Position Statement – National Planning Framework 4

Supplementary Paper – Peatlands and Carbon-Rich Soils

This document sets out Scottish Renewables members' views on what will need to be included in National Planning Framework 4 (NPF4) to deliver the level of renewable energy technology deployment needed to meet Scotland's Climate Change commitments and achieve net-zero by 2045.

SR believes NPF4 provides an opportunity to establish a pragmatic approach to development in peatlands that allows for well-designed and executed low-carbon development.

Introduction

Scottish Renewables and its members support the need to carefully manage Scotland's carbon-rich soils and extensive peatlands as a key part of our response to the Climate Emergency. It is important that as we work to tackle climate change and deliver a sustainable economy through renewable energy development, projects are developed sensitively in areas where peatland may be present. The renewable energy industry has demonstrated that peatland management and restoration can go hand-in-hand with responsible development.

Misconceptions

Peat protection is not a straightforward issue, yet unfortunately it is sometimes presented in polarised terms. It is important to recognise the following:

- The peatland and carbon-rich soil resource is not uniform in quality. A significant amount of it is degraded or degrading and releasing carbon to the atmosphere, rather than acting as a carbon store.[1] This is the result of historic land management practices: overgrazing, drainage, peat extraction for horticulture and fuel and other land uses such as inappropriate forestry.
- Wind farms and peatland can co-exist and there are numerous examples where windfarms have been constructed sensitively in areas where peat is present (case studies are presented below). These projects have demonstrated habitat restoration; good practice in peat reinstatement and construction techniques; use of 'floating roads'; rapid carbon payback rates; peat slide risk assessments; hydrology studies and minimisation of effects on Ground Water Dependent

[1] https://www.iucn-uk-peatlandprogramme.org/news/new-resource-available-explaining-impact-peatland-drainage

Terrestrial Ecosystems and; in some cases through planning conditions, significant investment in improvement of the surrounding peatland.

- Peatland is not of uniform depth and can be highly variable. Responsible wind farm and other renewable technology developers normally seek out the shallowest areas and rocky outcrops to locate infrastructure to avoid disturbing significant areas of peat depth as much as possible.

There are opponents of development in peatland areas including advocates of a ban, arguing that if the electricity grid is already 100% green, then any windfarm development on 'deep peat' will be negative. This is misleading in several respects.

Firstly, the all-energy grid, which encompasses transport and heating in addition to electricity, remains heavily fossil fuel intensive and requires significant amounts of new green electricity in order to decarbonise – a more detailed explanation of this is included in our NPF4 Supplementary Paper on Climate Change. The Carbon Calculator used to inform payback rates needs to be updated to include the all-energy grid in its calculations to complement planning policy reform to deliver new renewable energy generation targets and policy requirements.

Secondly, as above, developments in areas of peatland are not uniform in their impact, and developers can bring sensitive construction techniques focussing on minimising disturbance.

Thirdly, in many cases, restoration and habitat management can also improve areas of surrounding peatland that may be mismanaged or are degrading and not acting as carbon sinks.

Finally, the term 'deep peat' can also be misleading and is an unfortunate hangover from the Scottish Natural Heritage (SNH) 2014 consultation on the map and the classification of 'deep peat.' Such classification illustrates how perception of what constitutes an area of 'deep peat' can ill-inform public debate on this issue. The 2014 consultation document offered a definition of deep peat which conflicted with other published descriptions at the time, creating significant ambiguity. This definition is critical given that Scottish Planning Policy (SPP) 2014 directly references 'deep peat.' The approach used by SNH in developing the map is based on the Scottish soil classification which is clear that an organic soil can only be described as peat when its depth exceeds 0.5m. Using this approach, it is therefore misleading to assume that all peat over 0.5m is 'deep.' Table 2 of the SNH Report No. 701 indicates that deep peat would be >1m. [2]

The Existing Policy Framework

The level of assessment and regulation of renewable energy development in, on and around carbon-rich soils is disproportionate to other industries, including some of those responsible for peat degradation (as listed above). This is despite the significant contribution that the renewable energy sector brings to carbon reduction targets. We would argue that a more pragmatic and equitable approach would be for all land use to be subject to the same policy test.

While the current SPP requires strategic consideration of carbon-rich soils under Table 1 (only in relation to renewables) and requires consideration of the carbon calculator in SPP 169 (only in relation to

[2] http://www.snh.org.uk/pdfs/publications/commissioned_reports/701.pdf

renewables), SPP 241 continues to permit commercial peat extraction. In the meantime, other industries can continue with often substantial levels of unregulated peat disturbance under permitted development rights (PDR). The same activities in renewable development are subject to full-scale EIA and detailed scrutiny by consultees during consenting, construction and operational phases, generally at significant cost to the developer/operator.

The EIA process requires developers to thoroughly investigate the extent and quality of carbon-rich soils in any location. A range of techniques, including peat depth probing and slide risk assessment are used. This in turn quantifies the potential impact and identifies how any development can minimise it. A carbon calculation then works out how quickly any carbon impact can be 'paid back' from the resulting generation of green energy. The timescales for this can vary and can be as little as a few months for some developments. The Strathy South wind farm project in the Flow Country in Sutherland estimates a payback time of just 1.1 years. Not all projects are equal, and no area of peat is the same, and the EIA process is the most accurate and reliable method for identifying impact and best methods for minimising it.

Policy Recommendations for NPF4

There is a need for clarification in policy and terminology in NPF4. We would question whether depth is relevant to the decision-making process and categorisation if the peat is 1m deep as opposed to 0.75m or 0.5m. Rather than using the term 'deep peat,' we would argue that the ecology and condition of the carbon-rich soil habitat and the assessment of impact on the site with project-specific information should be the key considerations.

The map of carbon-rich soils is a useful resource at a high level to inform project development, but its use in the spatial framework process is severely limited, given the site-specific variability of the extent and quality of peatland in any specific location. Indeed, the consultation document produced by SNH in 2014 recognised that "*changes in peat depth and conditions over short distance cannot be described by the Carbon and Peatland (2014) map which is not an alternative to a detailed peat survey*."

The requirement that development plans include a carbon-rich soils map should be reviewed. If retained, the significant limitations of the map and its associated high-level data should be more explicitly acknowledged. The ability to develop renewable energy projects in areas of carbon-rich soils in a careful way so that peatland is well managed (in accordance with the joint industry-agency guidance 'Good Practice During Windfarm Construction') and, in many cases, subject to significant restoration work should also be recognised.[3]

The map offers developers and stakeholders a resource to understand what carbon-rich soils issues may be encountered and could be simply referred to as a 'mapped interest' for that purpose rather than be used as a spatial planning constraint. NPF4 should explicitly state that the EIA process determines the degree of effects to inform acceptability overall through the development management process.

[3] https://www.nature.scot/professional-advice/planning-and-development/advice-planners-and-developers/renewable-energy-development/onshore-wind-energy/wind-farm-construction

This would be pragmatic and allow for more practical and evidence informed decision making. The EIA process is key to identifying the actual impact of a potential development and what design, siting or mitigation effects may be required.

Case Studies

There are numerous examples of positive management and sensitive approaches to development to illustrate how renewable energy development and peatland restoration can go hand in hand.

Scottish Power Renewables

Scottish Power Renewables (SPR) currently manages approximately 8,500 ha of peatland habitat and has spent £2.5m on peatland restoration and research in the last 10 years (circa. £1m on research, £1.5m on restoration).

Their research into restoration of blanket bog from commercial forestry plantations has led to a practical, scalable methodology being developed for the first time which is now also being used for conservation by organisations including RSPB, SNH and FLS. As a result, in 2018 SPR were invited by the IUCN Commission of Inquiry into Peatlands to be lead authors of a report describing the impacts of forestry on peatlands and the efficacy of the approach SPR developed to restore these habitats.

The report is now published on the IUCN website and represents the current state of knowledge on this subject, largely underpinned by the pioneering research undertaken by SPR on their windfarms.[4] The importance of this work to the wider conservation community was recognised by RSPB at the 2015 Nature of Scotland awards where SPR were awarded the Sustainable Development Award for their innovative bog restoration work. A video was produced in 2019 highlighting SPR's ongoing commitment to 'restoring 8,500 hectares (ha)of degraded bog.'[5]

Roughly 4000ha of the total peatland area managed by SPR is unplanted blanket bog, which have typically been historically damaged by a combination of drainage, overgrazing and burning. Following a review of the pre-existing methods to restore these types of peatland, SPR setup further research to develop new techniques which could achieve enhanced restoration over very large areas at significantly reduced cost. The existing grant funding available for ditch blocking is £13/peat dam.[6] If dams are installed at 5m intervals (to achieve maximum benefit) this equates to £2600/km. SPR have developed a technique to significantly increase the speed at which peat dams can be constructed, resulting in a cost of around £350/km – a huge cost saving, also combined with reduced ground disturbance, and which is now being adopted by SNH PeatlandACTION as their preferred method of ditch blocking.[7]

[4] https://www.iucn-uk-peatlandprogramme.org/sites/default/files/2020-01/CoI Forestry and Peatlands_reduced size.pdf

[5] https://www.scottishpowerrenewables.com/pages/enhancing_the_environment.aspx

[6] https://www.ruralpayments.org/topics/all-schemes/agri-environment-climate-scheme/management-options-and-capital-items/ditch-blocking---peat-dams/

[7] https://www.nature.scot/sites/default/files/2018-03/Guidance-Peatland-Action-2017-18-Peatland-Action-and-SRDP-AECS-Funding.pdf

Innogy

Innogy's Bad a Cheo 13 turbine wind farm in Caithness saw the restoration of around 39 ha of degraded peatland, which was accomplished by using pre-existing peat turves from the wind farm construction to build dams along ~15.5km of drains. Costs associated with ditch blocking were estimated to be ~£30,000.

At the Glen Kyllachy 20 turbine wind farm site south of Inverness, Innogy will be completing peatland restoration during construction, which involves restoring a ~53 ha area classified as 'moderately' degraded peat. It is envisaged that this will be done in a similar manner to that at Bad a Cheo, using pre-existing materials on site (i.e. peat turves) and blocking drains.

EnergieKontor

Elsewhere in the UK, EnergieKontor's 12 wind turbine site on 176 ha of Oswaldtwistle Moor, Lancashire included c. £126k of moorland restoration works which were completed in 2012. The project completed 3 years of monitoring to 2015/16.

In 2009, the nature conservation value of Oswaldwistle Moorland was low (PAA, 2009), due to past drainage, grazing and wildfire. A 'practical restoration plan' focussed on: restoring areas of turbine bases, road verges, cable runs; removing grazing; and revegetation of bare and damaged peat, and damming of main drains & gullies. 5 ha of land was used for wind turbine infrastructure and roads, whilst 176 ha were subject to significant restoration.

This project has mitigated the impact of the wind farm development on the overall moorland and enhanced water retention to slow the transition of water through the landscape to inhibit events that cause flooding and wildfire. The project has improved the conditions for peat forming plant species, including sphagnum mosses, which lock in carbon to the landscape. The area is proposed now as part of the West Pennine Moors Site of Special Scientific Interest. The habitat works generated 12 jobs in the local area over 18 months and continues to employ local people.

Vattenfall

In Wales, Vattenfall's Pen y Cymoedd Wind Farm will be home to one of the largest peatland restoration projects in Southern Britain. £3m funding will help restore over 540 ha of neglected landscape and habitat, once known as the Alps of Glamorgan.

When launched in August 2019, Rebecca Sharp, the Lost Peatlands project lead and NPT County Ecologist stated: 'The project's aim is to re-discover and restore a forgotten landscape and kick-start the restoration of one of the largest interconnected peat resources in the UK, contributing towards tackling climate change, fire and flooding issues and declines in biodiversity. The project will also support local communities and visitors to enjoy this outdoor environment, get active, gain skills and learn about the rich heritage on their doorstep.'[8]

[8] https://group.vattenfall.com/uk/newsroom/news-press-releases/News/2019/opening-the-doors-to-the-lost-peatlands-of-south-wales

Future Restoration Activity

SSE Renewables

SSE Renewables' Strathy South and Viking projects intend to restore and regenerate significant areas of already damaged peatland on the sites. The Reporter's conclusions in the Strathy South Public Inquiry Report highlights that: [9]

- Commercial forestry has damaged peatland on the application site. Its removal is endorsed by parties and would be of benefit to the site and surrounding peatland.
- On the application site, in the context of previous projects, restoration would provide a considerable and significant area of restored peatland habitat over a progressive period (0-25 years).
- The estimated levels of peat extraction would not equate to a significant volume when considered in the context of the site or the wider SAC designation.
- Extracted peat could be successfully re-instated, moved, stored, maintained and used in restoration.
- Peat extraction would provide a useful field of research for the Environmental Research Institute in Thurso which could inform practice.
- The restoration of the application site would not draw on peatland restoration funds which could therefore be used elsewhere.
- The use of floating roads would help to minimise peatland impacts and allow areas of peat to 'communicate' with hydro-connectivity retained.
- It is not appropriate in the context of determining the proposed development to second-guess the nomination and designation process for the Flow Country World Heritage Site. However, overall, it is likely the proposed development would have a neutral effect on any application with the benefits of restoration balancing the impacts on habitat and protected species.
- The proposal would not be likely to have a significant effect, either directly or indirectly, on the Caithness and Sutherland Peatlands Special Area of Conservation.

As referred to previously, the carbon payback period for the Strathy South project was confirmed following substantial examination by the DPEA where the Reporter also concluded that: 'Scottish Ministers can have confidence in using the figure of 1.1 years expected carbon payback period as a material consideration in their decision making.'

The above case studies demonstrate the potential for the substantial and mutual benefits of wind farm development and sensitive peatland management or restoration in areas where peat may be present. Further detail and case study information is available on request.

[9] http://dpea.scotland.gov.uk/Document.aspx?id=517268

Conclusion

While we support the need to carefully manage Scotland's carbon-rich soils and extensive peatlands, a more pragmatic approach to development should be set out in NPF4 which recognises variations in peatland depth and quality.

Rather than take a more restrictive approach to development in areas of 'deep peat,' each project should be assessed on its own merit. Careful attention to the EIA process and carbon payback calculations against the carbon intensity of the all-energy grid, combined with positive restoration and habitat and construction management conditions to minimise any unnecessary peatland losses if necessary, should be at the core of decision making.

It should be made clear that the mapped resource should have no place in development determination of an individual application except to point the applicant and the consenting authority to the need to examine this resource through EIA.

NPF4 should specify that the carbon-rich soils map amounts to a high-level 'mapped interest' and is not sophisticated nor detailed enough to determine acceptability. If the map is perceived as identifying 'no-go' areas for development, or used for that purpose at the local consultative level, its purpose will have been to inject unnecessary conflict into the development process and the creation of an unnecessary barrier to addressing the Climate Emergency.