrast, TA 6.1 assigns breeding or non-breeding status to Schedule 1 and BoCC Red List species without having confirmed such status. Invenergy then uses its essentially random assignment of breeding or non-breeding status to downgrade receptor sensitivity. Such treatment also does not reflect the uncertainty inhering in its magnitude or significance scoring. What this means is that Invenergy has systematically suppressed uncertainty and materially biased the assessment toward non-significant conclusions. As at 2021, there are 70 bird species on the BoCC Red List, up from 36 in 1996. Invenergy cannot be allowed to be so cavalier.

#### ANEMOMETRY MAST RISK IS DOWNPLAYED

The proposed guyed anemometry mast (leaving aside that Invenergy seems to be referring here to its proposed temporary mast at Broadlee Loch, ignoring the fact that the Application proposes a permanent mast, location unspecified, and to which BLCG has objected in its entirety in Ch 2 above) is a high collision risk structure, located in proximity to Schedule 1 and BoCC Red List species, specifically, nesting Lapwing (on the BoCC Red List). In Chapter 6 here, Invenergy treats the mast as a minor (inconsequential), temporary feature. It is not. Whether 90m high and temporary at Broadlee Loch or 119m high and permanent at Broadlee Loch (or somewhere unspecified by Invenergy), it is major and presents high collision risk.

Invenergy does not model collision risk and does not assess the cumulative impacts of the proposed mast(s) and the proposed turbines. It also proffers no detailed mitigation. These errors and omissions stand in direct contradiction to baseline evidence and impact conclusions. They are also inconsistent with NatureScot guidance on guyed structures.

#### NATURAL HERITAGE ZONES (NHZs) ARE MISUSED

Invenergy relies heavily on NHZ-scale assessments to determine magnitude and significance. This is incorrect. The ornithological assessment dilutes local impacts and does not meet NatureScot requirements to assess effects at the appropriate ecological scale. BLCG’s independent expert recorded the presence of site-faithful breeding populations (e.g. Curlew (on the BoCC Red List), Lapwing (on the BoCC Red List), and Snipe) and determined there will be adverse impacts at local population level for these endangered species. Invenergy has provided no basis for concluding that local habitat integrity losses are insignificant.

#### COLLISION AND DISPLACEMENT RISKS ARE MATERIALLY UNDERESTIMATED

Individual birds repeatedly use the same airspace with frequent movements through the proposed turbine envelope. This translates into an elevated collision risk due to habitual site use. Invenergy’s assessment fails to relate this flight behaviour to rotor-swept height, does not convert these known and observed bird behaviours into quantitative risk, and does not apply precautionary uplifts. This results in collision and displacements risks both being materially underestimated.

#### CUMULATIVE IMPACT ASSESSMENT IS DEFICIENT

Invenergy’s cumulative assessment relies on incomplete information for multiple nearby developments, provides no justification for assumptions made where data are missing, and fails to apply a reasonable worst-case scenario. This does not meet EIA Regulations requirements for cumulative assessment.

#### CONCLUSION

The ornithological assessment submitted by Invenergy relies on acknowledged incomplete survey results, It fails to carry uncertainty forward into assessment. It minimises confirmed risks identified in its own baseline evidence. It misapplies guidance to exclude relevant receptors. And it uses inappropriate spatial scaling to dilute impacts. All of these failings mean that Invenergy has not provided a sound basis for ECU consent or for proceeding with the proposed development, even with mitigation, even with *ex post facto* conditions being imposed. They do not solve the problems. Invenergy’s ornithological assessment as currently submitted must be rejected and the Application cannot be allowed to proceed.

## **CHAPTER 07 ECOLOGY**

### INTRODUCTION

Across Invenergy’s Chapter 07 Ecology and associated appendices, ecological function is repeatedly constrained to the red-line boundary of the proposed site. At the same time, Invenergy contradictorily acknowledges that protected species:

- are wide-ranging (otter, badger)
- use offsite foraging and commuting areas (red squirrel, birds), and

- rely on aquatic and riparian networks which extend well beyond the proposed development footprint

This is particularly problematic in relation to Broadlee Loch where Invenergy has received Scottish Borders Council (SBC) permission to erect a temporary (5 years) 90m anemometry mast. (See BLCG's objection to Invenergy's Chapter 2 for the unknown problems that would be associated with Invenergy's proposed intention to erect a permanent anemometry mast of 119m in height, location unspecified). Broadlee Loch is hydrologically-connected to downstream systems, is a focal aquatic and avian resource, and is functionally inseparable from surrounding terrestrial habitat.

Invenergy's reliance on "outwith the Site boundary" as justification for discounting significance is ecologically unsound and inconsistent with Chartered Institute of Ecology and Environmental Management (CIEEM) and NatureScot guidance.

The end result is flawed on multiple counts. Invenergy artificially relies on the proposed development's site boundaries rather than functional ecology. It fails to consider Broadlee Loch as a central ecological feature. It conducted seasonally and methodologically weak surveys, particularly for otters and birds. It underestimated the significance of the badger population despite evidence of an extensive sett network. Its red squirrel assessment was insufficient, especially regarding off-site (outwith the proposed site boundaries) habitat use. It over-relies on post-consent mitigation to compensate for a multitude of baseline data gaps. Taken together, these many deficiencies raise serious concerns regarding compliance with the Habitats Regulations, application of the precautionary principle, and the permissibility of any conclusion that there will be "no significant effect" as a result of the proposed development.

In the following sections of this Objection to Chapter 07 Ecology, BLCG will address each species in specific. It will then address even more particularly the issues and problems found in Technical Appendix 7.3 (fish) (TA 7.3) and Technical Appendix 7.4 (bats) (TA 7.4).

#### BADGERS (MELES MELES)

Invenergy's Protected Species Survey records twelve (12) badger setts, including five (5) well-used setts, within the proposed site boundary. This density is high for upland habitats and strongly indicates an established social group network, sustained foraging productivity, and long-term site fidelity. However, Invenergy's Ecological Impact Assessment (EIA) fails to elevate the conservation value of this population and treats impacts largely as construction-phase disturbance only.

This is inaccurate and incomplete. Badgers routinely exploit wet grassland, loch margins, and riparian corridors for invertebrates and amphibians. Invenergy has provided no assessment of badger movement routes to Broadlee Loch, no assessment of nocturnal foraging beyond the proposed site boundary, and no assessment of how access routes would be disrupted by turbines, tracks, lighting, and an anemometry mast. These omissions are critical given that badger foraging habitat loss and severance, not sett destruction alone, are often the main drivers of population decline.

Invenergy's heavy reliance in its Species Protection Plan (SPP) on pre-construction checks, micro-siting, and reactive exclusion zones as its proffered post-consent mitigation does not substitute for a robust baseline understanding, particularly where multiple well-used setts exist, as they do here.

Furthermore, in the UK, badgers and their setts are fully protected under the Protection of Badgers Act 1992. They are also protected under the Wildlife and Countryside Act 1981, the Animal Welfare Act 2006, and the Hunting Act 2004. Invenergy makes no mention of any of these.

With particular regard to the Protection of Badgers Act 1992, it is illegal, among other things, to disturb, block access to or dig in, near or around a badger sett. This legal protection extends to preventing damage through deterrence such as fencing, blasting, and heavy construction for roads / tracks. Only if a licence is granted by NatureScot – and the terms of such licences are extremely strict and require mandatory adherence – might Invenergy be allowed to "interfere" with the badgers and their setts in and outwith the proposed site boundary. Invenergy is silent on whether it has applied for such a licence or is likely to be granted any such licence. An application for such a licence requires detailed plans. Invenergy has provided nothing. In the absence of this, Invenergy cannot be allowed to assume that such a licence might be granted or that its proposed development might be permitted to go ahead.

#### OTTER (LUTRA LUTRA)

Invenergy's conclusion that otter usage is "very low" is based on three (3) spraint records made during August surveys only. This is a serious methodological weakness. Summer surveys frequently under-record otters. Sprainting intensity varies seasonally. Otter couches and holts are notoriously difficult to detect without winter surveys.

Invenergy claims that Broadlee Loch, where its temporary anemometry mast is proposed to be located and where its otherwise unspecified proposed permanent mast *might* be located (see BLCG's objection to Chapter 2 discussing the complete absence of information about the proposed permanent mast), is a site that otters will "preferentially" avoid. This is completely speculative and unsupported. Broadlee Loch is a feeding and resting waterbody, a refuge during spate conditions, and part of a wider commuting network. Leaving out Broadlee Loch from its assessment of otter presence, discussing otter presence only in relation to the River Tweed Special Area of Conservation (SAC), is irresponsible and/or careless especially given that Invenergy acknowledges there is otter mobility beyond the SAC boundaries. Omitting any assessment of Broadlee Loch discounts direct (the anemometry mast) and indirect disturbance, underplays lighting and noise effects near water, and assumes displacement would be inconsequential. Such light-handed treatment contradicts Habitats Regulations case law where functional habitat must be protected regardless of administrative boundaries.

### RED SQUIRREL (SCIURUS VULGARIS)

Red squirrels and their dreys (nests) are legally protected under the Wildlife & Countryside Act 1981. It is illegal to kill or injure red squirrels. It is also illegal to disturb them or their dreys. Protection extends to habitat management and prevention of habitat loss. Red squirrels are a priority conservation species under the NERC Act 2006. Legally binding targets to reverse species decline have been set by the Environment Act 2021.

While Invenergy correctly invokes the precautionary principle to assume red squirrel presence, it does not apply this to impact magnitude. This leads to an internally inconsistent assessment.

From its survey work, Invenergy records only one (1) drey, but in deducing this, Invenergy undertook only brief woodland inspections and conducted them outside peak detectability periods. The inadequacy of Invenergy's survey efforts is contradicted by the known local presence of red squirrels and their dreys from The Wildlife Information Centre (TWIC) records.

Red squirrels depend on stepping-stone woodland connectivity, riparian tree lines, and loch-side shelter belts. Invenergy's documents ignore off-site habitat use, do not model the displacement effects that would be caused by construction activity and turbine operation. Further, Invenergy's documents assess woodland parcels in isolation and do not consider red squirrel use of edge habitats around such water bodies as Broadlee Loch. Invenergy's conclusion that the proposed development site and its surrounding areas, including the proposed routes for abnormal indivisible loads (AILs) will not have adverse impact is not robust. It is faulty.

### AVIFAUNA AND BROADLEE LOCH

BLCG has already objected in detail to Invenergy's assessment impact on bird species in Chapter 06 Ornithology, but certain points and aspects bear repeating here with particular regard to Broadlee Loch.

Broadlee Loch is a key ecological receptor, but Invenergy has not assessed it as such. It is used by breeding and non-breeding waterfowl, passage migrants, foraging raptors, corvids, and nocturnal species (e.g. owls). Invenergy's ornithological assessment is turbine-centric and fails to address loch-based activity patterns, flight lines, or displacement effects.

Invenergy has provided no evidence that it undertook dawn/dusk vantage point surveys focused on Broadlee Loch, no wintering bird surveys specific to Broadlee Loch, and no assessment of collision risk for birds commuting between Broadlee Loch and surrounding habitats. These are major gaps given the known importance of small upland lochs as avian focal points.

Invenergy's cumulative assessment scopes out smaller developments, relies on assumed mitigation elsewhere, and does not assess cumulative pressure on mobile species using Broadlee Loch as a shared resource. This approach systematically underestimates risk, not only for birds but also for otters and wide-ranging mammals.

### BATS (TECHNICAL APPENDIX 7.3)

Invenergy relies upon TA 7.3, its Bat Survey Report, to conclude that its proposed development would present a low to medium risk to bat populations and that no significant adverse effects are likely. Unfortunately for Invenergy, TA 7.3 is methodologically flawed, internally inconsistent, and does not comply with NatureScot guidance or Conservation (Natural Habitats, &c.) Regulations. As such, it does not provide a robust or legally defensible basis upon which to lawfully conclude that the proposed development would not adversely affect bats or their favourable conservation status.

#### Inappropriate Survey Methodology

Invenergy undertook automated activity surveys using ground-level static detectors positioned at approximately two (2) metres above ground level. This approach is fundamentally inadequate for assessing collision risk for bats, particularly for high-flying, high collision risk species such as *Nyctalus* spp. and *Nathusius' pipistrelle*. NatureScot guidance explicitly recognises that ground-level detectors systematically under-record bat activity at rotor-swept height and that high collision-risk species frequently fly above the effective detection range of such equipment. Invenergy's failure to use raised detectors, vertical stratification, or nacelle-level monitoring results in a systematic underestimation of collision risk, rendering the assessment incomplete and unreliable.

#### Unjustified Reliance on Median Ecobat Values

Invenergy's assessment uses median Ecobat percentiles to characterise "typical" bat activity, while discounting maximum percentile values, despite findings evidencing that those maximum values reached the 100<sup>th</sup> percentile (High activity) for several high collision risk species at multiple locations across the proposed development site. This approach does not adhere to NatureScot guidance that peak activity periods and locations are critical indicators of collision risk and that median values can mask biologically significant spikes in activity, particularly during migration and dispersal periods. Invenergy's reliance on median values and avoidance of maximum values artificially suppresses the correct risk classifications and undermines the precautionary approach that is required under the Habitats Regulations.

#### Precautionary Principle Is Not Applied

Where Invenergy identifies assessment uncertainty, rather than applying the precautionary approach required by law, it flips this on its head and resolves the uncertainty in favour of itself. In particular, Invenergy dismisses high risk scores for *Nathusius' pipistrelle* due to low Ecobat reference ranges, rather than recognising that this should trigger further survey or

mitigation. Further, Invenergy declares that detector failures at multiple locations are “not material” without having undertaken spatially specific reassessment. Invenergy also incorrectly accepts genus-level identification of *Nyctalus* spp. despite the implications for population vulnerability assessment. Low confidence in data cannot lawfully be equated to low ecological risk. The appropriate response to acknowledged limitations is further investigation or precautionary mitigation, neither of which is present in the assessments presented here.

#### Inadequate Treatment of High Collision Risk Species

Invenergy correctly identifies *Nathusius' pipistrelle* as a high collision risk species and one of the rarest bat species in Scotland. Contradicting these identifications, Invenergy’s assessment downplays multiple Medium to High Risk scores, including fifteen (15) High overall risk scores at turbine-proximate locations and evidence of activity during migration-sensitive periods. The conclusion that impacts are unlikely is based on low absolute numbers of registrations, which is an inappropriate metric for rare, high-risk species. Even small increases in mortality will have population-level consequences.

Bat calls attributed to *Nyctalus* spp. are left at genus level rather than being resolved to species level. This is a material failing, as all *Nyctalus* species are classed as high collision risk, and species-level differences materially affect population sensitivity and conservation assessment. This lack of species specificity undermines any confidence in Invenergy’s conclusions.

#### Inadequate Scope and Assessment of Bat Roosts

Invenergy’s Bat Survey Report relies heavily on a Preliminary Roost Assessment (PRA) to conclude that roost presence is unlikely. However, the PRA is unacceptably narrow in scope and fails to properly assess buildings and dwellings located adjacent to, but outside, the proposed site boundary, despite their clear ecological relevance. Only two structures were assessed in detail. Buildings and dwellings beyond the proposed site’s red-line boundary were dismissed due to distance from proposed turbines. No moderate or high suitability roosts were identified. Bat roosts located outside the proposed site boundary can nonetheless be functionally connected to turbine locations via commuting routes, foraging corridors, and high-altitude flight paths. Excluding such buildings from meaningful assessment is ecologically unjustified.

Invenergy repeatedly relies on arbitrary distance thresholds (e.g. 200m, 1km, several kilometres) to discount the relevance of nearby buildings and dwellings as potential bat roosts. This approach is flawed because many bat species, particularly *Pipistrellus* and *Nyctalus* spp. regularly commute several kilometres between roosts and foraging areas. Collision risk, for these species, is driven by flight behaviour and height, not simply roost proximity. NatureScot guidance does not support excluding roosts from assessment solely because they fall outside a particular proposed site boundary. Distance alone cannot lawfully be used to rule out risk.

The Ecobat analysis identifies activity patterns consistent with potential nearby roosts at almost all detector locations, including activity during known emergence periods. Despite this, Invenergy conducted no targeted inspections of nearby dwellings, carried out no dusk or dawn emergence or re-entry surveys, and made no attempt to correlate acoustic emergence data with surrounding buildings. This creates clear internal contradictions. Acoustic data indicates roost proximity, while the PRA dismisses roost presence without adequate investigation. Such contradictions are not acceptable.

Residential dwellings and farm buildings in rural upland landscapes frequently support maternity roosts of Common and Soprano pipistrelles, provide transitional and satellite roosts during dispersal and migration, and are roosts for high collision risk species commuting into open upland habitats. Invenergy’s assessment work has not identified or mapped nearby dwellings, assessed their construction or roost suitability, and not considered cumulative collision risk arising from turbine placement relative to building-associated bat movements. These omissions are particularly significant given that pipistrelle species dominate recorded activity and are strongly associated with buildings.

Invenergy’s conclusions regarding roost presence are internally inconsistent despite Ecobat evidence suggesting potential roost proximity at almost all locations but limited PRA coverage of buildings and dwellings beyond the proposed site boundary. With no targeted follow-up surveys to resolve this inconsistency, any conclusion that roost presence can be discounted is unsupported by the evidence base.

#### Habitat Risk Is Misclassified

Invenergy classifies its proposed development site as having “Moderate” habitat risk, despite the presence of: multiple watercourses and lochs, woodland edges, and open upland commuting corridors. These features are known to increase bat activity and thus collision risk. Such a downgrading of habitat risk is inadequately justified. It materially reduces overall site risk scores within the NatureScot risk matrices. This is not permitted by NatureScot guidance. It also violates the precautionary principle.

#### Conclusion

Invenergy’s Bat Survey Report has failed to adequately assess bat collision risk at rotor-swept height, misapplies Ecobat data and selectively discounts high-risk results, fails to apply the precautionary principle, contains internal contradictions regarding roost presence, fails to adequately investigate buildings and dwellings adjacent to the proposed development site; and does not provide sufficient information to enable lawful decision-making under the Habitats Regulations. For these reasons, the Bat Survey Report cannot be relied upon to support a conclusion of no significant effect on bats or their favourable conservation status. Planning permission should be refused.

#### FISH (TECHNICAL APPENDIX 7.4)

Invenergy has submitted Technical Appendix 7.4 (TA 7.4), Fish Survey Report, in support of Chapter 07 Ecology generally and in support of its particular conclusion that fish are “largely absent within the [proposed] Site boundary” due to the presence of impassable barriers downstream. This conclusion is relied upon to reduce the perceived sensitivity of the watercourses that would be affected if the proposed development were to go ahead. While the Fish Survey Report provides a useful description of baseline fish populations in local watercourses, it otherwise contains significant limitations and omissions that undermine its ability to support robust conclusions on ecological impact, especially in the context of a development located within the wider River Tweed SAC and SSSI catchments. In addition, there is almost a complete lack of transparency on fish impact in relation to the proposed battery storage unit.

##### Downstream Barriers

Invenergy treats barriers as static and permanent, with no hydrological assessment of passability under varying flow conditions. Partial barriers (culverts and bridge aprons) are discussed only qualitatively. No allowance is made for inter-annual variation, climate-driven changes in spate frequency, or the possibility of episodic access by migratory fish. As a result, the report understates the potential ecological function of upstream reaches, particularly as temporary or opportunistic spawning and rearing habitats. This approach risks normalising artificial fragmentation as a justification for allowing development, rather than recognising it as an existing pressure within a protected catchment.

##### Snapshot Survey with Limited Temporal Validity

Invenergy undertook electro-fishing surveys in two (2) days in June 2024. This is a single-season snapshot. There is no multi-year dataset, no assessment of spawning success variability, and no consideration of poor versus favourable spawning years. Given the well-documented variability in salmonid recruitment, the conclusions drawn about population importance and absence of fish cannot be considered robust over the lifetime of the proposed development.

##### Downstream SAC Risk Is Insufficiently Assessed

The Fish Survey Report acknowledges that the most significant fisheries interests lie downstream of the proposed site, particularly in the Eildrig Burn and the Borthwickwater. Yet, there is no quantitative assessment of potential sediment loading during construction, no modelling of suspended solids transport to SAC-designated waters, and no assessment of duration, magnitude, or frequency of downstream effects. Instead, such impacts are repeatedly described as “unlikely” provided that “standard guidelines” are followed. This approach defers risk management to future mitigation, rather than demonstrating at Application stage that SAC integrity will not be adversely affected. This is contrary to the required application of the precautionary principle.

##### Lamprey and Eel Considerations Are Narrow and Incomplete

The Fish Survey Report infers that lampreys are absent because of a lack of fine sediment within the surveyed reaches. It does so without having undertaken targeted larval surveys, without having considered downstream sediment dependency, and without assessing whether construction could alter sediment regimes in ways detrimental to downstream lamprey habitat. Similarly, eel presence is noted but not meaningfully integrated into impact assessment, despite eels being a European-protected and declining species with high sensitivity to barriers and pollution.

##### No Transparency Regarding Battery Storage Infrastructure

While TA 7.4 briefly references “Battery Storage Facilities”, this element is not clearly described or highlighted in the main Application documentation, is not transparently integrated into the ecological impact assessments, and is treated as a secondary or ancillary component despite posing distinct environmental risks. A brief reference in regard to fish impacts is unacceptable. Battery Energy Storage Systems (BESSs) introduce significant hazards to fish populations including fire risk and contaminated runoff, chemical pollution pathways to watercourses, and long-term operational risks not addressed by construction-only mitigation. The failure to clearly and prominently disclose the planned construction and presence of a BESS on the proposed development site undermines confidence not only in the Application as a whole, because it prevents informed scrutiny by Consultees and the Public, but is also a particularly serious omission in respect of the Fish Survey Report given the proximity of watercourses draining to an SAC-designated river system.

##### Cumulative Effects Not Addressed

The Fish Survey Report assesses the proposed development in isolation. It does not consider other wind farm developments in the River Tweed catchment area, forestry operations and felling, or existing pressures on the River Tweed salmonid populations, including climate change and marine survival decline. In a highly sensitive and internationally designated river system, cumulative effects are critical. Their omission here represents a material deficiency.

##### Conclusion

While TA 7.4, the Fish Survey Report, may offer a competent descriptive baseline, it provides insufficient evidence upon which to conclude that the proposed development will not potentially dramatically and adversely affect fish populations and/or the integrity of the River Tweed SAC. The Report relies too heavily and improperly on existing barriers to downplay ecological sensitivity. It lacks temporal depth, quantitative impact assessment, and cumulative analysis. It fails

to transparently and adequately assess the implications of the proposed BESS. Consequently, the Application cannot be determined favourably.

## CONCLUSION

Invenergy has recognised and addressed the host of protected and endangered species - badgers, bats, fish, otters etc. - whose lives and habitats exist within and surrounding the proposed development site. However, its weighting of the risks of loss of habitat and loss of legally-protected, at-risk populations is flawed. In fact, it amounts to substantive failure. Even if Invenergy were to re-assess these populations fully and correctly, it would still be the case that the proposed development would cause irrevocable damage to the protected and endangered species in question and their survival would not be protected under any circumstances. The law governing protected and endangered species is binding. Re-assessment is no cure. The Application must be denied.

## **CHAPTER 08 CULTURAL HERITAGE AND ARCHAEOLOGY**

### INTRODUCTION

Chapter 8: Cultural Heritage and Archaeology, Figures 8.1–8.3, and Technical Appendices 8.1 and 8.2 of Invenergy’s Application for a proposed 13-turbine wind farm development at Mid Hill are non-compliant with national planning policy. They do not properly assess likely significant effects on the historic environment, and there are material deficiencies in both Invenergy’s methodology and its conclusions.

In this portion of BLCG’s Objection, we first highlight all the policy, law, regulatory, and guidance errors Invenergy has committed. We then provide an asset-by-asset analysis of five (5) particularly important cultural, historic, archaeological landmarks to illustrate how continuously and consistently Invenergy has misapplied, misdirected, and/or omitted addressing the applicable requirements. Of these five (5), Invenergy references only four (4). The fifth – Chisholme House and Designed Parkland Landscape – was omitted. It should not have been.

### APPLICABLE POLICIES, LAWS, REGULATIONS, AND GUIDANCE ARE MISAPPLIED / IGNORED

The policies, laws, regulations and guidance which apply to the protection of cultural heritage and archaeology assets such as are in question here are the National Planning Framework 4 (NPF4) in particular NPF4 Policy (Historic Assets and Places), Historic Environment Scotland (HES) guidance, the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (EIA 2017) with particular reference to Zones of Theoretical Visibility (ZTVs) and cumulative effects, Planning Advice Note 2/2011 (PAN 2/2011), the Historic Environment Policy for Scotland (HEPS), and evidence from the Hawick Archaeological Society. Each of these is discussed below.

#### NPF4 Policy 7

NPF4 Policy 7 requires that development proposals with potential significant impacts on historic assets be accompanied by an assessment based on a clear understanding of cultural significance, including the integrity of setting. Chapter 8 and its figures and appendices repeatedly acknowledge that there would be extensive visibility of turbines – often large numbers of blade tips – from scheduled monuments and other nationally significant assets, yet somehow deems it appropriate to conclude that there would be no significant adverse effects on setting if the proposed development were to be built. This conclusion is erroneous. Invenergy has not clearly identified which attributes of setting contribute to cultural significance, has not explained how those attributes would remain intact in the presence of large-scale, moving, industrial structures, and has not applied the policy test of integrity in a consistent or transparent manner. Invenergy’s approach reduces NPF4 Policy 7 to a procedural exercise rather than a substantive test. Invenergy’s Application is non-compliant on this ground alone.

In particular, NPF4 Policy 7(h) states that a proposed development which will affect scheduled monuments will only be supported if direct impacts are avoided, significant adverse impacts on the integrity of the setting are avoided, or exceptional circumstances are demonstrated. HES has previously advised Invenergy that there is potential for significant impacts on the settings of several scheduled monuments, expressly naming Whitcastle Hill and Todshaw Hill (SM2150). Despite this advice, Invenergy does not acknowledge that the NPF4 Policy 7(h) test is engaged, does not assess whether exceptional circumstances might exist, or demonstrate how any such exceptional circumstances, if they existed, should outweigh heritage harm. This is a material error.

#### HES Guidance

HES guidance on *Managing Change in the Historic Environment: Setting* requires assessment of setting as a multi-dimensional concept, including experiential, associative, historic, functional, and spatial relationships. HES, as statutory adviser, identified specific methodological and scope deficiencies at Invenergy’s scoping stage in 2024, including Invenergy’s mis-reliance on ZTVs, inadequate cumulative assessment, and risks to setting integrity. HES also raised concerns regarding significant negative impacts. Chapter 8 and its associated materials do not resolve HES’s concerns. All the core issues remain. Technical Appendix 8.2 explicitly excludes archaeological, historical, and associative values from consideration for assets outwith the site boundary, limiting assessment almost entirely to visibility. This approach is contrary to national guidance and unlawfully narrows the scope of assessment.

#### EIA 2017 (ZTVs and Cumulative Effects)

Invenergy's appraisal of cultural heritage assets and scheduled monuments repeatedly scopes out assets from further assessment solely because they fall outside the Zones of Theoretical Visibility (ZTVs) despite acknowledging that ZTVs are limited tools which do not indicate magnitude or significance of effect. Invenergy then proceeds to use ZTV absence as a proxy for absence of impact. This is wrong. It is patently inconsistent with EIA 2017 best practice as well as with HES guidance, particularly for assets whose significance derives from landscape relationships, routes, approaches, and cumulative views, as is precisely the case here.

Chapter 8 and its associated materials include numerous photomontages, figures showing wirelines, and figures showing ZTVs. They all clearly demonstrate extensive turbine visibility. Yet, somehow, Invenergy manages to conclude that effects are not significant, claiming instead that in the exercise of their professional judgment, turbine visibility is acceptable. It is not. Such a disconnect between evidence and conclusion undermines the credibility and robustness of the assessment. It does not meet EIA 2017 requirements for reasoned and transparent evaluation of likely significant effects.

Furthermore, cumulative effects are assessed on a piecemeal, asset-by-asset basis rather than through a landscape-scale understanding of historic environment change. There is no meaningful assessment of incremental erosion of historic landscape legibility, repeated turbine presence affecting multiple related assets (e.g. hillforts, Roman roads, linear earthworks), or the combined experiential impact of multiple wind energy developments on the historic environment.

These omissions are serious. There is a density of heritage assets within the wider study area. Technical Appendix 8.1 identifies this dense and complex archaeological baseline within and around the site. However, Invenergy then dismisses this baseline richness, not reflecting it in sensitivity ratings, magnitude assessments, or conclusions. This failure to translate baseline evidence into assessment outcomes is a structural weakness in the methodology and cannot be allowed.

#### PAN 2/2011 and HEPS

Local observation and aerial imagery demonstrate the presence of unrecorded sunken paths, routeways, and earthworks across the proposed site. These features align with known heritage assets and indicate a structured historic landscape. Failure to identify these features prior to layout design conflicts with PAN 2/2011 and HEPS, which require early understanding and avoidance before consent.

#### Hawick Archaeological Society Evidence

Evidence provided by the Hawick Archaeological Society at the scoping stage in 2024 demonstrated that significant historical and archaeological context—boundary systems, Roman communications, and defensive landscapes—was available. It has not been integrated into Invenergy's Application. The omission of this background knowledge reinforces concerns that the historic environment has not been adequately characterised and that assessment conclusions are therefore unreliable.

#### Summary

Invenergy's cultural heritage and archaeology assessment systematically under-characterises the historic environment. Invenergy's submitted materials fragment a coherent historic upland landscape into isolated assets. Assets whose significance derives equally if not more from continuity, movement, intervisibility, and experiential setting as they do from each asset in its own right are all underestimated. Invenergy has not complied with NPF4 Policy 7, has misapplied national guidance on setting, has not properly assessed likely significant effects as required by the EIA Regulations, and has materially understated both individual and cumulative impacts on nationally significant heritage assets. Invenergy has over-zealously and incorrectly relied on Zone of Theoretical Visibility (ZTV) mapping. Furthermore, HES scoping advice has not been substantively addressed. There are no mitigations Invenergy might offer which could "cure" the situation. Accordingly, the proposed Mid Hill wind farm must be refused on the grounds of unacceptable harm to the historic environment.

#### WHITCASTLE HILL AND TODSHAW HILL (SM2150)

Whitcastle Hill and Todshaw Hill comprise a complex of later prehistoric, defended settlements and associated earthworks occupying prominent upland locations. These monuments are designated as scheduled monuments because of their rarity, survival, and contribution to understanding prehistoric settlement, defence, and land use in the Scottish Borders. The significance of the monuments is inseparable from their landscape setting. Their siting offers extensive views across valleys, ridgelines, and historic routeways. This reinforces their role as expressions of control, visibility, and authority within the prehistoric landscape. Invenergy acknowledges adverse effects but concludes that integrity of setting would be preserved. This conclusion relies on magnitude terminology rather than a proper assessment of how turbine dominance would erode experiential and interpretative value, contrary to NPF4 Policy 7(h).

#### BURGH HILL FORT AND STONE CIRCLE

Burgh Hill represents a multi-period ceremonial and settlement landscape incorporating a hillfort, stone circle, and associated features. Its importance lies not in any single element but in the spatial and visual relationships between components and their placement within a wider ritual and ceremonial landscape. Invenergy treats individual elements as discrete receptors, failing to recognise that harm arises from cumulative intrusion into the landscape context that binds these elements together. This approach underestimates harm and conflicts with heritage assessment best practice.

### THE CATRAIL LINEAR EARTHWORK

The Catrail is an early medieval linear earthwork extending over many kilometres across the Scottish Borders. It is widely interpreted as a territorial boundary whose significance derives from its continuity, alignment, and role in structuring movement and political geography. The Catrail is experienced through movement along and across it rather than from static viewpoints. Its meaning lies in traversal and landscape logic, making ZTV-based assessment inherently inadequate. By fragmenting the Catrail into short sections and scoping out those with limited theoretical visibility, Invenenergy diminishes the monument's true significance and artificially reduces assessed harm, contrary to PAN 2/2011 and HEPS.

### CHISHOLME HOUSE AND DESIGNED PARKLAND LANDSCAPE

Chisholme House (Grade B listed) and its Designed Parkland Landscape represent a rare, illustrative example of the "Nabob" phenomenon—a physical manifestation of the colonial "sugar" wealth of the late 18<sup>th</sup> century in Scotland and its role in shaping the Scottish Borders landscape. The historical value of this asset, particularly its rare and tangible link to the 'Legacies of British Slavery', ties Chisholme House to the complexities of Scotland's global history. This provides a level of social and illustrative significance that warrants high protection in the public interest.

There is also the intellectual and historical experience of the site as a place of seclusion and "Nabob" self-presentation which is amplified by the current use of the site as a place for contemplative retreat. Chisholme House and its principal vistas cannot be allowed to be dominated by turbines. The heritage harm would be permanent and qualitative and cannot be 'offset' by the quantitative energy contribution of the proposed turbines.

Under Schedule 9 of Section 36 of the Electricity Act 1989 (S36), Invenenergy has a statutory duty to "have regard to the desirability of ... protecting buildings and objects of architectural, historic or archaeological interest." Section 57 of the Town and Country Planning (Scotland) Act 1997 and Section 59 of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 further require that "special regard" be given to the desirability of preserving the building and its setting.

Invenenergy's Application fails to fulfil these statutory duties. There is demonstrable "moderate to high" adverse impact, and there is no mitigation. NPF4 Policy 7(c) states that development proposals that would have an adverse impact on the character, integrity, or setting of a listed building should not be supported. Invenenergy's own assessment demonstrates that Turbines 12 and 13 directly and fundamentally disrupt the primary, intentionally contrived vista that defines the setting of this Grade B listed building.

Furthermore, while the Chisholme Designed Landscape is non-designated, NPF4 Policy 7(o) protects non-designated historic environment assets. The landscape's "High Quality" status (PMA 2008) and its intact 1795 building and garden landscape layout make it a significant component of the local historic environment. The introduction of 200m turbines into this "picturesque" landscape designed for enclosure and seclusion would represent a direct conflict with the policy intent to protect the integrity of such sites.

### CHISHOLME HOUSE NATURAL BURIAL GROUND

Chisholme House Natural Burial Ground is an active place of burial, remembrance, and reflection. Its significance lies in tranquillity, seclusion, and the absence of industrial features. The introduction of large-scale turbines would fundamentally alter the experiential character of the burial ground through visual intrusion, movement, and noise, undermining its purpose and cultural meaning.

### CONCLUSION

It is patently clear that Invenenergy's Application with regard to cultural heritage and archaeology is inadequate. It does not meet the requirements of national policy, statutory guidance, or EIA Regulations. The historic environment has not been adequately characterised, cumulative impacts have not been robustly assessed, and the integrity of the settings of nationally important heritage assets has not been protected. There is no "cure" Invenenergy can offer to provide any such protection even if it were to re-conduct its (currently) highly inaccurate and incomplete assessments. The legally required balancing of harms and benefits does not allow this. In these circumstances, it cannot lawfully be concluded that all likely significant effects have been identified and assessed. Consent must be refused.

## **CHAPTER 09 TRAFFIC AND TRANSPORT**

### INTRODUCTION

Invenenergy's proposal and approach to Traffic and Transport including Abnormal Loads as contained in Chapter 09 Traffic and Transport, Technical Appendices (TA) 9.1 Parts 1-4, and TA Parts 1-3 does not demonstrate deliverability, does not assess the impacts of required mitigation works, unlawfully relies on the deferral of essential information, poses unresolved safety risks, and does not comply with applicable policies, laws, regulations and safety standards. Invenenergy's Application cannot be approved on the basis of Traffic and Transport inadequacies alone, and any *ex post facto* imposition of planning conditions does not cure its inadequacies.

First, Invenenergy admits deliverability is not demonstrated! An application cannot be approved on the basis that the project *might* be deliverable. Deliverability (structural capacity, third-party land, access permissions, route viability, consultee responses, road safety, road traffic management, police capacity, emergency access) is a material consideration. Chapter 9 and its appendices also rely on speculation, deferring essential works to the future (test runs, topographical surveys, structural assessments, road widening, bridge and culvert work, drainage modifications, tree clearance), and assume

third-party cooperation and permission (land negotiations, statutory approvals). A development proposal must be assessed on definite not aspirational outcomes. Deferral is not permitted.

Second, harms remain undefined, deferred, fragmented, and unquantified. It is not possible to weigh what has not been assessed; and these defects cannot be cured by the imposition of *ex post facto* planning conditions.

Third, the submitted documents contradict themselves, use undefined standards, repeatedly redefine “feasible”, suppress the scale of works, and oscillate between route options. There is no decision-worthy evidence upon which a planning decision could be made.

Invenergy’s Application should be refused in its entirety. Chapter 9, TA 9.1 and TA 9.2 are ample grounds alone, without more.

### LEGAL DEFECTS

Invenergy’s Application as to Traffic and Transport is legally defective. The oversights are not technical. They are structural legal failures.

A host of legal, regulatory, and policy frameworks govern the assessment of Invenergy’s Chapter 9 and associated technical appendices. They include: Town and Country Planning (Scotland) Act 1997, Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (EIA Regulations), NPF4 (National Planning Framework 4), Roads (Scotland) Act 1984, Road Traffic Regulation Act 1984, Road Traffic Act 1988, New Roads and Street Works Act 1991, Road Vehicles (Construction and Use) Regulations 1986, Road Vehicles (Authorised Weight) Regulations 1998, Special Types General Order (STGO), Special Order regime (National Highways / Transport Scotland), DMRB (GG 104, GG 142, CD 195, etc.), Transport Scotland guidance, CIHT guidance on rural roads, IEMA EIA guidance, Nature Conservation (Scotland) Act 2004, Water Environment (Controlled Activities) (Scotland) Regulations, and Wildlife and Countryside Act 1981.

To start, Invenergy hasn’t identified that all of these apply. Those it has applied, it has applied inconsistently and/or incorrectly. Invenergy even acknowledges legal gaps when it states such things as, “*The detailed assessment and subsequent designs of any remedial works are beyond the agreed scope of works*”. The EIA Regulations do not permit deferment by claiming something is “beyond scope.” If remedial works are required to make a project possible, they must be assessed.

TA 9.2 describes the Special Order and STGO regimes but then does not apply them and/or does not treat them as binding. Instead, Invenergy treats them as conditional requirements, to be tested later, subject to future design, and subject to turbine supplier discretion. This is unlawful in principle. If a route is not currently compliant, the Application must specify the works required and assess their impacts. It cannot simply assume that all remedial works will be permitted.

Throughout the Chapter 9 drawings and annotations, mitigation is repeatedly stated as being “subject to confirmation through a test run”, “indicative”, “not a construction drawing”, and/or “mitigation to be confirmed on a topographical base survey”. The phrase “test run” in particular appears repeatedly. Test runs are operational checks. Using them as a substitute for design mitigation is a category error. The EIA Regulations do not permit reliance on mitigation to render impacts acceptable unless that mitigation is defined, assessed, and enforceable. Invenergy’s caveats are not mitigation. They are avoidance of the legal requirement.

Another phrase appearing repeatedly is “upgraded to turbine manufacturer standards”. “Standards” is not defined. An undefined standard cannot be assessed and thus is insufficient. No specifications are given. No envelope is described. No safety margins are stated. This renders it legally meaningless, and prevents the required impact assessment, enforcement, conditioning, and public scrutiny from happening. TA 9.2 further states that, “*It is the responsibility of the turbine supplier to ensure that the entirety of the proposed access route is suitable*”. This is legally impermissible in a planning context. Planning authorities must determine whether a proposal is acceptable in land-use terms, whether its impacts are tolerable, and whether it is deliverable. Responsibility cannot be outsourced to a privately contracted supplier. Claiming so constitutes an improper abdication of responsibility.

Perhaps in an attempt to address this, TA 9.2 also contains a sweeping disclaimer purporting to exclude third-party reliance: “*Any liability to any third-party... is hereby expressly excluded...*”. This is legally irrelevant in a planning and EIA context. Environmental information must be public, reliable, capable of scrutiny, and determinative. A developer cannot disclaim the legal consequences of submitting inadequate evidence.

Finally, TA 9.2 admits that “*Responses had not been received from Amey, Renfrewshire Council and BEAR... therefore, the routes have not been confirmed as structurally capable*”. Invenergy has filed its Application in the face of this fatal flaw. If structural capacity is unconfirmed, then feasibility is unproven, the scale of mitigation is unknown, environmental impacts are unknown, and cost and land take are unknown. The Application is incomplete and cannot proceed.

The scale of change is systematically understated. Drawings repeatedly show such things as carriageway widening (e.g. some forest tracks to be widened to 4.5m / 15 feet), land reprofiling, culvert replacement, bridge upgrades, vegetation clearance, utility pole removals, embankment oversailing, parapet removal, and cattle grid reinforcement. These are not minor, temporary, or (easily, if at all) reversible. They are major, landscape-altering interventions. Yet Chapter 9 treats such transport impacts as manageable, reversible, and limited and the proposed, consequent landscape alterations as marginal. These are gross mischaracterisations, and they cannot lawfully support a planning decision.

Under the EIA Regulations, an applicant’s Environmental Impact Statement (EIS) must identify the likely significant effects of the proposed development, assess those effects on a worst-case basis, and describe mitigation measures with sufficient specificity such that the responsible regulatory authorities are able to reach a reasoned conclusion. Invenergy’s Chapter 9 fails on all these grounds. It defers mitigation, provides no baseline, fails to assess cumulative effects, uses salami-

slicing to hide cumulative effects, suppresses the significance of the proposed changes, and masks a wide range of uncertainties.

Across the TA 9.1 drawings and TA 9.2 reports, mitigation is repeatedly left undefined, indicative, conditional, subject to future survey, subject to future test run. This renders these materials legally flawed. The EIA Regulations do not permit “assess now, design later” or “approve now, mitigate later” or “trust us, it will be fine”. Where mitigation is necessary – as the Applicant says it is here – then it must be defined, assessed, enforceable, and certain. Chapter 9 and its associated technical appendices meet none of these criteria.

Where drawings show road widening, bridge upgrades, culvert reconstruction, vegetation clearance, fence / wall / parapet removal, utility pole removals, HV OHL diversions, drain in-filling, and embankment oversailing, the magnitude of impact is systematically masked. None of them are meaningfully assessed for landscape effects, visual effects, hydrology, carbon loss, habitat fragmentation, biodiversity impacts, peat disturbance, runoff changes, or sediment mobilisation. Instead, they are reduced to mere annotations on drawings. This does not meet the required environmental assessment standard. Further, and far worse, Invenergy has undertaken no peat or peatland assessment along the proposed route(s) as required by applicable law, policy, and guidance. See, BLCG’s objection to Chapter 11.

And all this vagueness stands on *no* defined baseline. Under EIA Regulations, a baseline must describe existing road widths, verge profiles, embankments, vegetation extents, drainage systems, structures, ecological value, and land ownership. In TA 9.2, Invenergy declares “Land searches and topographical survey [are] recommended...”. In other words, Invenergy has provided no baseline. Therefore, impact of the proposed changes cannot be known and mitigation cannot be defined.

Whilst Chapter 9 may claim to assess the worst-case turbine configuration, it does not assess worst-case *infrastructure consequences*. This is required. Worst case means maximum road widening, maximum cut/fill, maximum tree loss, maximum land take, maximum structure replacement, and maximum third-party land intrusion. Invenergy has quantified none of these. Instead, it avoids them by deferring design. This is legally impermissible.

The cumulative effects of Invenergy’s proposed changes as set out in Chapter 9 and its technical appendices are hidden by that very document structure. To the extent effects are addressed, they are split across the Chapter 9 text, the drawings in TA 9.1 and the route survey(s) of TA 9.2. In no single place is there an assessment of the totality of physical works proposed, their cumulative landscape effects, their overall footprint, or their combined ecological consequences. This is salami-slicing and renders the documents in question defective. Each document alone purports to present the proposed changes as manageable whilst obscuring that together they are transformative. As one small example of the hiding of cumulative effects through salami-slicing, it is stated that “*Eskdalemuir Timber Haulage Route to be closed to other traffic for duration of deliveries.*” The closure of a rural route affects livelihoods, emergency response, accessibility, and safety. Yet none of these are assessed.

#### UNPROVEN FEASIBILITY AND NO ANALYSIS OF ALTERNATIVES

TA 9.2 argues that once [something, anything] is “*assessed, approved and undertaken, access to the site is considered feasible*”. This is putting the cart before the horse. All necessary assessments must be undertaken and presented before feasibility can be considered. Assessment requires evidence, analysis, and demonstration. Anything else is merely aspiration. But because a great deal of what Invenergy has done in Chapter 9 is defer assessment until after planning permission is granted, this is exactly all it has evidenced – an aspiration. This is not how it works. Not only must Invenergy conduct all necessary assessments beforehand, the EIA Regulations require that reasonable alternatives also be thoroughly assessed. Whilst the Chapter 9 documents do mention two routes, they also reject some sections of both routes, which is a feasibility problem in and of itself. Even if this weren’t the case, the Chapter 9 documents still fail to compare the environmental impacts of the two indicated routes, compare their land take, compare their structural interventions, compare their habitat damage. Invenergy’s sole focus is geometry. This is legally inadequate for determining the sufficiency of alternatives.

Moreover, TA 9.2 states that Invenergy will “*obtain the necessary statutory licences*”. It cannot assume that all necessary licences will be granted. And it certainly cannot use this assumption to justify planning approval. This is once again cart before the horse. Until the environmental effects of all required licences are assessed, feasibility is not shown.

The Chapter 9 drawings depress the scale of the traffic and transport works involved in the proposed development. No transport-related effects are identified as major, significant, or adverse. Yet even a moment’s consideration makes it obvious that the scale of works is massive. With such under-description, combined with the aforementioned deferral of just about every assessment, feasibility has not been demonstrated. Invenergy’s Application must be denied.

#### MISAPPLICATION OF ABNORMAL LOAD LAW

Invenergy’s abnormal load assessment is also legally defective. Abnormal Indivisible Load (AIL) movements in Scotland are governed by Road Vehicles (Construction and Use) Regulations 1986 (C&U), Road Vehicles (Authorised Weight) Regulations 1998, Special Types General Order (STGO), Special Order regime (National Highways / Transport Scotland), Roads (Scotland) Act 1984, and Road Traffic Regulation Act 1984. These laws and regulations are determinative, not advisory. Compliance is not optional.

Invenergy correctly summarises certain of the applicable laws and regulations in TA 9.2, stating that “*Items which... exceed the weights encompassed by the C&U Regulations... are governed by Special Types General Order (STGO) Categories 1 to 3*”, that “*Where dimensions exceed 6,100mm in width, 30,000mm in rigid length or 150 tonnes gross weight, Special Order from NH is required*”, and that “*Due to the transport configurations being classified as Special Order... full Police Escort will be required*”. Invenergy clearly understands that the loads it is proposing are legally exceptional. Despite

this, TA 9.2 proceeds as though route geometry is the only constraint, as if structural adequacy can be checked later, as if traffic regulation can be improvised, and as if land can be assumed. This is a clear ignoring / avoidance of applicable law.

STGO compliance requires notifying authorities, adhering to reduced speed limits, planning routes, and displaying appropriate signage/plates, with different categories (Cat 1, 2, 3) based on weight and dimensions, requiring varying notice periods (2 to 5 days) for authorities and potentially police escorts to ensure road safety and protect infrastructure. STGO is not a design aspiration. It is a legal permission framework. Contrary to this, Invenergy's Chapter 9 documents repeatedly claim "*feasible with works*", and "*to be confirmed*". If a deliverable transport route does not currently exist – as it does not here – then the specific works to make a route deliverable must be identified, impacts assessed, and legality demonstrated. This has not been done.

TA 9.2 admits that "*The routes have not been confirmed as structurally capable of accommodating the AILs*". It further admits that multiple structures require further assessment, including "*Structure no's C81A/40 Paddockhole, B709/10 Carlsgill, C78A/20 Burnfoot and C78A/10 Douglincleuch*". Drawings repeatedly note "*Structural assessment required*". Under STGO, AILs cannot cross structures that have not been proven to be able to carry them safely. Proof of this must exist *before* a route is considered viable. This is legally critical, and Invenergy has not satisfied the requirement.

The drawings include statements, unlawful in their current form, such as "*Garwaldwater bridge to be upgraded to turbine manufacturer standards*". What standards? No standards are defined. No consent is demonstrated. No engineering envelope is provided. No environmental impact is assessed. Bridge upgrades require owner consent, engineering design, temporary works approval, all material planning permission(s), and CAR licences if a watercourse is affected – as it would be in the case of Garwaldwater (a Controlled Activity Regulations (CAR) licence is required in Scotland for activities that could pose a risk to the water environment, such as engineering / construction in or near watercourses. CAR licences and requirements are managed by the Scottish Environment Protection Agency (SEPA)).

TA 9.2 acknowledges that "*Where an application is sought for the movement of a Special Order ... NH and Transport Scotland will turn down the application where it is feasible for a coastal or inland waterway route to be used instead of road*". This policy is binding. As Invenergy has shown no non-feasibility of a coastal or inland waterway route, the Application is legally inadequate on this point.

The Chapter 9 documents state that "*Full Police Escort will be required along the length of all routes*" but provide no assessment of operational disruption, duration of closures, emergency access implications, availability of Police Scotland resources, or cumulative convoy effects. Police escorts are not a trivial matter. They divert public resources, disrupt communities, and restrict access. Such effects are not neutral and must be assessed. They have not been assessed here.

TA 9.2 states that the Eskdalemuir Timber Haulage Route (ETHR) "*is to be closed to other traffic for the duration of deliveries*". Road closures require TTROs, statutory consultation, objection handling, justification tests, and emergency access planning. All of these are missing. Invenergy takes road closures as a given. They are not.

Chapter 9 and its technical appendices repeatedly conflate swept path geometry with legal viability. A swept path model only shows physical clearance. It does not show structural capacity, drainage resilience, land ownership, legal powers, or safety compliance. Invenergy treats swept path as determinative. It isn't.

Similarly, drawings repeatedly omit full assessment of the projected oversailing impacts. They note "*blade tip to oversail embankment*", "*loads to oversail bridge parapet*", and/or "*vegetation to be oversailed*". But oversailing means load eccentricity, edge loading, reduced safety margins, and increased failure consequences. Yet no structural modelling is presented, no residual risk is assessed, and no fall hazard assessment has been provided. Oversailing also implies airspace intrusion, structural edge loading, public safety risk, and vegetation damage. None of this is assessed.

Again, and with similar failure, Invenergy gives numerous instances of "*cattle grid to be reinforced*" and "*drain to be covered over*" without any assessment of hydrology alterations, impacts on livestock containment, or land management effects. These are not trivial and must also be assessed. They have not been.

The Special Order regime requires that feasibility be demonstrated *before* planning consent. It is a Special Order consent which demonstrates the project is deliverable. If Special Order is refused it means the project is undeliverable. Invenergy has not applied for or obtained Special Order consent. Without it, the Application cannot be considered further.

## ENGINEERING AND STRUCTURAL FAILURES

Invenergy's Application is fundamentally defective the route has not been shown to exist in engineering reality. Invenergy's Chapter 9 documents reveal that structural capacity is unknown, bridge interventions are undefined, drainage impacts are ignored, slope stability is unexamined, temporary works are invisible, widening impacts are suppressed, and failure modes are unaddressed. The route has not been shown to exist in engineering reality.

For abnormal load routes, engineering feasibility is a legal gatekeeper. No regulatory authority can lawfully conclude a route is viable unless structural capacity is demonstrated, ground conditions are known, drainage effects have been assessed, temporary and permanent works have been defined, failure modes have been considered, and residual risks have been evaluated. None of this has been done.

Instead, TA 9.2 explicitly states that "*The routes have not been confirmed as structurally capable of accommodating the AILs*" then lists specific structures requiring further assessment, e.g. "*Structure no's C81A/40 Paddockhole, B709/10 Carlsgill, C78A/20 Burnfoot and C78A/10 Douglincleuch*". Then, the drawings repeatedly annotate this same requirement for structural assessment. What this means is that the viability of the proposed route(s) is actually unknown.

Bridges are regulated assets, are owned by identifiable bodies, and are subject to safety standards and statutory controls. Invenergy cannot assume they can or will be upgraded to meet the requirements of its development proposal.

Invenery must *show* this including existing versus required capacity, strengthening method, foundation implications, watercourse impacts, flood risk changes, construction impacts, and owner permission. It has done none of these. So too with culverts, drains, and hydrology. Invenery provides no assessment of runoff changes, peak flow changes, blockage risk, scour, or flood conveyance in direct breach of CAR regulations, flood risk policy, and sustainable drainage principles. And again with embankments and slopes. Invenery treats them as non-structural, but embankments are structural and load-bearing. Oversailing and re-profiling can reduce slope stability, increase erosion, change load paths, and increase landslip risk. Invenery provides no assessment of slope stability, no geotechnical parameters, and calculates no safety factors. This could be said to amount to engineering malpractice in a route feasibility context.

Temporary works will be necessary (obviously), such as temporary load-bearing surfaces, temporary widening, and temporary removals, but nothing is specified in this regard even though temporary works will disturb soils, require excavation, affect roots, affect drainage, and leave legacies.

The proposed track widenings (ETHR etc.) are huge interventions in a rural environment. Invenery has provided no assessment of excavation volumes, spoil disposal, vegetation loss, habitat severance, visual change, or peat disturbance.

Reinforcing cattle grids and/or removing sections of fence alter livestock control, affect land management, create biosecurity issues, and require landowner consent. None of this has been addressed.

An EIA transport assessment must address what happens if a vehicle breaks down, a structure fails, there is severe weather, emergency access is needed. Invenery is assuming perfect execution. This is not lawful. There will not be perfect execution. Such a thing is impossible. An assumption of perfect execution in neither common sensical nor logical.

The construction of any of the proposed access route(s) – ignoring for the moment their admitted infeasibility – is invisible in Chapter 9. There is no assessment of plant, excavation, HGV movement, temporary closures, or compound areas. To the extent temporary construction areas are referred to in other chapters, they should be referred to here. But in those other chapters, the temporary construction areas are confined to those necessary for the installation of the turbine towers, turbine blades and so on. There is no mention of the temporary construction areas that will be required for the construction route(s) themselves.

TA 9.2 assumes feasibility. “If undertaken, it is feasible.” This is a false binary. Feasibility must be demonstrated. It has not been.

#### LAND AND RIGHTS FAILURES

A planning authority must be satisfied that a proposed development is capable of being delivered. This does not require absolute certainty, but it *does* require a realistic prospect of implementation, no fundamental legal impediments, and no reliance on speculative third-party permissions or cooperation. In the case of Invenery’s Application, all three are in play for Traffic and Transport. The proposed scheme is legally undeliverable on its own evidence.

The drawings in TA 9.1 repeatedly state that third-party land is required and/or that third-party access permission is required. But TA 9.2 states that Pell Frishman (PF), authors of the Abnormal Indivisible Load Route Survey, on behalf of Invenery, accepts no responsibility for the accuracy of land ownership assumptions. This is legally and operationally fatal. If land ownership is uncertain, based on nothing but potentially incorrect assumptions, then works cannot actually be designed, impacts cannot actually be assessed, rights cannot actually be assumed, and therefore deliverability cannot be the conclusion. As part of its Application, Invenery has not submitted title plans, cadastral mapping, land registry extracts, servitude analyses, access rights assessments, status of negotiations, or evidence of option agreements. It is backward to state that land searches and topographical surveys are “recommended”. Before a proposed development can be assessed, one must know whose land one is on, what rights exist, and what restrictions apply. None of that is present.

With the assertion that third-party land is required, either landowners have agreed or Invenery has compulsory powers. As a private company, the latter is unlikely. Therefore, if landowners have agreed, then the Application contains no evidence of it. And if even one landowner has not yet agreed, then all route proposals must be deemed null and void. This uncertainty alone defeats any current showing of deliverability. Especially as no fallback alternative routes, no alternative designs, no fallback strategies are offered. As currently scoped, described, and evidenced, the Mid Hill wind farm proposal is a single-point-of-failure scheme.

And this may only appertain to private landowners. There is the further issue of public landowners such as the Highway Authority and the Forestry Commission. Chapter 9 drawings show reprofiling, widening, and clearance of public highways outside of adopted boundaries and of forestry tracks, and TA 9.2 admits the uncertainty of achieving this. Even if Invenery were able to evidence public authority permission, those public authorities cannot proceed without following their own statutory procedures including objection processes and the awarding of compensation. Invenery’s Chapter 9 addresses none of these issues though they are matters of contractual reality.

And, because land ownership is unevidenced, area of land take, ecological loss, landscape change, and carbon release are also unknown. Missing core EIA metrics must be provided before the Application can be considered.

#### PUBLIC SAFETY AND HIGHWAY LAW FAILURES

The Chapter 9 documents repeatedly defer responsibility to the turbine supplier, future design, and/or future agreements. These are not technical oversights or omissions. They are public law failures. They are not how public safety law works. Responsibility must be defined.

Under UK and Scottish law, the highway is a public asset. Its use is governed by the Road Traffic Regulation Act 1984, the Roads (Scotland) Act 1984, the Road Traffic Act 1988, common law duties of care, and Police Scotland operational

protocols. Any proposal that closes roads, restricts access, introduces abnormal hazards, alters geometry, and/or removes safety features must be justified, assessed, and lawfully authorised. None of that is demonstrated here.

For example, Invenergy treats road closures as a given. They are not. Repeated annotations on the drawings that “Route to be closed to other traffic for duration of deliveries” does not mean that closure will be permitted or can occur. Road closures require TTROs, statutory consultation, emergency service approval, public notice, objection handling, and proportionality tests. None of this is mentioned. None of this has been evidenced.

There is no assessment presented of how long closures will last, how often, over what period (“for duration of deliveries” is far too vague), at what times of day. For an abnormal load, closure could last hours per movement, require multiple days per turbine or turbine blade. And they would be repeated events. For the 13 turbines proposed, that is 39 blades. That is 39 potential road closures. None of these has been evidenced as possible, let alone consented.

By way of further example, the need for emergency access (ambulance, fire, police response, mountain rescue, veterinary emergency) during road closure(s) is not mentioned, let alone assessed. Closures of single track rural routes, even if of short duration, can be life threatening. These are material safety considerations, and they are unaddressed in Chapter 9 or its technical appendices.

TA 9.2 states that “Full police escort will be required along the length of all routes”. This is not trivial. Police escorts consume public resources, require scheduling, compete with emergencies, and can be refused. There is no evidence in Invenergy’s Application that Police Scotland has been consulted, has agreed, or has capacity. To assume police escort is available is not lawful.

Even if the swept path modelling is correct / acceptable, it is not by itself sufficient to demonstrate road safety. It does not address human behaviour, reaction times, sightlines, escape routes, cyclists, pedestrians, livestock, or horse riders.

The drawings show sign removal, bollard removal, parapet removal, fence removal, and wall removal. These are safety-critical features on all UK roads, yet Invenergy has provided no assessment of residual risk, liability exposure, or temporary protection(s) in their place or the replacement standards for these.

Oversailing is a potential public hazard and is a threat to public safety. No hazard analysis is provided. No safety zones are provided. No public exclusion zones are assessed.

Proposed route(s) include forestry haul roads, rural access tracks, farm accesses, and estate tracks. Closures on these will affect livestock movement, timber extraction, farm operations, and local residents going about their daily business including going to and from work, transporting children to and from school. None of these are assessed.

A safety impact assessment and a management assessment for construction traffic (HGV movements, excavation plant, crane operations, material deliveries) are both missing.

Where works are specified as temporary, there is no mention of what temporary barriers, warning systems, lighting, marshals, speed control(s) would be put in place. Their absence is a further failure of public safety and highway standards.

#### EVIDENCE, AS SUBMITTED, IS INCONSISTENT AND UNRELIABLE

For evidence to be legally and procedurally usable in a planning decision, it must be internally consistent, methodologically transparent, logically coherent, based on stable assumptions, and capable of scrutiny. If a body of evidence contradicts itself, it is not merely weak — it is unsafe. That is the case here.

Some drawings explicitly state: “NO MITIGATION REQUIRED” while adjacent drawings for the same route show carriageway widening, land re-profiling, load-bearing surfaces, tree removal, culvert upgrades, sign removal, closures. These discrepancies render both types of drawings incoherent and unreliable. One is forced to ask, “Which is it then, mitigation or no mitigation?” Planning decisions cannot be made on the basis of such internal documentary contradiction.

Ignoring the logical fallacy previously pointed out, TA 9.2 repeatedly asserts feasibility: “If these are assessed, approved and undertaken, access to the site is considered feasible”. Yet it also states “Route 2 is not currently considered negotiable” and “Routes have not been confirmed as structurally capable”. The first statement cannot be true if the latter two are true. And vice versa. They are incompatible with each other. Most significantly, feasibility cannot even be claimed let alone demonstrated where it is simultaneously claimed that routes are not negotiable and/or not structurally capable. Further, for structural capability to be treated as “needing further assessment”, “to be confirmed”, “not received yet”, when structural failure could be catastrophic is yet further evidence that Invenergy’s documents cannot be relied upon.

In the Chapter 9 documents, sometimes Route 1 is stated to be preferred, sometimes Route 2. Sometimes Route 2 is described as unviable. Sometimes a trailer interchange (to move blades onto a blade lifter trailer) is stated to be required. Sometimes, route splitting is stated to be required. This is not some sort of alternatives assessment. It is that Invenergy doesn’t actually know what route is going to be possible, if any.

And, regarding the need for trailer interchanges, this is not a mere detail. Trailer interchanges require their own operational site, land, hardstanding, lighting, safety controls, and access. But Invenergy treats them as a footnote. Deeming them worthy only of a footnote when they are nothing of the sort argues once again for the unreliability of the information Invenergy presents in Chapter 9 and its associated appendices.

#### EVIDENCE FAILURES ARE LEGALLY FATAL (NOT CURABLE BY CONDITION)

Any planning permission must be based on sufficient information to reach a reasoned conclusion on the likely significant effects of a proposed development. Where deficiencies relate, as they do here, to feasibility, deliverability, safety, land control, structural integrity, and legal compliance, they are not details; they are determinative. Further, such problems cannot be dealt with by conditions. Here, that is precisely what the proposed development seems to be seeking, but to allow

that would be to fall into the Grampian condition fallacy. Yes, a Grampian condition can facilitate a granting of planning permission by prohibiting a developer from actually proceeding until, for example, all necessary infrastructure and licencing is in place. They are conditions in the negative. However, such conditions would be flawed, i.e. fallacious, in this case because it has not been shown that all such necessary pre-work (provisioning for police escorts, road closures, land use, highway safety, emergency access, and so on) is possible let alone likely. Here, conditions would need to be used to create missing assessments, fill in absent baselines, invent alternatives, define undefined mitigation, cure fundamental uncertainty, transfer decision-making to third parties. This would not be a lawful use of conditions.

EIA law requires that a planning authority has all the environmental information it needs *before* a decision is made. Here, mitigation is undefined, baselines are unknown, alternatives are unassessed, cumulative impacts are suppressed, required physical works are hidden, there is no safety strategy, necessary legal permissions are missing. And the list goes on. None of these are technical breaches or minor omissions. They are legally fatal. They cannot be “clarified later” or cured by conditions.

### TURBINE BLADE LIFESPAN

It is well-established in the wind power industry that average blade life span is no more than 20 years. In Chapter 9 and its appendices, Invenergy has provided no information, no plans, no assessment of how it will replace turbine blades at the end of their useful life even though there is the likely need to replace thirty-nine (39) blades at least once (if not more than once) during the 40-year operational life of the proposed development. How will the required roads and tracks be kept in good enough repair? No answer. How will they carry those abnormal indivisible loads 20 years (more or less) after the first time? No answer. Will the old blades be disposed of on-site, creating a permanent eyesore of material that never degrades and cannot be recycled? No answer. Will the old blades be removed from the site? No answer. How? No answer.

Invenergy is utterly silent. Yet these are critical questions and must be answered. Invenergy’s Application cannot proceed.

### CONCLUSION

Invenergy admits that the proposed project is not feasible on traffic route grounds. Non-feasibility demands an outright denial of permission to proceed further. This is a matter of legal failure. For this and all the reasons stated above, BLCG objects to Invenergy’s Chapter 9 on Traffic and Transport and requests that Invenergy’s Application be denied.

## **CHAPTER 10 NOISE AND VIBRATION**

### INTRODUCTION

There are multiple, substantive regulatory, methodological, evidential adequacy, policy, and case law flaws contained in Invenergy’s Chapter 10: Noise and Vibration which, when fully and properly assessed against national (UK, Scotland) and local (Scottish Borders Council) policies, recognised noise standards, and Environmental Impact Assessment (EIA) best practice demonstrate that Invenergy’s Application must be denied. These many flaws go directly to soundness, compliance, and adequacy for decision-making. The significance of EIA compliance is improperly defined. The application of ETSU-R-97 is treated as policy, not as the guidance it is. The methodology for background noise is weak. Construction noise is undermodelled. Vibration is inadequately scoped. Assessment and mitigation of cumulative effects is largely absent. The policy tests of NPPF are not met. There is insufficient transparency. In short, the adverse impacts of the proposal are not outweighed by its claimed benefits. Harms have not been properly assessed, policy safeguards for health and amenity are not met, and uncertainty has been unlawfully deferred. The planning balance favours denial.

What follows is a regulation-by-regulation critique of failings, identifying where Chapter 10 and its associated figures, appendices, etc. do not meet the applicable regulatory requirements, methodological, evidential and policy standards, applicable and binding case law, and industry best practice. The pertinent regulations, etc., in descending order from national to local, are: UK Assessment and Rating of Noise from Wind Farms (ETSU-R-97), UK Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (EIA), UK National Planning Policy Framework (NPPF), Chapter 15, paragraphs 185-187, Scotland National Policy Framework 4 (NPF4), Scottish Borders Council Local Development Plan, Policies PD9 and HD3, and BS 5228.

### UK ASSESSMENT AND RATING OF NOISE FROM WIND FARMS (ETSU-R-97)

Current guidance for the assessment of noise from onshore wind turbines across the UK is ETSU-R-97. It was published as guidance in 1996 and has not been updated since. It is thirty years behind today’s technology. This has been acknowledged by the UK and Scottish governments which issued a draft of updated technical guidance in July 2025, <https://www.gov.uk/government/consultations/assessment-and-rating-of-wind-turbine-noise-guidance-proposed-updates/draft-updated-guidance-assessment-and-rating-of-wind-turbine-noise-accessible-webpage>. Publication of the final updated guidance is imminent, <https://www.gov.uk/government/consultations/assessment-and-rating-of-wind-turbine-noise-guidance-proposed-updates/updated-guidance-for-the-assessment-and-rating-of-wind-turbine-noise-consultation-document-accessible-webpage>. However, until such time as that updated guidance is finalised and comes into force, ETSU-R-97 stands as written.

That said, as Invenergy claims to be proposing only that which – according to them – is overall net positive for the UK and Scotland nationally, for the Scottish Borders regionally, and for the Borthwickwater Valley locally, its Chapter 10 should

have reflected the significant, major advancements in wind turbine technology which have occurred since 1996. For instance, the onshore wind turbines and blades manufactured and available in 1996 had a maximum blade tip height of somewhere in the region of 80-90 metres. Whilst ETSU-R-97 might have provided adequate noise and vibration guidance for these blade tip heights, it is woefully inadequate for the assessment of the more-than-double blade tip heights Invenergy is proposing, 200 metres. For Invenergy to claim “good citizen” status, as it seems to want to do, it should have addressed any and all pending guidance updates to ETSU-R-97 and all available scholarship and research on the impacts of noise and vibration rather than exploiting ETSU-R-97’s noise guidance for the much smaller turbines of 1996. Moreover, Invenergy’s failure to recognise that by the time of proposed construction in 2031, the updated guidance will be in force. Invenergy should have applied the updated draft guidance as a gesture of good faith, reasonableness, and indeed practicality.

As just stated, Invenergy treats ETSU-R-97 as the accepted (and only) standard for wind farm noise. OK so far as it goes but applying it as a pass/fail regulatory threshold that, once met, demonstrates that residential amenity is *de facto* protected is not OK. ETSU-R-97 is not a pass/fail regulatory threshold. It is guidance not policy. Its “guidance” must be applied with professional judgment not mechanistically. See, *R (on the application of Hayes) v South Holland DC [2014] EWHC 3899 (Admin)*; *Den Brook Wind Farm (Appeal Ref: APP/D0840/A/07/2100662)*. Invenergy has not demonstrated any such judgment but has instead undertaken a tick-box exercise. Courts and Inspectors have repeatedly confirmed that mechanical, tick-box compliance with ETSU-R-97 does not define acceptability and does not equate to an absence of harm. ETSU-R-97 does not address modern turbine effects adequately (because, as already explained, it pre-dates them). It does not robustly address amplitude modulation, low-frequency noise, or sleep disturbance. It assumes rural background noise conditions that are no longer representative. All of these issues should nevertheless be addressed if the exercise of professional judgement is to be shown. Invenergy has not shown any such use of judgement. Invenergy provides no justification or explanation as to why it has not provided any modern evidence on sleep disturbance, cumulative noise effects, tonal effects, or amplitude modulation (AM) etc. despite these clearly being issues and the subject of considerable research and study since 1996. This again speaks to a failure in professional judgment on the part of Invenergy.

ETSU-R-97 requires background noise data to be *representative*. Chapter 10 emphasises absolute limits. There is no discussion of tonality, impulsivity, or character correction. Invenergy has provided insufficient explanation of monitor placement, height, wind shielding, and terrain influence. It has not given robust justification for its survey locations or data filtering assumptions. Input assumptions, software versions, and modelling parameters are incompletely disclosed. Sensitivity testing is absent. The potential contamination by turbine-like noise sources has also not been transparently addressed. This lack of methodological transparency undermines any potential confidence in Invenergy’s noise assessment, and these omissions / failings prevent independent verification, contrary to EIA good practice. See, *R (Loader) v Secretary of State [2016] EWCA Civ 869* (modelling inputs and assumptions must be fully disclosed to allow for independent replication); *R (Larkfleet Ltd) v South Kesteven DC [2015] EWHC 597 (Admin)* (noise assessments must be transparent, robust, and representative); *Appeal Ref: APP/Q1445/A/14/2226464 (Wales)* (wind farm noise evidence rejected due to unrepresentative surveys). Chapter 10 fails the transparency test required by law.

Even if it were assumed / accepted that Invenergy has satisfied the “guidance” of ETSU-R-97, Chapter 10 still fails to demonstrate that it satisfies the no-significant effects requirement of EIA Regulations (2017), the no-significant-adverse-effects requirement of NPPF, the no-unacceptable-noise-impacts standard of NPF4 Policy 23. ETSU-R-97 compliance may be necessary, but it is not sufficient or determinative.

#### UK EIA REGULATIONS (2017)

The EIA Regulations (2017) mandate that an Environmental Impact Assessment (EIA) identify, describe, and assess the significant direct and indirect environmental effects of a proposed wind farm development on specific factors. This requirement includes population / health under EIA Reg 4(2). In this regard, an application must cover direct, indirect, secondary, cumulative, transboundary, short/long-term, permanent/temporary, positive, and negative effects, both during construction and operation.

In Chapter 10, Invenergy assumes noise impacts below ETSU limits are not significant, thus carry a limited weight in the planning balance, and therefore do not require a reasoned EIA significance test. This is incorrect. Noise and vibration significance under the EIA Regulations (2017) cannot be defined solely by compliance with ETSU-R-97. Instead, EIA Regulations (2017), Schedule 4, para 3 & 5, require an evaluation of *likely significant environmental effects*, including magnitude, duration, reversibility, and sensitivity of receptors. It is contrary to EIA Regulations (2017) to define significance solely by ETSU-R-97 thresholds. The EIA Regulations’ requirement for a comprehensive and precautionary assessment of significant effects is independent of / in addition to anything stated in ETSU-R-97. The EIA Regulations’ standard for *significant environmental effects* is not defined by nor satisfied by asserting compliance with ETSU-R-97’s “significant”. See, *R (Blewett) v Derbyshire CC [2004] EWCA Civ 147* and *R (Champion) v North Norfolk DC [2015] UKSC 52* (EIA Regulations (2017) are concerned with environmental reality, not box-ticking).

Invenergy has not addressed the EIA Regulations (2017) as an independent requirement. Specifically, it has provided no assessment of cumulative noise effects with other consented or proposed wind energy developments, but this is required. See, *R (Preston New Road Action Group) v Secretary of State [2018] EWCA Civ 9* (cumulative impacts must be assessed where multiple developments interact); see also, *Appeal Ref: APP/Q3115/A/13/2196944 (Clocaenog Forest)*. Invenergy’s exclusion / dismissal of other wind farms without acoustic modelling and absence of cumulative contours and combined exposure analysis renders Invenergy’s Chapter 10 legally deficient.

There is also insufficient treatment of low-frequency noise, amplitude modulation (AM), and night-time character effects, despite these being well-documented sources of significant adverse impact. Instead, AM, tonality, and character effects are deferred to post-consent enforcement, and no evidence is provided that harm would be avoidable. See, *Grampian Regional Council v City of Aberdeen DC [1984] 47 P&CR 633* (harm cannot be deferred to future conditions where acceptability is unknown); *Den Brook Wind Farm (Court of Appeal) [2015] EWCA Civ 868*.

Concerning AM in specific, Invenergy scopes it out on the basis that it is “not predictable” and therefore has omitted to undertake any precautionary assessment despite acknowledged uncertainty, relying instead on *future enforcement*. This wrongly ignores the ruling in *Den Brook* that AM is a material planning consideration and failure to assess or control it is sufficient to render an original permission unlawful, i.e. a wind farm developer cannot rely on *future enforcement*. It is inadequate. Re noise character (including but not limited to night-time character effects), in *Renewable Energy Systems Ltd v North Devon DC [2014] EWHC 400* the court reinforced that noise character, not just noise level, must be assessed. Invenergy has assessed only noise level.

It is incorrect that planning conditions can address unforeseen noise issues, that enforcement mechanisms will be sufficient, and that after-the-fact monitoring and complaint procedures will protect residents. Where there is acknowledged uncertainty, particularly in regard to AM, this must be assessed before consent. Planning conditions cannot retroactively assess significance, cure inadequate baseline data, or substitute for missing cumulative assessment. If Invenergy’s approach were taken, residents would have to endure harm before action was taken. Affected residents and households would bear the evidential and procedural burdens. This is *contra* the precautionary principle which underlies the EIA Regulations (2017). It is also *contra* court determinations that foreseeable noise harm must be addressed at permission stage, not left to enforcement, where the acceptability of impacts has not been demonstrated.

Chapter 10 does not satisfy the EIA Regulations (2017) legal tests.

#### UK NATIONAL PLANNING POLICY FRAMEWORK (NPPF)

The applicable sections of the UK’s National Planning Policy Framework (NPPF) to Invenergy’s Chapter 10 are Paragraphs 185, 186, and 187. These three paragraphs are intended to operate and be applied as a policy sequence to identify harm, assess significance, mitigate or avoid, and apply judgment. Paragraph 185 requires that planning decisions ensure that a proposed development is appropriate for its location, considering the effects of pollution, including noise. This involves mitigating adverse impacts from noise and avoiding significant adverse impacts on health and quality of life. This is key to preventing unacceptable noise levels. Paragraph 186 acknowledges that *some noise* is expected from a development, conditions apply. Paragraph 187 emphasises the importance of identifying and protecting tranquil areas valued for recreation and amenity. It also mentions protecting and enhancing valued landscapes, including through features that support biodiversity. Invenergy’s Chapter 10 starts and ends with ETSU-R-97 compliance, never undertaking the judgmental steps required by NPPF Paragraphs 185-187. It doesn’t engage with the NPPF noise policy framework at all. Policy tests must be applied independently. It is not lawful to assume that (asserted, alleged, claimed) technical compliance satisfies policy. See, *R (Gladman Developments) v SSCLG [2017] EWHC 2768 (Admin)*.

NPPF Paragraph 185 requires planning decisions to ensure that any development under consideration has demonstrated: (a) mitigation and reduction of potential adverse impacts from noise to avoid significant adverse effects on health and quality of life; (b) mitigation and reduction of impacts to a *minimum* where they cannot be avoided; (c) recognition that development may create noise, but only where impacts are *acceptable*; and (d) identified opportunities to improve acoustic environments. Paragraph 185 is outcome-based, not compliance-based.

As such, and in particular, Paragraph 185(a) requires a substantive evaluation of noise effects on people. This is absent from Invenergy’s Chapter 10. Instead, Chapter 10 defines *significant effects* solely by ETSU-R-97 numerical limits when it should be assessing for sleep disturbance, night-time awakenings, stress and wellbeing impacts, and loss of tranquillity.

NPPF Paragraph 185(b) requires impacts to be reduced *before* consent is considered. Such reductions in impact include turbine design optimisation, reduced operational envelopes, and site-specific impact-reduction mitigations. Invenergy has presented none of these. Instead, Invenergy has asserted uncertainty (e.g. amplitude modulation) and claimed that impacts can be deferred to post-consent enforcement. This is not permissible under Paragraph 185(b).

Paragraph 185 (c) draws a clear distinction between noise generation and acceptable noise impact. Chapter 10 collapses these two into a single technical exercise whereby acceptability is assumed once ETSU-R-97 compliance is shown without any qualitative or receptor-led assessment of acceptability being undertaken. Invenergy’s approach does not satisfy the requirement set out in Paragraph 185(c).

NPPF Paragraph 186 requires that a proposed development *avoid* noise which would give rise to *significant adverse impacts*; *limit* exposure to noise where impacts are *less than significant*; consider cumulative impacts, and use *conditions or mitigation* where necessary, but only where impacts are *acceptable* in principle. Asserting mechanistic compliance with ETSU-R-97 guidance is insufficient. Residential amenity cannot be reduced to decibel compliance. Chapter 10 addresses noise exposure is addressed at facades only. There is no consideration of duration of exposure. This is a particularly egregious omission given that more than 2 years of construction and up to 40 years of operation are proposed. Also, neither night-time vulnerability nor outdoor amenity exposure are addressed. Noise exposure is treated only as a level without regard for how often, how long, and in what context. Worse, cumulative noise is inadequately addressed. Other wind farm developments are either excluded or dismissed with no robust modelling and with no cumulative exposure mapping or receptor-based analysis being provided. This absence of consideration for cumulative impacts is a clear failure to meet the requirements of NPPF Paragraph 186. Finally, noise character effects (amplitude modulation (AM), tonality) are asserted to

be acceptable if deferred to conditions. This incorrectly assumes that impacts are acceptable in principle, though they have not been assessed. The imposing of planning conditions as part of planning consent cannot be used to justify consent where acceptability has not been demonstrated. This is circular. Paragraph 186 is not satisfied.

NPPF Paragraph 187 requires that planning decisions consider noise impacts in line with relevant guidance and standards. It expressly warns against applying guidance mechanistically, requiring instead that planning decisions show the exercise of judgment in deciding what is appropriate for the location and the context. Planning must respond to place. In Chapter 10, Invenergy treats ETSU-R-97 limits as a pass/fail test, i.e. entirely mechanistically, without adjustment for rural sensitivity, very low background noise, or modern turbine scale. Instead, whilst the rural context is acknowledged, it is not reflected in the assessment thresholds Invenergy presents or the conclusions it draws. Further, there is no recognition of the higher sensitivity to noise of isolated dwellings, especially knowing that the maximum blade tip heights contemplated by ETSU-R-97 in 1996 were a “mere” 80-90 metres and comparing that to the more-than-double tip heights of today. Invenergy cannot be granted planning permission. It has failed to demonstrate proper consideration and application of the “context” and “place requirements of NPPF Paragraph 187.

To summarise, Chapter 10 reduces the identification of *significant adverse effects* in NPPF Paragraph 185(a) to *significance* as used in ETSU-R-97. Where NPPF Paragraph 185(b) requires the mitigation of impacts to a minimum, Invenergy proposes to defer harm, not mitigate it, relying on planning conditions to manage unassessed harm. While NPPF Paragraph 185(c) requires a demonstration of acceptability, Chapter 10 assumes acceptability. Where NPPF Paragraph 186 requires the limitation of exposure and the assessment of cumulative impacts, Invenergy addresses neither of these. Instead of applying NPPF standards with *judgment* as required by NPPF Paragraph 187, Chapter 10 applies ETSU-R-97 mechanistically. These are policy failures against the requirements of NPPF Paragraphs 185-187. They are not technical disagreements.

#### SCOTLAND NATIONAL POLICY FRAMEWORK 4 (NPF4)

The National Planning Framework 4 (NPF4)<sup>2</sup> is the national spatial strategy for Scotland. It sets out spatial principles, regional priorities, national developments and national planning policy. It should be read as a whole. The Policies within NPF4 pertaining to noise are Policy 1, 4, 11, 14, and 23, These are addressed one by one below.

##### NPF4 Policy 1 (Climate and Nature)

NPF4 Policy 1 concerns the net effects of the climate and nature crises. It requires any development to contribute positively overall, to avoid solving one crisis by worsening another, and to demonstrate net public benefit.

What Invenergy has done in regard to NPF4 Policy 1 is claim climate benefit without weighing it against permanent local harm, including noise, and without addressing distributional impacts (who bears the harm versus who benefits). This is non-compliant because NPF4 explicitly rejects the notion that climate benefit automatically outweighs local harm. There must be a balance of equity and proportionality.

Thus, whilst NPF4 is in principle supportive of renewable energy developments, this support is conditional on noise impacts, including cumulative ones, having been robustly assessed, adequately modelled, and shown to be acceptable. Where impacts are uncertain, unassessed, or deferred, as they are in the case of the Mid Hill proposal, NPF4 lends no support. NPF4 outcomes cannot be reduced to simplistic metrics. Narrow interpretations(s) of NPF4, such as by focusing only on renewable benefit without fully integrating health/amenity outcomes are vulnerable to legal challenge. See, *Wildcat Haven Community Interest Company v The Scottish Ministers (2025 Supreme Court Permission Refused)* (outcomes must be comprehensively balanced not treated as box-ticking exercises). Invenergy’s failure to assess holistic outcomes (e.g., health, amenity, tranquillity) renders its planning balance inconsistent with the depth of assessment expected under NPF4. It also makes Invenergy’s Application subject to legal challenge.

##### NPF4 Policy 4 (Natural Places)

NPF4 Policy 4 requires protection of natural places, including designated and non-designated habitats, and the avoidance of indirect impacts such as disturbance. Noise is recognised as a disturbance pathway under Scottish planning policy. NPF4 Policy 4 requires site-specific ecological judgement, not proxy thresholds. What Invenergy has done is treat noise impacts only via generic thresholds and relied on AQTAG09 industrial noise criteria by analogy. These are completely inadequate to the standard of protection and impact-avoidance expected. Chapter 10 does not assess displacement effects, behavioural disturbances over time or the cumulative disturbance with other developments. Invenergy cannot be said to have complied with NPF4 Policy 4.

##### NPF4 Policy 11 (Energy)

NPF4 Policy 11 (Energy) supports renewable energy but only where specific criteria are met. Claimed national need does not automatically trump local harm. As such, NPF4 Policy 11 does not provide unconditional support for renewable energy development but expressly requires that impacts on communities, including noise, be addressed and mitigated.

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<sup>2</sup> <https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2023/02/national-planning-framework-4/documents/national-planning-framework-4-revised-draft/national-planning-framework-4-revised-draft/govscot%3Adocument/national-planning-framework-4.pdf>

Development proposals must optimise site suitability and design to minimise impacts on communities; address impacts on communities, including noise and amenity, and demonstrate that *significant adverse effects* are avoided or mitigated. NPF4 Policy 11 must be considered alongside NPF4 Policies 4 (natural places), 14 (liveable places), and 23 (health & safety).

While there may be renewable energy benefits in Invenergy's proposal, they cannot and do not outweigh the harm that would occur locally. Invenergy incorrectly assumes / asserts that national climate targets justify local harm and that alleged renewable energy benefits outweigh localised amenity impacts. Invenergy does not demonstrate why the Mid Hill site is uniquely required. It does not show that harm could not be avoided elsewhere. Invenergy's proposed development is non-compliant with NPF4 Policy 11.

Chapter 10 recognises that noise and vibration are material considerations, undertakes baseline surveys and predictive modelling, referencing ETSU-R-97 and standard acoustic methodologies in the process. This demonstrates that Invenergy is *addressing* community impacts, but this is very far from *demonstrating acceptability* of community impact. In fact, Invenergy's reliance on mechanical compliance with ETSU-R-97 as determinative of full noise compliance means it does not assess sleep disturbance, long-term exposure, loss of tranquillity, or noise character effects. The absence of any such assessments does not comply with NPF4 Policy 11's requirement to consider impacts on communities as *experienced* not just as *measured*. NPF4 Policy 11 expects a developer to demonstrate that impacts have been avoided or minimised through siting and design. Chapter 10 presents turbine layout and scale as fixed. It does not present any alternative layouts, reduced turbine heights or operational constraints to reduce noise risk. Without showing such minimisations, Invenergy fails to meet NPF4 Policy 11's optimisation requirement. Any support for Invenergy's proposal that might have otherwise been afforded it under NPF4 Policy 11 is further removed by virtue of Invenergy's non-compliance with NPF4 Policies 14 and 23. These are discussed next.

#### NPF4 Policy 14 (Design, Quality & Place)

NPF4 Policy 14 requires a proposed development to create places that are healthy, pleasant, and liveable; avoid adverse effects on the use and enjoyment of people's homes; and consider sensory impacts, including noise. As stated in the section above discussing NPPF, what Invenergy has done is assess noise only at facades and only in decibel terms. It does not consider the use of people's gardens, outdoor amenities, or any perception of place or tranquillity. There is no assessment of how turbine noise would irrevocably alter the lived experience of rural dwellings. The meaning of "amenity" under NPF Policy 14 is broader than technical compliance. Invenergy has provided no place-based or receptor-led amenity assessment.

#### NPF4 Policy 23 (Health & Safety)

NPF4 Policy 23 requires that a development not give rise to unacceptable impacts on physical or mental health; considers quality of life, not merely regulatory compliance; and applies a precautionary approach where evidence is uncertain. It is a limiting policy, not a balancing one. Proposed developments that raise unacceptable noise issues cannot be supported. What Invenergy has done is reduce health considerations to ETSU-R-97 noise compliance and explicitly excluded sleep disturbance assessment, chronic exposure effects, and stress and wellbeing impacts associated with noise character. Invenergy has deferred uncertainty to enforcement and has failed to apply the precautionary principle which inheres in NPF4 Policy 23. Moreover, NPF4 Policy 23 is outcome-focused, not threshold-focused. Scottish policy does not permit ETSU-R-97 compliance to equate to acceptable health impact. A key omission on Invenergy's part is a Health Impact Assessment (HIA) or an equivalent qualitative health appraisal, something NPF4 Policy 23 explicitly expects where impact is likely.

#### SCOTTISH BORDERS COUNCIL LOCAL DEVELOPMENT PLAN 2024 (LDP)

Policy ED9 of the LDP states that development proposals will be assessed in accordance with NPF4 Policy 11 paragraphs b) to f) and other relevant provisions of NPF4. For the reasons set out in the NPF4 section above, Invenergy's Application fails to satisfy the requirements of the LDP in the same way that it fails to satisfy the requirements of NPF4 Policy 11 et al.

The LDP requires that any proposed development protect residential amenity in a rural context where sensitivity is higher and not create unacceptable living conditions in such a setting. What Invenergy has done is apply generic ETSU-R-97 limits without contextualising for rural sensitivity and without considering existing tranquillity. This fails to demonstrate acceptability under the LDP. Rural baseline sensitivity is a material consideration under the LDP, and a decibel-only approach does not meet local policy intent.

The LDP recognises tranquillity as a valued rural asset. It also recognises that noise and visual landscape effects interlock and interact and must therefore be addressed in tandem. Invenergy ignores this and treats noise and landscape in isolation. Chapter 10 provides no cross-reference to or combined analysis of noise and vibration with the visual landscape effects discussed in Chapter 5. This is non-compliant. Integrated assessment of sensory effects is required under the LDP. Noise that theoretically might be acceptable in isolation is not acceptable when combined with visual dominance.

The Scottish Borders Supplementary Planning Guidance (Wind Energy) (SPG) requires a material and explicit consideration of noise impacts on individual properties, a cumulative assessment with other wind energy proposals, and clarity on uncertainty and risk. Invenergy states SPG relevance is "diminished" by NPF4. NPF4 does not permit the disapplication of local guidance such as the SPG. It requires that local and national be read and applied together. Invenergy has not applied SPG criteria explicitly, has not provided a compliance matrix, and has not justified its departure from SPG expectations. There is no explicit SPG compliance assessment.

Policy HD3 is part of the LDP. It applies to *all* development proposals, including renewable energy proposals. Within the LDP, Policy HD3 protects residential amenity, including separation distances, tranquillity, and noise. It states, “*Development that is judged to have an adverse impact on the amenity of existing or proposed residential areas will not be permitted*”. It specifically lists noise as an adverse impact factor that must be considered in assessing amenity. Reading Policy HD3 alongside the broader policy environment (e.g., NPF4’s objectives for health, wellbeing and place quality), Chapter 10 fails to assess compliance against HD3 just as it does against NPF4.

Policy HD3 requires the exercise of judgment in determining adverse impact. Compliance with technical thresholds is entirely insufficient. Recent Scottish Borders planning decisions and appeals have actively applied Policy HD3 where noise was material. Environmental Health has been consulted where noise assessments were uncertain, and recommendations on conditions were clearly linked to preserving residential amenity.

As previously stated, Invenergy presents compliance with ETSU-R-97’s minimal noise thresholds as sufficient to prove there is *ipso facto* no adverse impact from noise on residential amenity. This fails under Policy HD3. See also BLCG’s statements above regarding amplitude modulation (AM), low-frequency effects, sleep disturbance, tranquillity loss, long-term and cumulative impacts. All of these are within scope for determining whether amenity is adversely affected under Policy HD3. Invenergy has not complied with Policy HD3’s requirements, particularly ignoring the higher amenity sensitivity of rural households (where background noise is lower and tranquillity more valued). It has also failed to assess outdoor amenity spaces (gardens and curtilage), both of which are integral parts of residential quality. Invenergy’s proposal does not meaningfully engage with Policy HD3’s protective aims.

Invenergy’s omissions with regard to the LDP in general and Policy HD3 in specific weaken the planning balance even further than have the omissions and failures of Invenergy to satisfy NPF4 requirements. Invenergy’s failure to satisfy LDP requirements provides additional, independent grounds for refusal of the Application.

#### BS 5228-1 (NOISE) and BS 5228-2 (VIBRATION)

BS 5228<sup>3</sup> (Code of practice for noise and vibration control on construction and open sites) applies in Scotland. It was approved by Scottish Ministers as the appropriate code of practice for minimising noise under the Control of Pollution Act 1974, specifically through *The Control of Noise (Codes of Practice for Construction and Open Sites) (Scotland) Order 2002*. It provides best practice guidance and is officially approved for use in Scotland to manage noise on construction sites and open sites. The current, relevant version is BS 5228:2009+A1:2014 (Parts 1 and 2) covering noise and vibration control respectively. It is required to be used by local authorities and developers in the assessment and control of noise levels in relation to planning applications and EIA submissions. It must be used to help determine the *best practicable means* for limiting noise and vibration, as required by Section 72 of the Control of Pollution Act 1974.

In Invenergy’s Application, the construction noise associated with the proposed development is described generically. First, though construction exceedances of 19 dB are acknowledged, they are heavily minimised. Second, no enforceable mitigation strategy or Section 61 framework is presented. Third, no worst case scenarios are modelled for simultaneous activities, night-time or extended hour works, or abnormal loads. Worst case scenarios, including night works, are required. See, *Appeal Ref: APP/R3325/A/17/3187702* (citing BS 5228). Moreover, ground-borne vibration is scoped out with minimal justification, and Invenergy has provided no quantitative vibration predictions at sensitive receptors. BS 5228 requires quantified predictions not qualitative dismissal. See, *R (McMorn v Natural England [2015] EWCA Civ 1147*. All in all, Chapter 10 unlawfully underplays construction impacts.

#### CONCLUSION

The burden of proof to show that noise impacts are acceptable lies with Invenergy. Invenergy has not satisfied its burden of proof. Chapter 10 and its accompanying appendices are not robust and are replete with policy failures. They assert compliance rather than demonstrate compliance. Invenergy has not satisfied the requirements for comprehensive and precautionary assessments of significant noise, vibration, and amenity impacts and effects. It has heavily relied on minimum-compliance arguments. It has failed to address modern turbine impacts. Chapter 10 is not sufficient for informed decision-making. The Application cannot be allowed to proceed.

## **CHAPTER 11 GEOLOGY, HYDROLOGY, HYDROGEOLOGY AND PEAT**

### INTRODUCTION

BLCG objects to Invenergy’s Application on the grounds that it does not provide an adequate or lawful assessment of impacts on geology, hydrology (including private water supplies), hydrogeology, or peat. The objection laid out here particularly emphasises groundwater, private water supplies (PWSs), sediment-laden runoff, borrow pits and deep excavations, downstream water quality, and peat hydrology, all of which receptors are subject to statutory protection and heightened sensitivity in a high-rainfall upland environment such as is found in and surrounding the proposed Mid Hill development site.

Invenergy’s Chapter 11 and its appendices present a substantial volume of information and reference relevant policy and guidance. However, the mere presence of masses of information does not equate to legal adequacy. Invenergy’s Chapter

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<sup>3</sup> [https://www.legislation.gov.uk/uksi/2015/227/pdfs/ukxiem\\_20150227\\_en.pdf](https://www.legislation.gov.uk/uksi/2015/227/pdfs/ukxiem_20150227_en.pdf)

11 and appendices do not provide a sound evidential basis upon which a competent authority could lawfully conclude that significant adverse effects are unlikely. In this regard, Invenergy systematically places reliance on embedded mitigation, presumed “good practice” and future management plans to discount effects at the assessment stage. This approach impermissibly defers critical evaluation to post-consent controls, obscures residual risk and uncertainty, and limits a decision-maker’s ability to assess significance at the Application stage, as is required. In several key areas, Invenergy asserts “no significant effect” without adequate explanation, quantification or demonstration. These failings mean Invenergy’s Application must be turned down.

#### DEFICIENT METHODOLOGY AND BASELINE(S)

Invenergy adopts a 500m study area for groundwater-dominated receptors, including private water supplies, springs and peatland systems without sufficient justification. Such receptors often have catchments extending well beyond arbitrary distance thresholds. The failure to define receptor catchments in hydrogeological terms risks under-identification of affected receptors, contrary to the purpose of the EIA Regulations.

Invenergy’s groundwater and private water supply baselines rely heavily on regional datasets and desk-based assumptions. There is no baseline groundwater monitoring, no baseline PWS water quality or yield data, and no quantified understanding of groundwater flow paths. These omissions materially undermine confidence in the conclusions reached and increase the risk that impacts would only become apparent after the fact. This is contrary to the preventative intent of EIA Regulations and its precautionary principle.

Invenergy’s Chapter 11 materials do not present a site-specific conceptual hydrogeological model, despite acknowledging conditions (fractured bedrock, shallow groundwater, peat and organo-mineral soils) that are inherently sensitive to disturbance. Without such a model, there is insufficient information to understand how groundwater currently flows across the proposed site, how excavations, tracks, borrow pits and foundations might intercept or divert that flow, and whether groundwater-dependent receptors would be indirectly affected. Assertions that impacts will be negligible are therefore unsupported by adequate evidence, and the conclusions are irrational and inadequately reasoned.

The lack of baseline water quality and yield data represents a fundamental flaw. Without baseline information, impact detection becomes uncertain, attribution becomes contested, and effective enforcement becomes difficult.

Invenergy makes no clear commitment to monitoring, trigger thresholds or guaranteed contingency measures. These omissions are particularly serious given the statutory protection afforded to private water supplies.

#### SEDIMENT-LADEN RUNOFF AND DOWNSTREAM POLLUTION

The proposed site lies in an upland area characterised by high rainfall, rapid runoff generation and flashy hydrology. These characteristics materially increase the likelihood and consequence of sediment mobilisation. Chapter 11 and its appendices fail to integrate this baseline vulnerability into magnitude and significance assessments. Sediment impacts are consistently described as minor and temporary without a reasoned evaluation of how mitigation will perform during intense or prolonged rainfall, despite such conditions being foreseeable and increasingly likely with ongoing climate change. This represents a failure to assess a reasonable worst-case scenario.

#### SEDIMENT VOLUME, CONTROL CAPACITY, AND FAILURE SCENARIOS

Invenergy does not quantify the volume of sediment likely to be mobilised, the sediment load that watercourses may receive during storm events, or the performance limits of proposed drainage and sediment controls. Nor does it meaningfully consider control failure or exceedance, despite these being well-documented risks in upland construction environments. As a result, there is insufficient information to lawfully conclude that sediment impacts will not be significant, particularly for downstream sensitive receptors.

#### INSUFFICIENT PROTECTION OF PRIVATE WATER SUPPLIES

Invenergy correctly identifies private water supplies as high-sensitivity receptors, yet does not carry this knowledge and awareness of sensitivity through into the assessment of impact magnitude or risk. There is no adequate assessment of sediment ingress into spring recharge zones, of likely / expected rapid contamination during heavy rainfall events, or changes in yield resulting from groundwater interception. All Invenergy’s conclusions of “no significant effect” are therefore unsupported by receptor-specific evidence. Two illustrations will serve to emphasise the point: Woodburn Dipper and Woodburn Lodge, both having post code TD9 7PJ.

##### Woodburn Dipper

The private residential property known as Woodburn Dipper is supplied by a private water supply sourced from a spring. The exact spring source is unknown and unmapped. Only the location of the collection tank is known. This private water supply is therefore dependent on local groundwater conditions and vulnerable to changes in subsurface flow paths. Without identification of the spring source, the groundwater catchment cannot be delineated, connectivity with construction works cannot be ruled out, and worst-case impacts cannot be assessed. Construction on the scale proposed by Invenergy would involve deep excavations, track cut-and-fill, cable trenching, drainage installation and potential dewatering, all of which risk interception or alteration of groundwater flow to spring-fed water supplies such as Woodburn Dipper. Even though Woodburn Dipper is an in-scope receptor, because Invenergy’s Application relies only on registered private water supply records and confirmation of known locations, hydrology assessment of Woodburn Dipper is missing by definition.

Invenegy relies instead on assumed source locations, fixed buffers, and generalised statements about low aquifer productivity.

Because Woodburn Dipper's spring-fed water supply comes from an unidentified source, it is also an unbounded and high-sensitivity receptor. Unmapped, it cannot be spatially screened against turbines, tracks, cable trenches, borrow pits or drainage works. No hydrogeological catchment or groundwater flow-path analysis has been provided. No baseline water quality or yield data for supply, and no monitoring triggers are offered. Invenegy must provide all of this. Without them, Invenegy cannot assume that significant adverse effects are unlikely.

As a high sensitivity receptor, mitigation and monitoring of Woodburn Dipper's water supply would have to be undertaken before any planning permission that might be granted. Without it, the Application cannot be approved. Invenegy offers only post-consent mitigation and monitoring, i.e. the Construction Environment Management Plan (CEMP). Further, no binding commitment to provide an alternative potable water supply should deterioration occur is offered. For a private, drinking water supply, this does not meet the requirements of EIA Regulations.

Invenegy's methodology to rely on known, registered locations is insufficient. In Technical Appendix (TA) 11.1, Invenegy demonstrates that where receptors are recognised as sensitive to hydrological change, it would undertake site-specific investigation, identify groundwater emergence points, delineate catchments using high-resolution terrain data, and monitor baseline water quality. This level of scrutiny would not – because of having omitted all but known, registered locations – be applied to spring-fed private water supplies with unidentified sources, such as Woodburn Dipper. But this is required under the applicable regulations. Invenegy must undertake further investigation, map all private water supplies within the proposed site boundary and beyond, whether recorded and mapped, or unknown and unrecorded. This would require it to visit every private property in the relevant area, conduct the proper mapping and then do the required assessments. Without this, the Application cannot proceed.

TA 2.1 confirms that the submitted Construction Environmental Management Plan (CEMP) is an outline document only, to be finalised post-consent and to be informed by future surveys, contractor methods and micro-siting decisions. Detailed drainage design, monitoring locations, trigger values and construction methodologies are not fixed at Application stage. The CEMP states that a Private Water Supply Action Plan would only be prepared if a supply were later identified as potentially affected. For a spring-fed supply with an unknown source, this represents a deferral of assessment rather than mitigation.

Taken together, Chapter 11 and its technical appendices do not establish, at the point of determination, whether significant effects on private water supplies can be excluded. Reliance on post-consent mechanisms does not remedy the absence of robust, supply-specific assessments. Their absence means Invenegy's Application cannot proceed.

#### Woodburn Lodge

Woodburn Lodge is supplied by a private water supply. Whilst the spring is mapped between the tank for Woodburn Lodge and the tank for Woodburn Dipper higher up, Woodburn Lodge relies on Woodburn Dipper's unmapped water supply for several months each year. Any changes affecting Woodburn Dipper's supply will also affect Woodburn Lodge's supply. Woodburn Lodge's private water supply is dependent on local groundwater conditions and vulnerable to changes in subsurface flow paths, the same as Woodburn Dipper. Therefore, Woodburn Lodge's water supply is compromised by Invenegy's proposals to the same degree and in the same way as Woodburn Dipper's.

Invenegy's Application provides no baseline water quality or yield data for Woodburn Lodge's supply, no monitoring triggers, and makes no binding commitment to provide an alternative potable water supply should deterioration occur.

Invenegy's Application relies on registered private water supply records and confirmation of known locations. This approach is not sufficient for a supply with an unknown source, as the receptor cannot be spatially screened against turbines, tracks, cable trenches, borrow pits or drainage works. No hydrogeological catchment or groundwater flow-path analysis has been provided.

Although Invenegy identifies such private water supplies as Woodburn Lodge as high sensitivity receptors, it proposes to defer mitigation and monitoring to post-consent plans such as the CEMP. For a drinking water supply, this does not meet the requirements of EIA Regulations.

Invenegy's Application cannot proceed without re-consultation including a full and proper investigation of the spring source and a binding alternative water supply guarantee.

#### UNDERESTIMATED RISK FROM BORROW PITS AND DEEP EXCAVATIONS

Borrow pits and deep excavations represent predictable and foreseeable points of hydrological risk, particularly in high-rainfall conditions. Invenegy has not adequately assessed water accumulation within excavations, the need for de-watering, the quality of water discharged or infiltrated, or the interaction between excavations, groundwater flow and private water supplies. By failing to provide a borrow pit-specific hydrogeological and water management assessment, there is no basis on which to properly understand or evaluate these risks.

#### PEAT HYDROLOGY AND SECONDARY POLLUTION EFFECTS

While direct disturbance of deep peat has largely been avoided, Invenegy's Application does not adequately assess indirect hydrological impacts, including drying, edge effects and disruption of lateral flow. Nor does it sufficiently consider the role of disturbed peat as a secondary pollution source, contributing sediment and dissolved organic carbon to downstream waters. This omission significantly undermines the sufficiency of the assessment of cumulative and secondary effects.

Far more problematically, Chapter 11 and its appendices provide no assessment of any kind for peat and peatland outside the proposed site boundary for the proposed access route(s). A peat and peatland assessment on this is required by EIA law, NPF4 policy, and Scottish government guidance. The requirement applies to off-site access routes, including abnormal load routes where ground disturbance is planned. EIA law does not distinguish between on-site and off-site. NPF4 policy applies to all infrastructure associated with a proposed development including access tracks, haul routes, and abnormal load routes. If peat is not assessed, NPF4 policy compliance cannot be demonstrated. Without assessment, it is impossible to determine whether peat is present or not. Scottish government “Developments on Peatland” guidance explicitly applies to the access tracks and infrastructure corridors of proposed wind farm developments. Abnormal load routes involving widening or re-profiling fall squarely within this scope. In Scottish wind farm decisions and appeals, it has been made clear that peat assessment is required for all access infrastructure and that failure to assess peat on proposed routes leads to refusal. The infrastructure required to deliver the proposed development is part of the development.

Invenergy’s Chapter 9 and TA 9.1 and TA 9.2 show extensive widening, land reprofiling, drain covering, track upgrading, and temporary load-bearing surfaces, all of which are proposed to pass through rural upland areas, forestry land, and undeveloped landscapes. The absence of any peat or peatland assessment is a clear legal and policy breach. Neither is there anything in this Chapter 11 or its documents on the subject. Invenergy’s Application cannot proceed.

## CONCLUSION

Taken as a whole, Chapter 11 and its appendices do not provide any level of certainty that the proposed development will not give rise to significant adverse effects on groundwater, private water supplies, peat and downstream water quality. Invenergy’s assessments rely excessively on future mitigation, fail to assess worst-case and failure scenarios, do not adequately characterise baseline conditions, and obscure residual risk and uncertainty. Given these failings, Invenergy’s Application cannot proceed. In addition, the absence of a peat and peatland assessment along the proposed access route(s) in either this chapter or in Chapter 9 is a material omission and precludes Invenergy’s Application from progressing further.

## **CHAPTER 12 AVIATION, RADAR AND DEFENCE**

### INTRODUCTION

BLCG objects to Invenergy’s Application for approval of the 13-turbine wind farm development proposal called Mid Hill on the basis of Chapter 12 Aviation, Radar, and Defence. First, BLCG incorporates herein by reference the entirety of the Ministry of Defence’s (MoD) recently filed formal objection on all three of these grounds – aviation, radar, and defence. Of particular note is the MoD’s reaffirmation that the 50km exclusion zone around the Eskdalemuir Seismic Array (the Array) remains unchanged, that there is no current or expected available “noise budget” within that zone, and therefore that Invenergy’s proposed development cannot proceed. See:



MoD Consultation Response



Scotsman 20260122

BLCG endorses and adopts the MoD’s position. The proposed development cannot proceed. No proposed development within the 50km consultation zone can proceed. All proposals for onshore wind farms within the 50km consultation zone must be dismissed, including the Mid Hill proposal. In further support, BLCG lays out below its own, similar arguments.

### THE CURRENT EXCLUSION ZONE PROHIBITS DEVELOPMENT

For several years the Scottish government has striven to position itself as a global leader in renewable energy, with onshore wind playing a central role in achieving net-zero targets, enhancing energy security, and supporting rural economies. This is an admirable ambition. However, it cannot be pursued in the face of risk to the UK’s or the world’s defence security. The problem with Invenergy’s Application is that, if approved, it would create precisely such a risk.

The “trouble” lies with the UK’s international defence obligations under the Comprehensive Nuclear Test Ban Treaty (CNTBT) and the location of the Eskdalemuir Seismic Array (the Array) in the Eskdalemuir area of the Scottish Borders. The Array is a strategic national and international security asset. It underpins the UK’s obligations under the CNTBT. The Array’s noise and vibration sensitivity is such that even low-level ground vibrations can compromise its detection abilities and its data quality. Consequently, the MoD has set and maintains a 50km exclusion zone. This exclusion zone safeguards against those compromises. The exclusion zone ensures that the UK (and so Scotland) meets its international obligations and preserves the integrity of an internationally important and significant defence system.

The MoD has set a “noise budget” for external, non-nuclear risk noise such as turbine blade vibration within the exclusion zone. Currently, the “noise budget” is at its maximum. There is no “headroom” for any new, proposed wind farm developments that lie within the 50km exclusion zone. Invenergy’s proposed Mid Hill wind farm turbines are located 15-17km from the Array, i.e. *within* the current 50km exclusion zone. It therefore cannot proceed under current law.

Crucially, restricting development within this zone does not materially impede Scotland’s renewable energy objectives. It does not prevent Scotland (or indeed the Scottish Borders) from approving development of other onshore wind farms that

lie outside the 50km exclusion zone. It only prevents any that fall *within* the 50km exclusion zone as Invenergy's does. Scotland possesses vast wind resources across upland, coastal, and offshore areas well beyond the Array's 50km buffer. Furthermore, offshore wind offers substantial, scalable capacity with fewer land-use conflicts and no impact on seismic monitoring. By directing investment toward these areas, the Scottish government can maximise its ambition to achieve green energy generation while avoiding sensitive national infrastructure. Violating the 50km zone in pursuit of marginal gains in onshore wind capacity introduces unacceptable strategic vulnerabilities for a demonstrably limited additional environmental benefit.

Limiting wind farm development only to areas *beyond* the Array's 50km safeguarding zone would represent a balanced and responsible policy choice. It would allow Scotland to continue expanding its renewable energy capacity at scale, while unequivocally protecting national security interests and international treaty obligations. By aligning environmental leadership with strategic national defence prudence, the Scottish government can demonstrate that the transition to green energy need not come at the expense of global safety and security.

As the lodging of its formal objection illustrates, the MoD is finding itself compelled to expend considerable financial and administrative resources to defend the operational integrity of the Array by objecting to individual wind farm applications within the 50km consultation zone. This piecemeal approach is inefficient, avoidable, and is placing an unjustified and continuing burden on the MoD's budget at a time of heightened international instability and nuclear security concerns. The Scottish government (and so the ECU and Scottish Borders Council) has the authority, and it could be argued, the responsibility, to eliminate this burden and provide certainty for all stakeholders by imposing an immediate and definitive restriction on all wind farm developments within the 50km zone surrounding the Array. Only this will ensure the Array's ongoing operational effectiveness in the defence not only of this country, the UK, but the world globally.

In addition, a clearly defined and consistently enforced exclusion zone would also provide certainty for developers, planners, and local communities. It would reduce the risk of protracted planning disputes, legal challenges, and retroactive mitigation costs, thereby supporting a more efficient and investor-friendly renewable energy sector.

Any decision on Invenergy's Application other than on the basis of the current 50km exclusion zone, and on the MoD's formal objection filed on 13 January 2026 is procedurally unsound, is an attempt to pre-empt national security policy at a time of heightened international instability and nuclear security concerns, and exposes any decision to the contrary to a material risk of legal challenge. Invenergy must be required to abandon its proposal for a wind farm development at Mid Hill.

#### ANY MODIFICATION OF EXCLUSION ZONE IS UNKNOWN AND CANNOT BE RELIED UPON

The MoD's objection to Invenergy's Application stands in the face of ongoing and long-standing pressure from the Scottish government to review the current methodology for calculating cumulative seismic impacts within the 50km exclusion zone and the associated headroom / "noise budget" ceiling. In recent years, the Scottish government commissioned engineering consultants (Xi Engineering) to model more limited exclusion and consultation zones together with increases in "noise budget" which, it claims, will not compromise the UK's defence obligations or international nuclear security.

The Scottish government initiated this review precisely because it regards the unavailability of "noise budget" and the headroom ceiling being reached as obstacles to its ambition to be a net zero leader. It wants these changed so that it can approve wind farms in / near the Array. But this is not enough to allow Invenergy's Application to proceed. Even if the MoD had not filed the objection it has, it would still not be possible to lawfully or rationally determine that the Mid Hill proposal would not breach seismic noise thresholds, exhaust remaining headroom, or prejudice future developments. The Scottish government's review work remains incomplete, unpublished, unverified, and unvalidated. Proceeding to a determination – any determination – while the methodology review process remains underway is procedurally unsound and would expose the decision to material risk of legal challenge on the grounds of uncertainty, irrationality, and failure to apply a settled policy.

To approve, or even meaningfully consider, Invenergy's Application in advance of any such 'expected' revisions to MoD's methodology amounts to pre-empting the outcome of the ongoing process, never mind undermining the integrity of the nuclear safeguarding provided by the Array. At the very least, and only if the Scottish government were to find a legal way to disregard the MoD's formal objection which has now been filed, Invenergy's Application must be held in abeyance until a formally adopted, revised seismic safeguarding and headroom allocation policy has been agreed by the MoD and has been demonstrated to work consistently and transparently. Until then, unless then, planning decisions must be based on existing policy not anticipated reforms. Under existing MoD policy, Invenergy's Application must be denied.

#### EVEN UNDER A MODIFIED EXCLUSION ZONE, THE APPLICATION FAILS

Invenergy's Application relies on the Planning and Infrastructure Act 2025 which was given royal consent on 18 December 2025. It is no more than an assumption that new regulations pursuant to this Act will be issued in due course with regard to the Array. Until then, it was premature of Invenergy to make representations of any sort. The terms and impact of any new regulations are unknown. However, this is precisely what Invenergy has done.

Invenergy's entire justification for submitting its Application rests on the future adoption of a Seismic Impact Limit (SIL). In the MoD consultation paper published Sept 2024, <https://www.gov.uk/government/consultations/consultation-on-the-ministry-of-defences-approach-to-safeguarding-the-eskdalemuir-seismological-array>, it is stated:

*5.15 In July 2020, the findings of this technical analysis were presented to the EWG by Xi Engineering Consultants Ltd showing that there could be additional capacity within the Eskdalemuir threshold which would allow for additional generation capacity of between 0.8 and 1.2 Gigawatts (GW). These results*

*acknowledged that the amount of additional capacity depends on the distance of turbines from the Array and suggested that the additional capacity could be protected by increasing the advisory exclusion zone around the Array. Xi Engineering Consultants Ltd concluded that a single typical (2.5 MW) turbine at 10 km from the Array station location has the same impact upon the Array as around 7000 turbines at 50 km. It was agreed therefore that further technical analysis would be undertaken by Xi Engineering Consultants Ltd and reported to the EWG in due course.*

Even if the proposals in the consultation were to be adopted, the location of the proposed Mid Hill turbines – being right on the edge of the anticipated new 15km border for the exclusion zone – would take up, if permitted, a disproportionate amount of noise. Invenergy’s Application is based on “best case assumptions” and its entire justification rests on future adoption of a SIL which is not current policy. Planning decisions must be made on current policy.

Most importantly, and the unavoidable point here, even if a new SIL were adopted and became law, the turbine sizes Invenergy proposes would breach that SIL in most scenarios. At 7.2 MW per turbine, all 13 proposed turbines would fail SIL for all deployments (1.0-2.5 GW) in almost every model. At 4.5 MW per turbine, only one model (SG155, background removed) would pass SIL at 1.0 GW. This is not the turbine model proposed. Thus, Invenergy’s proposal does not meet SIL, even if it were to be adopted. Invenergy’s proposal to pass SIL depends entirely on future mitigation being “likely required” but is not specified in the Application. Mitigation measures are not defined. Curtailment losses are not quantified. Neither operational feasibility nor enforceability are confirmed. Everything remains uncertain. Impact acceptability is not demonstrated.

Several of Invenergy’s proposed “compliant” outcomes rely on removing background noise. This is a best-case scenario. It is also not currently standard MoD practice. It has no agreed methodology. Removing background noise is not approved, validated, or enforceable at planning stage.

The Array’s current seismic “noise budget” (0.336 nm) is already fully allocated under the MoD’s current tool. It is managed on a queue basis. This is outside Invenergy’s control. Yet its Application assumes that future headroom will exist, but as it has no guaranteed noise budget entitlement, this is a nonsensical assumption.

Invenergy’s queue-scenario modelling is optimistic. It is also non-binding. For Invenergy’s Application to proceed, other proposed developments currently in the queue ahead of Invenergy would all have to not proceed. For example, Invenergy’s compliance at 1.0 GW relies on Scenario 3. Scenario 3 assumes both Scoop Hill and Teviot are not built. Invenergy cannot rely on other consented or pending developments failing as the basis for arguing that its development should proceed.

Invenergy’s queue scenarios assume all other wind farms will fully comply with SIL. This is neither enforceable nor currently required.

The only scenarios which “pass” – Scenarios 17 + 18 – rely on a single turbine model and SG155 measurements that were taken in Sweden. This constitutes non-representative data. Applying conservative geology normalisation to translate the data to Eskdalemuir geology, as Invenergy does, is insufficient. Any scenarios Invenergy wanted to put forward should have been based on SG155 measurements that were site-specific and in-region.

Even when using refined Phase 4 data, the Vestas (worst-case realistic turbine model) fails SIL across all scenarios.

## CONCLUSION

Planning decisions must be based on existing policy, not anticipated reforms. The Eskdalemuir Seismic Array is essential to the safeguarding of the nation, and until such time as a new policy may / might be implemented regarding building turbines within the current 50km exclusion zone, no planning proposals should be considered. Invenergy’s Application relies on future policy, and the “noise budget” that would be consumed by its turbines do not meet SIL limits without mitigation. The mitigation has not been defined. The queue scenarios depend on other wind farm proposals not being accepted, which is not in the control of Invenergy, and subject to speculation. The proposal to use smaller turbines was never presented to the local community and therefore requires a new application. The proposal uses “best case scenarios”. The closeness of the proposed turbines (15.1km to 17km) to the Array will take up a disproportionate amount of “noise” and therefore deny the possibility of considerably more energy being able to be produced further out from the Array. Until and unless current MoD policy is changed, Invenergy’s Application must be denied.