

Review of SG RD2: Wind farms and medium to large wind turbines

1. Introduction

- 1.1 'SG RD2: Wind Farms and medium to large wind turbines' addresses the development of wind farms and non-domestic scale wind turbines in Aberdeenshire. The purpose of this paper is to examine SG RD2 in light of changes in the national policy and local context. It will consider whether it meets the requirements of Scottish Planning Policy and other national planning documents, and whether it forms a sound basis for making planning decisions on wind farms and medium to large wind turbines in Aberdeenshire.

2. Approach

- 2.1 SG RD2 supports medium and large scale wind energy developments subject to them meeting a robust set of criteria. Criterion 1 addresses the potential impact of proposals on health and safety. This criterion primarily relates to the need for turbines to be set back from roads, footpaths, bridleways and occupied buildings in case of collapse or ice throw, and for them to be sited in such a manner that they will not cause driver distraction. Criterion 2 addresses the need for turbines to "be set back from roads and railways to a distance greater than the height of the turbine(s) proposed." Criterion 2 therefore covers an issue that is already addressed in criterion 1. This duplication is unnecessary, however it would be appropriate for the need for sufficient set back distances to be communicated in the 'reasoned justification' section.
- 2.2 Criterion 3 states that wind energy developments should not have a negative impact on civil and defence radar, radio or TV reception, or the "safeguarding zones for airports, airfields or airstrips (either licensed or unlicensed), aircraft flight paths, or MOD low flying areas." It does not, however, address the potential for wind turbine developments to have an impact on wireless broadband internet transmissions. An amendment to make reference to this may therefore be required.
- 2.3 Criterion 4 protects the amenity of dwelling-houses from negative effects such as noise disturbance or visual impacts. This is a particular issue with wind energy developments so it is appropriate for it to be addressed here.
- 2.5 Tourism and recreation interests, including the users of established public access routes, are protected from any "significant adverse effects" from wind turbine developments by criterion 5. Public access routes are already provided with protection by 'SG LSD6: Public access,' however this policy also provides broader protection for tourist interests from any deleterious impacts arising from wind turbines. Impacts on tourism, although difficult to prove, can exist in certain circumstances according to the Scottish Government's paper 'The economic impacts of wind farms on Scottish tourism.' This criterion should therefore be retained.
- 2.6 The cumulative impact of wind energy development is addressed by criterion 6 of the policy. It provides important protection against the cumulative impact of multiple turbine developments on the landscape, amenity, natural heritage and, where observed, other factors. Consideration of cumulative impacts is becoming increasingly relevant given the scale of wind turbine development taking place in Aberdeenshire.

- 2.7 The 'Reasoned Justification' for SG RD2 goes on to highlight the importance of other considerations – including landscape, natural heritage and built heritage – and associated policies to the appraisal and subsequent determination of planning applications for wind turbine applications. However, although the policy makes some reference to siting and design considerations and to the landscape policy, there is currently a deficit in detailed guidance on the siting and design of wind turbines. It is anticipated that this lack of guidance will be remedied, by the publication of The Aberdeenshire and Angus Landscape Capacity Study 2013. It will therefore be necessary to amend SG RD2 to state that proposed developments should take account of the design guidance contained in this document, which should be published as a separate planning advice for ease of reference.
- 2.8 The reasoned justification also clarifies that SG RD2 only applies to non-domestic turbines, with domestic turbines being considered under 'SG Rural Development3: Other renewable energy developments' (SG RD3). Unlike SG RD2, SG RD3 does not include criteria on technical constraints such as radar and TV reception. The rationale for considering domestic turbines under SG RD3 is that domestic turbines (defined as those designed to offset domestic energy use with limited energy export) tend to be too small to negatively impact upon radar and other communication systems. However, there may be circumstances (e.g. in the case of a very large domestic property) where domestic turbines are in a location or are large enough to impact upon radar and other communication systems, or other considerations within SG RD2. While there are opportunities under other policies to consider landscape impact or impact on telecommunications, this distinction between domestic and commercial turbines would seem unnecessary. . .
- 2.9 The reasoned justification also notes the requirement to revise the supplementary guidance to provide a "spatial framework for windfarms over 20MW." This requirement arose out of the examination of the LDP, and it will be necessary for the next LDP to include detailed supplementary guidance on this issue. The proposals maps of the LDP are likely to also require to reflect this framework.

3. Background

National context

- 3.1 Scottish Planning Policy (SPP) provides strong support for onshore wind energy development, and other types of renewable energy development. Reflecting this stance, the SPP states that "development plans should support all scales of development associated with the generation of energy and heat from renewable sources." The support provided for renewable energy developments in the SPP is reflective of broader government targets for the reduction of greenhouse gas emissions and the production of electricity and heat from renewable sources. The Scottish Government recently published a revised 'Routemap for Renewable Energy for Scotland' which set out a target of 50% of electricity demand being met from renewable sources by 2015, ahead of a target of 100% of electricity demand being met from renewable sources by 2020. Although the Routemap for Renewable Energy sets out these challenging targets, it still highlights the "need to ensure that, as renewable penetration increases onshore, environmental and land use consideration are not compromised." The approach in the SPP echoes this concern by setting out a robust set of criteria against which *wind farm* proposals should be assessed:

- “landscape and visual impact,
- effects on the natural heritage and historic environment,
- contribution of the development to renewable energy generation targets,
- effect on the local and national economy and tourism and recreation interests,
- benefits and disbenefits for communities,
- aviation and telecommunications,
- noise and shadow flicker, and
- cumulative impact.”

- 3.2 The SPP is less clear on the assessment of smaller wind energy proposals, or other types of renewable energy development, stating that:

“Factors relevant to the consideration of applications will depend on the scale of the development and its relationship to with the surrounding area, but are likely to include impact on the landscape, historic environment, natural heritage and water environment, amenity and communities, and any cumulative impacts that are likely to arise.”

SG RD2 extends the policy criteria applied to wind farms in SPP to the appraisal of all non-domestic wind turbines. This is a logical approach given that the specific issues raised by turbines will be similar to those raised by wind farms, though the degree of effect associated with wind farm proposals will tend to be greater than with smaller turbine proposals. The supplementary guidance does not, however, address “benefits and disbenefits to communities” or the “contribution of the development to renewable energy generation targets” as assessment criteria. Firstly, with regards benefits to communities, it is very rare for turbine proposals to provide tangible community benefits which also meet the tests set out in ‘Circular 1/2010: Planning Agreements.’ The SPP states that any community benefits associated with wind energy proposals should only be a material consideration in the determination of planning applications when they meet these tests, so it would be illogical to consider them as part of policy if they did not also meet the tests in Circular 1/2010: Planning Agreements. To consider other types of community benefit in the determination of applications would also allow wind energy developers to, in essence, buy consents by offering communities financial or other benefits. Given the above, it would be inappropriate for benefits to communities to be considered as part a revised SG RD2.

- 3.3 With regards disbenefits to communities, these are already taken account of through the consideration of amenity and tourism. The SPP does not provide examples of other community disbenefits which can result from wind energy developments. Given this, it is not necessary to alter the policy to consider other community disbenefits resulting from wind energy proposals.
- 3.4 Adding a policy criterion on the contribution of wind energy developments to targets for the production of energy from renewables could also be problematic. The determination of wind energy applications should be based on the quality of the proposal and, where there are any negative impacts, the potential to avoid, manage or mitigate them effectively. Considering the contribution of these developments to targets could potentially distort this decision making process. The existing policy approach also already takes a

positive stance towards wind energy developments in recognition of the contribution they make to renewables targets. It would therefore be inappropriate to amend SG RD2 to include a further criterion on this issue.

3.5 The SPP does not simply support a criteria based approach to the determination of wind energy applications, however. It also states that planning authorities should produce “a spatial framework for onshore wind turbines of over 20 megawatts generating capacity”, though “authorities may incorporate wind farms of less than 20 megawatts generating capacity in their spatial framework if considered appropriate.” Given that there has been a proliferation of relatively small wind energy developments in Aberdeenshire, rather than large wind farms, it would be appropriate for any spatial framework to also consider smaller wind energy developments. SPP states that spatial frameworks should identify:

- “areas requiring significant protection because they are designated for their national or international landscape or natural heritage value, are designated as green belt or are areas where the cumulative impact of existing and consented wind farms limits further development,
- areas with potential constraints where proposals will be considered on their individual merits against identified criteria, and
- areas of search where appropriate proposals are likely to be supported subject to detailed consideration against identified criteria.”

When identifying areas with potential constraints on wind farm development, planning authorities should consider the following:

- the historic environment,
- areas designated for their regional and local landscape or natural heritage value,
- tourism and recreation interests,
- likely impacts on communities, including long term and significant impact on amenity,
- impact on aviation and defence interests, particularly airport and aerodrome operation, flight activity, tactical training areas, aviation and defence radar and seismological recording, and
- impact on broadcasting installations, particularly maintaining transmission links.”

3.6 The Scottish Government’s planning advice on the ‘Process for preparing spatial frameworks for windfarms’ provides further information on the above approach, including clarification on the purpose of the spatial framework:

“the purpose is to guide wind turbine developments to appropriate locations, to maximise renewable energy potential and to minimise wasted effort and resources on inappropriately located proposals.”

It also states that spatial frameworks should be part of the development plan, rather than non-statutory planning advice. This point was reiterated in a letter from Fergus Ewing MP and Derek MacKay MP to COSLA which also identified the need for more funding and training for local authorities to allow them to deal with wind energy proposals more effectively. .

3.7 Further guidance on development plan policies and the assessment of wind turbine proposals is provided in the Scottish Government's planning advice on 'Onshore wind turbines.' This document again highlights the importance of identifying a spatial framework for wind turbines in development plans unless there is a reasoned justification for not doing so. When drafting policies on wind energy development, the advice highlights the importance of addressing the following:

"Ensure that wind policies provide clear guidance for applicants and:

- Cover design, including the number and height of turbines, location and supporting infrastructure
- Take into account the scale and character of the landscape
- Safeguard ecological, community, historic environment, aviation and defence interests
- Consider cumulative impacts and decommissioning
- Ensure that policies for all new development consider wind (and other renewables) as energy options where impacts can be managed
- Ensure guidance is provided on considering the cumulative effect of wind turbines
- Consult key consultees at an early stage on the drafting of wind energy policies
- Ensure the public are offered an 'early and effective' opportunity to engage in policy development and their environmental effects."

Whilst the current policy addresses most of these issues, as noted earlier there is no reference in the policy to the need to accord with any detailed guidance on the layout, siting and design of turbines. As also noted above, this should be remedied by adding a criterion stating that developments should take account of the detailed design guidance set out in the Aberdeenshire and Angus Landscape Capacity Study 2013.

3.8 Scottish Natural Heritage (SNH) also provides useful guidance on the production of spatial frameworks in 'Strategic Locational Guidance for Onshore Wind Farms in Respect of Natural Heritage' (The SNH study identifies 3 different zones – those of 'high natural heritage sensitivity to wind turbines' (zone 3), those of medium natural heritage sensitivity (zone 2) and those of lowest natural heritage sensitivity (zone 1). The process used to produce these areas is primarily based on local, national and international natural heritage designations. Zone 3 includes "areas whose landscape is protected at national or international level, while areas protected at a local or regional level are mapped within Zone 2." Zone 3 also includes areas identified for their "wildness" in recognition of the impact man-made structures such as turbines would have on the characteristics of these areas. However, there are no areas within Aberdeenshire which are considered sufficiently "wild" for inclusion within zone 3.

3.9 The consultative draft of the revised Strategic Locational Guidance for Onshore Wind Farms in Respect of Natural Heritage makes some relatively minor amendments to the original document. Perhaps the most notable amendment is the addition of sensitive peatland areas and carbon rich soils to zone 3. The consultation questions do address the possibility of more large scale changes, however, such as the incorporation the outcomes of landscape capacity studies in to the guidance. However, despite the minor

modifications, much of Aberdeenshire remains within zone 1 in the revised guidance. This suggests that from a natural heritage perspective Aberdeenshire has a significant capacity to accommodate wind turbine developments. However, this does not take account of a number of other factors which constrain wind energy development such as cumulative landscape impacts, landscape sensitivity outwith designations and the impact that turbines have on defence and civilian radar.

- 3.10 SEPA's guidance on strategic planning for wind energy developments also highlights a number of issues which should be addressed in development plans. It echoes the SPP by highlighting the importance of taking a spatial approach to policy on wind energy development, including the identification of areas of search for windfarms. It also states that policies should support wind energy development "where they can demonstrate that they will not have an unacceptable impact on:
- carbon balance;
 - soils and peatlands;
 - the water environment;
 - the marine environment;
 - flood risk; and
 - air quality"

These issues are addressed in other policies and supplementary guidance which are the subject of review, so it is unnecessary to address their adequacy in detail at this point.

- 3.11 The National Planning Framework 2 (NPF2) also identifies electricity and heat generation from renewable sources as a key part of its spatial strategy to 2030. As part of this spatial strategy a number of strategic sites are identified that will allow further expansion of wind energy development in Scotland. In addition, NPF2 identifies several locations where reinforcements to the electricity grid are required to allow the transmission of electricity generated from renewable sources including onshore wind. NPF2 also states that "development plans should include policies designed to promote sustainable development and contribute to the mitigation of, and adaptation to, climate change." SG Rural Development 2 helps to meet this requirement by supporting sensitively sited wind turbines which help to mitigate climate change.
- 3.12 Legislative changes under The Town and Country Planning (General Permitted Development) (Scotland) Amendment Order 2011 also affect our approach to the consideration of wind turbine developments. Circular 1/2012 clarifies that wind turbines within the curtilage of a dwellinghouse of an operating capacity of up to 50kw can be considered permitted development. However, developments are subject to a pre-approval procedure where it must also be demonstrated that they are "sited to minimise effects on the amenity of the area so far as reasonably practicable." As part of this pre-approval process applicants cannot commence development unless the applicant has received written approval from the planning authority in respect of the size and design of the wind turbine. Within this context it is appropriate for all scales of turbines to be assessed under the terms of SG RD2, even if this is just "good practice" in terms of a prior determination of a domestic microgeneration proposal

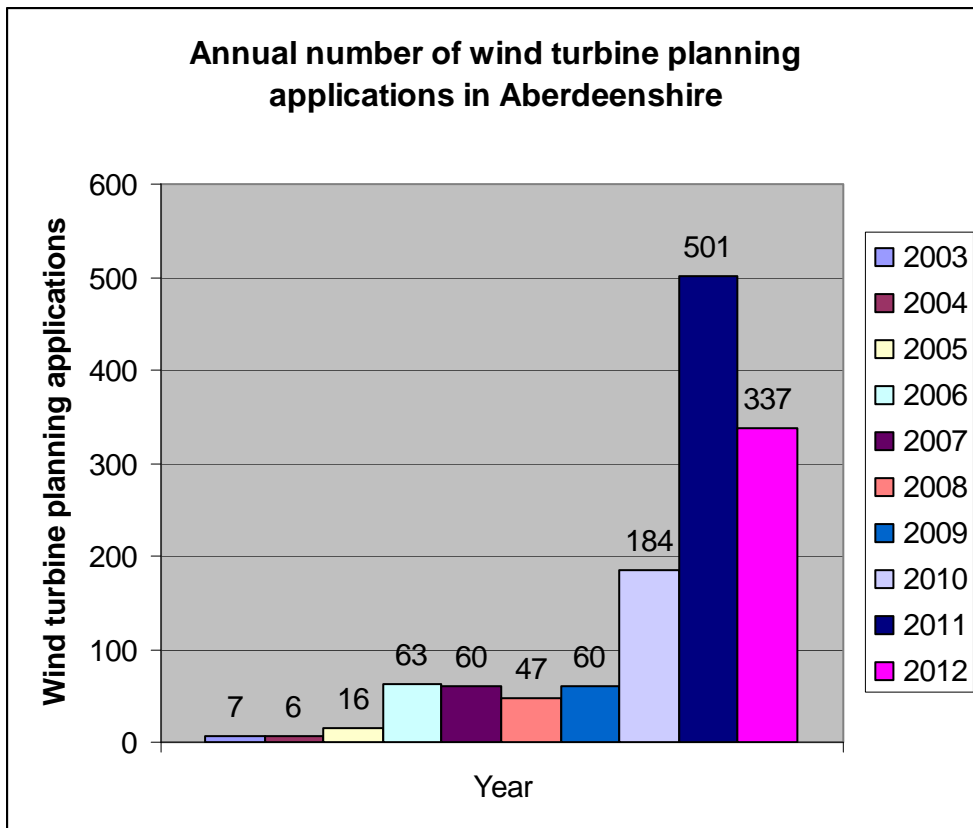
Strategic/regional context

3.13 One of the objectives of the The Aberdeen City and Shire Structure Plan 2009 is:

“To be a city region which takes the lead in reducing the amount of carbon dioxide released into the air, adapts to the effects of climate change and limits the amount of non-renewable resources it uses.”

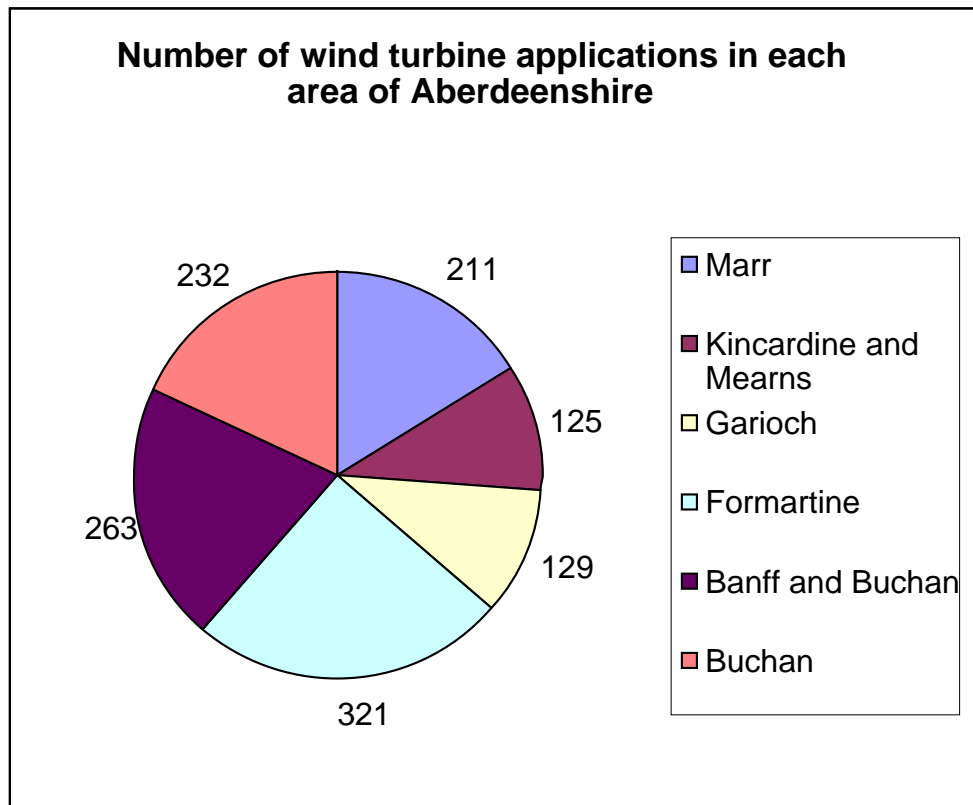
The Structure Plan sets out a number of targets to achieve this objective, including the production of enough electricity from renewable sources to meet the city region’s demand by 2020, approximately 2700 Gwh. The Proposed Aberdeen City and Shire Strategic Development Plan echoes this objective and sets the same target of producing enough electricity from renewable sources to meet demand by 2020.

3.14 The Feed in Tariff scheme (FIT), the excellent wind resource and grid connections in Aberdeenshire, and improvements in wind turbine technology have had a significant impact on the number of wind turbine developments proposed and constructed in Aberdeenshire. These factors have caused an exponential rise in the number of wind turbine applications submitted in Aberdeenshire. A total of 1281 planning applications for wind energy development had been submitted to Aberdeenshire Council by the end of 2012, with 1022 (approximately 80%) of those applications having been received since the start of 2010. The annual distribution of wind turbine applications in Aberdeenshire is shown in figure 1.



3.15 The scale of wind energy development in Aberdeenshire has gone some way towards meeting the target of 100% of the region’s electricity demand being met from renewable sources by 2020 The contribution to the installed

capacity, based on the efficiency of all renewable projects, has increased from 6% of total electricity consumption in 2008 to an estimated 44% in 2013. Applications for a further 20% capacity are currently being considered. However, as significant numbers of wind turbines have been consented and, subsequently, constructed, the significant impact of turbines on the Aberdeenshire's landscape has become increasingly apparent. The pressure for wind energy development has been felt most in the areas of Formartine, Banff and Buchan and Buchan where 816 of the 1281 applications have been submitted (see figure 2). In these areas, and in other parts of Aberdeenshire, cumulative impacts have therefore started to become a limiting factor on further wind turbine development. In addition to the impact on Aberdeenshire's landscape, the cumulative impact of wind turbine development on civil and defence radar has caused the MOD and NATS/BAA to object to many recent applications. Given the limited potential for mitigation, and the extent of the area in which wind turbines can impact on radar function, it is likely that cumulative impacts will become a significant constraint on wind turbine developments in Aberdeenshire.



3.16 The scale of wind turbine development since 2010 has become a significant concern for planners, elected members and local communities. It has caused some to suggest that Aberdeenshire is at capacity and that no further onshore wind energy development should be allowed. However, such a position is difficult to maintain given the political impetus on achieving targets for the production of energy from renewables and the associated support for onshore wind energy development in the SPP. There is also a lack of information on the strategic impact of wind turbine development on Aberdeenshire's landscape to support any alteration to policy approach. Taking cognisance of this, Aberdeenshire Council has, in association with SNH and Angus Council, commissioned Ironside Farrar to undertake a landscape capacity for wind turbines study. This project should provide a more complete understanding of

the areas in which further development can be sustained from a landscape perspective. It will also identify those areas in which further development is not sustainable from a landscape perspective, either due to the inherent sensitivity of the landscape character or the cumulative impact of other turbine developments. It is essential that the outcomes of this report are integrated into the spatial framework for wind turbines.

4. Drivers of change

- 4.1 Some minor modifications to the policy text are required to reduce duplication and ensure that the policy takes account of the potential impact of wind turbines on broadband internet transmissions.
- 4.2 To accord with Scottish Planning Policy and the outcome of the examination of the Aberdeenshire Local Development Plan 2012, a spatial framework for wind turbines must be produced. . The nature of the spatial framework will, in part, be dependent on the outcome of the Aberdeenshire and Angus Landscape Capacity Study which has been commissioned by SNH. Given the pattern of development in Aberdeenshire – which is dominated by developments of single or clusters of turbines rather than wind farms – the spatial framework will consider medium and large scale turbines as well as wind farms. The spatial framework will help in formulating a co-ordinated strategic response to the large scale wind turbine development currently taking place in Aberdeenshire. The need to produce, and consult upon this spatial framework , and the contentious nature of wind energy debates this subject should be considered as a main issue in the forthcoming Aberdeenshire Local Development Plan Main Issues Report 2013.
- 4.3 SG RD2 is currently used to assess all non-domestic turbines in Aberdeenshire, with domestic turbines being assessed under SG RD3. SG RD3 does not contain criteria on technical constraints relating to communication systems including radar. Best practice guidance suggests that the MOD should, within the relevant consultation zone, be consulted on any turbines of a height to tip greater than 11m. There is no reason why the criteria of SG RD2 should not be applied to smaller turbines so it would be appropriate for any turbines greater than those permitted under the Permitted Development Order to be considered under SG LSD2.
- 4.4 SG Natural Environment 2: Protection of the wider biodiversity and geodiversity should be modified to ensure that it provides greater protection for peatland areas from damage and disturbance.

5. Recommendations

- The title of the guidance should be changed to “wind farms and wind turbines”
- Criterion 2 should be deleted, with the need for appropriate set back distances noted in the reasoned justification instead.
- A criterion should be added stating the following:
“the proposal has taken account of the guidance on the layout, siting and design of wind turbines detailed in planning advice x”
- The reasoned justification should be amended to remove references to SG Rural Development 3

- A spatial framework for wind turbines should be produced in line with the guidance produced by the Scottish Government and Scottish Natural Heritage.
- The approach to planning for wind turbines, including the application of a spatial framework, should be the subject of debate through the Aberdeenshire Local Development Plan Main Issues Report 2013.
- A modification to SG Natural Environment 2 is required so that provides robust protection to peatland areas. The detail of the modification should be addressed in the relevant policy review.

6. Summary of main points

6.1 Whilst the policy criteria in SG Rural Development 2: Wind farms and medium to large wind turbines are relatively robust and require limited change, both the scale of wind energy development in Aberdeenshire and the requirements of the SPP and the examination of the LDP require a potentially significant change in approach. This change in approach should be based upon a spatial framework produced in line with Scottish Government and Scottish Natural Heritage guidance, as well as the outcomes of the Aberdeenshire and Angus Landscape Capacity Study 2013. The incorporation of such a framework into policy should be the subject of debate in the LDP Main Issues Report 2013. Additionally, the above analysis has suggested that the following modifications are required:

- The title of the guidance should be changed to “wind farms and wind turbines”
- Criterion 2 should be deleted, with the need for appropriate set back distances noted in the reasoned justification instead.
- A criterion should be added stating that proposals must take account of the guidance on the layout, siting and design of wind turbines detailed in planning advice x
- The reasoned justification should be amended to remove the reference to SG Rural Development 3.
- A modification to SG Natural Environment 2 is required so that it provides robust protection for peatland areas. The detail of the modification should be addressed in the relevant policy review.

References

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