



Update on hilltracks
Telecom masts & wild land
Wind energy reality check
Renewable energy
– A view from the ground

Wild Land News

Magazine of the Scottish Wild Land Group

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WILD LAND NEWS

Issue 103

Magazine of the
Scottish Wild Land Group

SWLG

www.swlg.org.uk
admin@swlg.org.uk
8 Cleveden Road
Glasgow G12 0NT
Scottish Charitable Incorporated
Organisation No. SC051654

SWLG Convenor

Pete Ewing

Membership Secretary

Grant Cornwallis

Treasurer

Tim Ambrose

WLN Editor

James Fenton
admin@swlg.org.uk
Please send in contributions.
Individual articles do not
necessarily reflect the views of
the SWLG Steering Team.

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Front cover: Farr Windfarm

Left: Ben Lui

Photos: James Fenton



Editorial

The remaining wild land in Scotland seems to be under greater threat than ever. The threat comes from two main sources, both justified these days under the ‘climate change mitigation’ banner: an increase in forestry planting as discussed in the previous issue (*WLN 102*) and a massive expansion in onshore renewable energy infrastructure, which is the focus of this issue.

Norman McNab’s excellent article gives an insight into how the privatisation of the UK’s energy generation, combined with the government pulling back from any coherent overall energy policy, has resulted in the *ad hoc* development of windfarms – without any long-term thought on how the future energy system of the UK will cope as it moves from full-time to intermittent power sources.

Norman concludes that, although posited as cheap energy, when looked at with a ‘whole system analysis’, windfarms are one of the most expensive. If our wild land is to be lost through new infrastructure, we at least need to know that the system will work!

Peter Dunn’s article shows how local people are beginning to take up arms against mega-windfarms and their associated pylon lines and substations

which are being planned across the country. Communities feel that these are being foisted on them without them having any say in the matter. Action groups are being set up and there are signs that at least some politicians are beginning to sit up and take notice. But the renewable energy lobby is strong, and with the ‘saving the planet’ catchphrase, takes many people along with them: this includes the Scottish Government who rarely show concern about the Scottish landscape.

And, of course, every new windfarm, dam, pylon line, substation, forestry plantation and telecom mast have to have new vehicle tracks built to service them. Beryl Leatherland, in her article, gives an update on the Hilltracks Campaign: there seems to be little end in sight to new tracks being bulldozed into our hills. As the article on telecom masts shows, the increase in rural network connectivity will contribute to the ongoing loss of wildness...

Would it not be great if politicians from all parties stood up for the Scottish landscape, stating that to keep some areas wild is as important as climate change mitigation. For, as the American poet Gary Snyder once said

“This living, flowing land is all there is, forever.”

SCOTTISH WILD LAND GROUP

NOTICE OF AGM

Saturday 2nd December 2023

Bridge of Allan

Parish Church Hall (Honeyman Hall)

21 Keir Street

walking distance from Bridge of Allan Station

Lunch from 1.30pm

AGM 2pm

Talk c.2.30pm

Finish 4pm

The AGM papers will be available on the AGM tab of the SWLG website www.swlg.org.uk from 1st November. If you are unable to access them online, please write to Tim Ambrose at 8 Cleveden Road, Glasgow G12 0NT for a copy

If you are unable to attend the AGM in person, please complete and return a proxy voting form by Friday 1st December

Illustrated Talk

The Wild Landscapes of Greenland

By James Fenton

Editor Wild Land News

Author of A Field Guide to Ice



ARE YOU CONCERNED ABOUT THE FATE OF WILD LAND IN SCOTLAND?

VOLUNTEER NEEDED

There is an avalanche of applications for renewable energy developments across Scotland, many of them impacting on wild land. Examples include:

Scoop Hill Community Windfarm, located 5km south east of Moffat and 11km north east of Lockerbie in the Planning Authority area of Dumfries and Galloway Council, consisting of 75 wind turbines and associated infrastructure.

Dorenell Extension Windfarm: The proposed development is up to 104 wind turbines, each up to a maximum tip height of 200 m and includes additional infrastructure. The Site covers 3,500 ha approximately 10 km south of Dufftown in Moray and is located entirely within the administrative boundary of Moray Council.

Skye: Nine wind farms are proposed for the Isle of Skye. Over 140 turbines, most 200 metres high are planned, together with overhead pylons and massive trenches to take the power from the island south.

Loch Awe: Local communities are concerned about an 'avalanche' of renewable energy developments, of being surrounded by 11 proposed mega projects.

Future applications include the **Earba Pumped Storage Scheme** south of Loch Laggan (see WLN 102). The list goes on...

Under the current government in Scotland we aren't going to manage to get some relief from this intensive level of development – see *Peter Dunn's article on page 20* – but we could maybe achieve some amelioration and better mitigation.

SWLG is therefore seeking a volunteer to assist SWLG in scrutinising applications and determining what SWLG's response should be.

Ideally there should have with some planning expertise/ knowledge of electricity generation/ landscape...

They would work from home, but have the support of SWLG committee members. **If interested, contact admin@swlg.org.uk**

Beryl Leatherland

Update on Hilltracks Campaign

An update of action since January 2022

After 11 years to date, SWLG represented by me, with Helen Todd of Ramblers Scotland, continues to co-convene the LINK Hilltracks Campaign. Members will recall that after our initial huge success with achieving a new Order in 2014 requiring landowners to submit a Prior Approval application to their local authority, we have continued to press for all hilltracks, for whatever purpose, to have full planning permission to be required for their construction.

Currently, the Scottish Government legislation is wending its tortuous progress through various phases of the General Permitted Development Rights [PDR] consultation. We would like PDR to be removed for hilltracks, and instead for full planning

applications to be mandatory. We were promised by the then Planning Minister, Kevin Stewart, after a social media backlash caused by the failure to make the relevant amendment from Andy Wightman in the new Planning Act, that hilltracks would be included in Phase 1 of this, we are now in Phase 3 – which is quite an interesting one as it covers domestic renewable systems.

No consultation on hilltracks is yet in sight, however, although we did submit some comments on upland tracks in a previous consultation phase when telecom masts were consulted on, as these inevitably require tracks to be constructed, often in controversial locations, but with little if any oversight. This has become a big conservation issue with the government’s plans for nationwide coverage for telecoms technology.

Hilltracks have become a big issue

A bulldozed track for estate use above Loch Creran in Argyll





An example in Wester Ross of how use of ATVs causes landscape damage. To avoid further damage the route often becomes formalised into a vehicle track as visible in the top left of this picture. This illustrates how landowners can justify the creation of new tracks in wild areas

Mountaineering Scotland have taken up the challenge to lead monitoring and action on that front.

We have challenged the absence of hilltracks from the PDR consultation to date and in spring of 2023 asked both the current Planning Minister, Joe Fitzpatrick [we are now on our fourth Minister and these breaks in continuity have increased our workload, to put it mildly] and the Chief Planner, Fiona Simpson, for a meeting. As usual, the minister ignored us, which seems to be standard practice for SNP ministers when they don't want to confront an issue where they are failing.

However, we met with the Chief Planner, her assistant and a representative from the Development Management team. After listening

patiently to the inevitable “excuses” around the pandemic and cost of living, the small size of their planning team as some of them had been allocated to other work, and the multi-faceted nature of land management, we were told that the government view is that local authorities should be using their enforcement powers [we did point out that planning teams were not adequately resourced either financially or with personnel to do this] to achieve better outcomes.

However, we were assured that there is still a commitment to include hilltracks in a future phase of the consultation, and the Chief Planner would raise the issue at her next meeting with Heads of Planning and

remind them of the importance of developers following the Nature Scot guidance on hilltrack construction. Helen subsequently wrote to the Chief Planner thanking her for the meeting and, for future reference, took the opportunity to re-state these assurances.

Over the year we have continued to monitor for new hilltrack proposals, via a small but loyal and reliable team of trackers. We scrutinise on a weekly basis local authority planning portals in the Highland Council and the authorities around the Cairngorms National Park, as these are the areas where most problems occur. When appropriate, we submit comments on specific development proposals. However, unlike with a full planning application, there is no formal democratic procedure to object to Prior Notification, and local authorities aren't required to take on board our comments, but we find that in practice the planning officers do heed our observations and concerns. Indeed, I think that our comments on the

justification of each track, the possible impacts on ecology and species, the likely landscape impacts, especially where there is a designation such as a Wild Land Area, and the appropriateness of the construction and restoration techniques to be applied are useful to them in reducing their workload! If we did not do this then most hilltracks drawn to their attention would be granted approval by default after 21 days, as planners simply do not have time to scrutinise Prior Approvals properly, if at all.

One of the main problems is that developers continue to fail to justify hilltrack construction on appropriate grounds, often citing "to improve animal welfare" or "to improve access" – the latter requires a full application. There is a lot of apparent "confusion" around repair and maintenance – with both of these often resulting in a substantial change to the features of a track, which can result in a completely new construction that merely follows the line of an old path. Some old and



Vehicle tracks can become corridors for invasive species. Here gorse and broom are following a forestry track in an area of Wester Ross where both species were previously absent



An old stalkers' path which has been converted to a vehicle track north of Càrn Ghlusaid, Inverness-shire

valued stalkers' paths have been destroyed by this loophole.

Recently we have achieved some notable success, for example in the case of a proposal to dig a 4X4 track from Barrisdale to Loch Quoich, for no apparent justification. This would have involved some rock blasting and an unsightly and unnecessary intrusion in one of Scotland's last unspoilt landscapes. The estate had started to construct this path in a very intrusive manner, from the Barrisdale end without any application having been submitted, so this was a partly retrospective full application. I objected on several grounds, as did some of our allies. The application was refused. In other cases, after submitting comments, we have found that development proposals have been withdrawn – this might not be due entirely to our comments of course.

We are aware that unauthorised tracks are being built in various locations, and

we rely on members of the public alerting us to those. The restrictions to travel during the pandemic provided an ideal opportunity for such track construction. If members see any suspect tracks or badly constructed ones when they are out and about we should appreciate them sending us photos, locations, dates etc so that we can pursue their legitimacy with the relevant local authority.

Unauthorised tracks are still being built

Beryl Leatherland was previously SWLG's Convenor and is currently the groups' representative on Scottish Environment Link.

For further information on the Hilltracks Campaign, see www.scotlink.org

All photos James Fenton

Landscape issues with new telecom masts

Several conservation organisations, including the Scottish Wild Land Group, have signed a joint *Position Statement on the development of telecom masts in remote and wild areas*. This relates to the strong push to increase network connectivity across Scotland through the Shared Rural Network (SRN), the Emergency Services Network, and the Scottish 4G Infill Programme.

The concerns centre around four main issues:

1. Geographic rather than needs-based target – the SRN’s ambition to provide 95% geographical coverage of the UK means that masts are being proposed in wild and remote areas where there will be little to no benefit for rural communities.

2. Landscape impacts – extensive new access tracks are being proposed to site masts in wild and remote areas, which will significantly impact the landscape.

3. Lack of detail in planning applications – a proper assessment of the impacts of the developments may be hindered by a lack of site-specific information in the planning applications, particularly regarding construction and restoration methods, how masts will be maintained and powered (e.g. by carbon dioxide-emitting generators) and the resulting pollution (both carbon dioxide and noise); this is compounded by a lack of capacity in local authorities to deal with the high quantity of applications.

4. Lack of meaningful community consultation – the time pressure to deliver the target of 95% coverage by 2025 has resulted in a lack of meaningful community consultation and may mean that the adverse impacts of the developments are not properly considered.



The mast mast above the
Bealach na Bà, Applecross
Photo. James Fenton

The Position Statement suggests the following approach to resolve these issues:

1. Community consultation.

Consultation with rural communities is required to establish their needs; an important consideration in the expansion of network connectivity in Scotland. A local needs assessment as the principal factor in identifying possible mast locations would ensure that new masts are only considered where there is a clear need.

2. The construction of new access tracks is avoided unless the need is clearly demonstrated and no other method is possible.

New access tracks significantly impact the landscape and so alternative access methods, such as the use of ATV for maintenance, should be used unless totally impractical.

3. Local Authorities require additional dedicated resources to deal with the increased quantity of planning applications.

Delays to the 2025 deadline are inevitable where Local Authorities are not given the resources to interrogate applications thoroughly.

4. Avoidance of Wild Land Areas, sensitive areas, irreplaceable habitats and protected areas is best practice.

Our mountains, ancient woodlands and best remaining examples of wild land can be protected by avoiding them as part of the initial investigations undertaken by the Operators.

5. Operators will share infrastructure wherever possible, new masts will only be considered where there is no viable option of sharing.

Sharing infrastructure is both commercially prudent and environmentally sensible.

The organisations are currently in consultation with the various parties involved to see if the issues can be resolved. The full position statement is on the John Muir Trust [website](#).

The signatories to the statement are:

- Action to Protect Rural Scotland
- Community Land Scotland
- John Muir Trust
- Mountaineering Scotland
- North-East Mountain Trust
- Ramblers Scotland
- Scottish Wild Land Group
- The Knoydart Foundation
- The Munro Society
- The National Trust for Scotland
- Woodland Trust Scotland

Below: The access to the mast on Cliff Hill, Poolewe, Wester Ross. Photo. James Fenton



Norman McNab

Wind energy – A reality check

Organisations such as the Scottish Wild Land Group (SWLG), the John Muir trust and Mountaineering Scotland oppose on-shore windfarm development in areas designated as Wild Land, but their resolve and that of many of their members, is undermined by the very effective propaganda of the Renewables Industry which claims that wind power is cheap and green, a position that is backed by major energy companies like SSE and ScottishPower.

Wind energy is the most expensive

Faced with the statement that wind power is cheap and green, opposition is viewed as short-sighted, selfish and irresponsible because greenhouse gas emissions are a proven threat to planet Earth. Indeed, every form of business likes to dress its marketing material with an iconic image of a wind turbine. Such is the effectiveness of the renewable industry's lobbying of politicians of all persuasions, that all the political parties have, in their desire to woo voters, adopted wind power as their promise to deliver a future of cheap power and simultaneously 'save the planet'. In locations, where local opposition is anticipated, community payments are offered. Essentially a bribe.

There is a problem, though, and it goes much further than protecting wild land; wind power is not cheap. On the contrary, it is probably the most

expensive way of supplying a country's energy needs. Furthermore, a reliance on wind power as the nation's major future source of energy is to put the security of the national grid in real jeopardy. The first statement is, for the lay person, counter-intuitive. After all wind is free fuel. We could liken those that ridicule the claim that wind power is very expensive, to how Galileo was called a heretic for claiming the earth circled the sun, since that also was counter-intuitive to the lay observers.

Like Galileo, a skilled physicist and astronomer, electricity power generation and transmission is challenging to understand when the vital 'whole system analysis' is undertaken. I explain what I mean by a 'whole system analysis' in the note at the end, but first some basic background as to why wind power is expensive.

1. Power output of a proposed windfarm is always quoted and translated for lay persons into 'x number of homes powered'. This is intentionally misleading, since the average capacity factor for an on-shore wind farm is about 35%. This means that the annualised contribution of energy is only one third of the power figure quoted in megawatts. Operators quote power output and rarely the important figure, which is the actual energy produced,



© N. McNab

i.e. the megawatt hours. The remaining two thirds of the power has to come from nuclear, combined cycle gas turbine (CCGT) driven generation, biofuel generation and, for the UK, a miniscule hydro contribution.

2. Wind generators are not synchronously connected to the grid like conventional generators such as coal, gas & nuclear, so cannot provide the essential inertia of conventional generators. This is a difficult issue for those that do not have a physics or engineering background; put simply, inertia provides vital stability and fault protection. This means that synchronous compensators have to be strategically deployed at key points in the grid. Essentially these are very large AC electric motors coupled to large mass flywheels and connected permanently to the grid.

3. In an advanced country, industry, business and householders expect, indeed must be able to use as much, or as little energy whenever they require it with a delay measured in just

a few milliseconds, *i.e.* the power network must have the capability of dispatching energy constantly in step with demand. Operating a power grid and delivering electricity in real time to consumers is a logistical and technical challenge far greater than for any other product market. The power grid is tasked with delivering an invisible product, which cannot be stored, to customers who expect to receive it at the exact same second they need it. Grid operation is just-in-time management in its most extreme form. Moreover, if demand exceeds supply by even a small margin, there is a very significant chance that the whole system will collapse (blackout).

To avoid this the System Operator must have dispatchable generation resources always available. From the earliest days this has been a core feature of the electricity supply industry. Wind generation is highly variable and unpredictable and cannot meet the essential dispatchable criteria. As long as wind represented a small proportion of the total



generation resource this did not present a problem. Government, with powerful lobbying from environmentalists, has now committed to effectively meet all the UK's energy needs from renewables, with an emphasis on onshore deployment, particularly in Scotland. (The Scottish Government has ruled out nuclear, but Westminster has committed to a significant nuclear investment.)

4. Conventional thermal generators, using the stored high-density energy of fossil or nuclear fuels, have capacity factors of between 85% and 90%. It cannot be 100% because of outages for maintenance and refuelling (nuclear), but it is a simple expedient to spread the energy demand across a number of power stations to cover outages and unpredictable plant failures. As stated, wind power is not dispatchable so the only way to make it so is to provide an energy storage solution. The Scottish Government's 'Energy Strategy and Just Transition Strategy Paper' suggests pump storage and hydrogen will be the solution but

makes no attempt to assess the scale and cost implications. Unfortunately, this is where the real pain and cost reside. Perhaps because it is such an ugly tale it has not been told.

5. What then are the implications for Scotland's Wild Land?

In one word, dire. By 2050 the electrical powering of all transport and heating will more than double the existing required generation demand. To achieve this, the onshore wind estate will need to be up to ten times its current level with a storage capacity of almost unimaginable size. To put this into some form of context I would suggest that pump storage will be the first call. Pump storage is an extremely useful tool for the power systems energy dispatcher because the time to start producing power involves minimal delay and is synchronous. It is an important resource to balance short term load changes, or unexpected plant outages. For example, the Loch Awe Cruachan pump storage system can produce 440 MW and run for

upwards of 17 hours. This equates to almost 7.5 GigaWatt hours of energy.

6. How many Cruachans would be needed to support the politicians' dream? The problem arises from wind's unpredictability. It is not unprecedented for the Scottish wind fleet to be effectively becalmed for a period of three weeks. Even more worryingly, the whole UK and Western Europe can be under the influence of a large anticyclone or even a wide shallow low pressure system, where any contribution from wind is reduced to the trivial and interconnection to import energy from Europe might not be possible. To give some idea of the magnitude of this problem, from 25th May to 18th June 2023, Scotland was forced to import between one and almost three Gigawatts of power almost every day (average Scottish winter demand is almost five Gigawatt). The actual mean hourly

transfer amounted to 500 MW, despite Torness operating at full power.

Fortunately for Scotland, on this occasion, the south of England and hence the southern North Sea wind fleet were generating. This resulted in an import of 500 MW over the three-week spell of little or no wind in Scotland, amounting to over 250 GWhr, or the stored energy of 33 pump storage schemes the size of Cruachan. To take the analogy further, if Torness had been decommissioned then the required number of Cruachan pump storage schemes would have needed to be 100! In addition, Scotland has the very important contribution of up to 1200 MW from the gas-powered Peterhead power station. I leave readers to contemplate what happens when the electricity demand increases by 100% and there is no Torness and no Peterhead.



Creag Riabhach Windfarm, Strath Vagastie, Sutherland

Photo. Norman McNab

The SSE Coire Glas Great Glen scheme claims an energy storage capacity of 17G Whr which alone could power Scotland for about 8 hours at our current level of demand. To meet Scotland's needs by 2050 and to cater for a three-week windless spell would require possibly 100 Coire Glas schemes.

7. It will never happen because not only is it beyond Scotland's physical geography, it would be astronomically expensive and fails to consider the associated transmission infrastructure that would be required with the consequential devastating destruction of peatland.

8. Battery technology is presently only capable of short storage support, ranging from minutes to hours and can be discounted. There are many other storage solutions such as molten salt heat batteries and heating fluids stored in abandoned mines, *etc.* All fail on the scale required.

9. This leaves hydrogen produced by electrolysis, using surplus wind power. While technically feasible and currently working at a small scale, there are many challenging issues to scale the storage and distribution to anywhere close to the proposed need, not least the need to store it at cryogenic temperatures and extreme pressure. The only simple green application is as a fuel cell component since combustion in air creates very large amounts of nitrous oxides, unless very complex catalyst and flame control techniques are used. Moreover, the process of electrolysis and subsequent reversion to

electrical energy incurs significant losses. Put simply, using hydrogen to compensate for wind's intermittent character, will be very expensive.

10. The case for nuclear? I am reluctant to suggest that the only way to address the problem is to make a case for nuclear and the retention of CCGT gas generation with carbon capture as a standby resource when the wind is not blowing. Many expert engineers believe that there is a strong case because nuclear, in addition to very low carbon emission, has all the attributes that wind lacks, *viz* it is dispatchable, synchronous, provides inertia and requires modest land area and hence is a cheaper source of energy than wind – but this is not the place to set out the arguments for and against. Another possibility is load shedding and reliance on consumers installing their own battery storage. A kind of 'green' off-grid, third world solution.

11. What is certain is that unless, or until, some intelligence is injected into governance, the destruction of Scotland's landscape will gather pace over the next ten years.

Returning to the concept of a 'Whole System' analysis, it is clear that any strategy, dependent on wind, is a strategy which will result in very expensive electricity. The capital and interest charges alone would be crippling.

There is a more fundamental problem; the generation of electrical energy contributes about 20% of the UK's emissions and because 50% of the



© N. McNab

Creag Riabhach Windfarm

Photo. Norman McNab

UK's emissions are off-shored in the form of imported materials, goods and food, the real contribution is only about 10%. Taking the world as a whole the UK produces just over 1% of global CO₂ emissions (China = 28%) and this underlines the futility of our Government's energy strategy.

How did we get here?

This is an article on its own. Briefly, following privatisation of the power industry, the central planning and risk analysis carried out by the Central Electricity Generating Board (CEGB) ceased with its demise in 1990, the idea being that the market would deliver a more competitive solution. Unfortunately, lacking a central controlling authority, the multiple private companies are motivated to maximise returns and are largely foreign-owned; hence they have no concern for the national interest. What strategy exists is determined by politicians who are influenced by vested private interests, their lack of knowledge of the complex technology

and the naïveté of well-meaning environmental organisations.

Most independent professional engineers, with no affiliations, believe the establishment of an entirely independent National Energy Authority (NEA) is an urgent requirement. There is ample evidence to suggest that, on a levelised cost analysis, nuclear may be far cheaper than wind. Moreover, despite the capital and operating costs for onshore wind being less than offshore, the lower capacity factor and need for higher levels of storage/backup suggest on a whole system basis, the reverse might be true. It might even be that the high capital cost of tidal is offset by its diurnal and predictable character with modest storage requirements. We need an NEA to determine an optimum energy strategy which provides the lowest risk and cost solution compatible with the urgent need to reduce global emissions. Wind has a part to play but there are already too many windfarms and the sensible thing would be to put

an immediate stop to any more being built.

To make any meaningful progress on tackling climate change, politicians need to turn their attention to the other 90% of material factors driving climate change. A very difficult task because it means curbing man's insatiable appetite for consumerism. The necessary legislation would make the legislators very unpopular, hence the easy but false message of promoting wind farms as a means of 'saving the planet'. A policy which amounts to mere tokenism and has severe environmental consequences. The only solution that will work, is to drastically reduce our energy needs.

¹ Whole System Analysis

The electricity system is a complex aggregation of distributed power generation resources interconnected

by a high voltage transmission network (The National Grid) and an associated distribution system, connected by grid transformers to industry, transport and individual consumers. It is a dynamic system, transporting extremely high amounts of energy across the whole of the UK and has to be managed such that supply and demand are in almost perfect harmony every second, regardless of faults, weather changes and consumer demand, day and night. Unpredictable power input, the power losses and instability management of long transmission connections and the associated capital expenditure means that the actual cost at point of delivery can be several times the source cost. Whole System Analysis is the discipline that determines the real cost of any form of generation.

Norman McNab BSc(Eng) CEng MIET
FIES is an SWLG member.



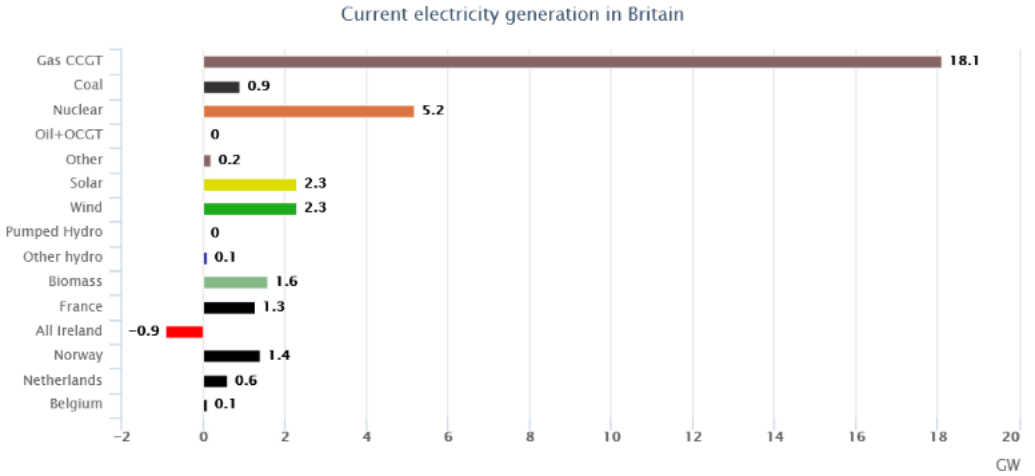
Wind &/or nuclear? Hunterston nuclear power station visible on the right

Photo. James Fenton

ELECTRICITY GENERATION IN THE UK BY TYPE

Live data at 0935 on 12 September 2023

Information from <https://energynumbers.info/gbgrid>



Peter Dunn

NPF4: the popular push-back begins – a view from ground zero

NPF4 is the Scottish Government's fourth National Planning Framework

Landscape impact

It's only a few months since the new National Planning Framework (NPF4) was adopted and the landscape has changed in several senses. Bill Stephens documented its gestation very well in the previous edition (*Wild Land News 102*). Conservation groups are in the main happy with NPF4 being more favourable for biodiversity than NPF3, at least on paper. But they view NPF4 with trepidation in landscape terms and infrastructure companies have leapt on it as a major lever for profit.

NPF4 seen as a major lever for profit

One scoping proposal (Carn Fearn) already received in Highland Region is a significant land grab on a Wild Land Area (WLA) in plain sight of a major tourist route. An application recently rejected at Carsphairn by everyone including two Reporters has just been re-evaluated against NPF4 and consented. Nothing else changed. NatureScot are re-evaluating their approach but have already decided "We object only in those few cases where we feel there is an impact on national interest that have not been appropriately mitigated".

The John Muir Trust (JMT) recently objected to a 'repowering' of a

windfarm on Skye (doubling the size of the turbines to 200 metres) solely on the grounds of impact on peatlands. And councils are thinking twice about raising objections to applications made direct to the Government's Energy Consent Unit (S36/S37 applications) because of the cost.

Growth of opposition

But in the meantime, the public are waking up to the implications. While a multi-site SSEN substation upgrade project for Strathfarrar (in WLA24) went almost unnoticed at the consultation stage, opposition groups across Scotland have come into existence, or are expanding in response to SSEN plans for 400 kV pylons the length and breadth of the country.

From a standing start at the end of March 2023, the 'Communities B4 Power Companies' Facebook group (CB4PC) now has over 2,100 members. It is based around Beaully but taking a nationwide interest in energy infrastructure projects. Other major groups include Scotland Against Spin (1,900), the Angus Pylon Action Group (1,600) and the Skye Windfarm Information Group (SWIG) now has



Looking west from above the Rogie Falls near Contin. Photo. Peter Dunn

over 1000 members (Skye pop. 10,000).

There have been several PR coups, including for CB4PC a 2-page spread in the *Scottish Daily Mail* and a page in the *Scottish Daily Express* challenging the need for the additional infrastructure. The Skye-Glenelg ferry location and a huge new substation at Fiddes have been highlighted in *The Times* newspaper and recently, an STV news item, an article on the BBC website and on Reporting Scotland with a brief interview with CB4PC. Unfortunately the angle was more about how difficult it is for business to implement their plans. We must be having an impact then!

I must declare an interest here. From my house near Beaully I can already see the 40 acre substation at the N end of the Beaully-Denny line and over 60 associated pylons, so I think I can deny any claims of NIMBYism when it comes to adding a new 60 acre substation and an unknown number of 400 kV pylons. Beaully was so-called by Mary Queen of Scots “beau lieu” (beautiful place). “Death by location” is what one unguarded SSEN employee called it.

Elsewhere, on the Kintore-Tealing leg of the new 400 kV network, threats of a 500 acre substation and pylons have exercised large numbers of people,

while Public Inquiries in Galloway and Dalmally have made national headlines, not least for the bullying tactics of the lawyers for the developers. The full implications of the Scottish Government’s expansion target from 8 GW renewables capacity now to 20 GW in seven years’ time have sunk in.

Politicians beginning to listen

CB4PC, Scotland Against Spin and others have the ear of Holyrood and recently attended a round table discussion chaired by Alexander Burnett MSP, who then led a debate in Parliament on how rural communities are challenging the notion of a ‘just transition’ in the face of the loaded dice of the government’s and power companies’ determination.

Sadly, all the Green MSPs and most of the SNP Members left the chamber at the start of the debate. Highland MSPs were also noticeable by their absence, although Douglas Ross (Moray) summed up the case against the government very well. Referring to supporters in the gallery he said “they are not here just to fight for their landscapes in our beautiful countryside; they are here to uphold local democracy, and that is surely important to all of us.”

Gillian Martin, Minister for Energy and the Environment, concluded the discussion: “I have listened to the concerns that have been raised. I will note them and speak to my officials about them, particularly as regards what engagement with communities happens, where it happens and what locus the community has.”

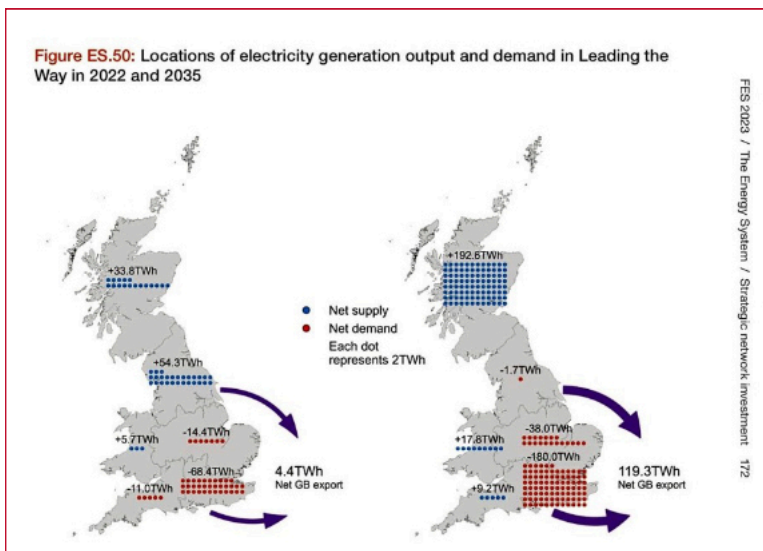
The public clamour got Kate Forbes’ attention and, when meeting leaders of several action groups as their MSP, she has appeared sympathetic. As well as speaking on the BBC’s *Good Morning Scotland* radio programme, she recently wrote in reference to SSENs plans... “For all the progress we’ve made on community empowerment, the principles of the just transition are flying in the wind. If we continue on this path, the transition to renewables will be just as disempowering as the transition to oil and gas in the 70s.” In a broader context, after a very public climbdown

on Highly Protected Marine Areas, Humza Yousaf has acknowledged the need for the Government to listen more to rural communities.

Scotland bearing the brunt

Network pressure groups have also recognised that network expansion is being driven by plans for an additional 3,500 wind turbines by 2030; they are now questioning their need and the environmental impact on peatlands, wildlife, shedding of toxic chemicals from blades and the visual/tourist impact. More significantly, they are asking why. One of the infographics from the UK’s Future Energy Scenarios office provides an insight – see Map 1.

Almost all the increased generating capacity in Scotland will be from windfarms and the absurdity is that constraint payments (when windfarms are paid to switch off) are predicted to increase as production further



Map 1

The expanded Beauly substation

Photo. T Baker



outstrips England's network capacity to take it.

As a result, the public debate is being framed by CB4PC as one of trashing Scotland's landscapes to satisfy England's un-met need for energy and for export; of Scotland's enthusiasm for net zero against England's NIMBYism around wind turbines and nuclear energy (of which the Scots are guilty too). These against a justification of increasing UK energy security and achieving 'net zero' (however that may be defined). Bill Stephens' timely reminder in the last SWLG News of Robert Burns' quote "bought and sold for English gold" was never more visually obvious.

Skye provides a microcosm for this. SWIG argue that only three large turbines are needed to power Skye (when the wind blows) but that 200 are targeted for the island, together with new substations and power lines. One application alone (Glen Ullinish) is for 47 turbines of 200 metres height.

Repowering existing windfarms

While most islanders seemed to tolerate a few wind farms, repowering them and adding more farms has raised the cry of 'enough is enough'; they want local democracy and a local solution. ('Repowering' in practice usually means scrapping a wind farm and building a whole new one including bases on the existing site.)

Highland Council have already approved the network 'reinforcement' in principle, but communities, realising that it's actually a significant upgrade in anticipation of greater generating capacity are asking them to reconsider. Over 200 objections to date have been lodged against the repowering of the Ben Aketil wind farm and SWIG are pushing for a moratorium to give a chance for a proper public debate, preferably a Public Inquiry, about the strategy for the whole island.

This is Scotland in miniature again; pressure groups have been springing up against each development with

little coherence to date against the overall strategy envisioned by politicians and enabled by planning frameworks.

If anyone is interested in how SSEN see the development of power generation in the north of Scotland towards 2050, I can email them a copy of a report produced last year; the link is a bit cumbersome . As a taster, this map (*see Map 2*) is how they see the area as a source of energy by 2050. It is perhaps no coincidence that the most heavily developed areas are those least populated and least able to offer coordinated resistance.

Winsor Report on energy networks

A worrying new threat has recently appeared – the Winsor report into the UK’s energy security and networks. It proposes updating the 1989 Electricity Act for Scotland to end the requirement to have a Public Inquiry if a Regional Council objects to a strategic infrastructure proposal. I wonder what Humza Yousaf will have to say about that given that one of his Westminster MPs has been calling for it, presumably with his blessing.

However the report is critical of the fragmented approach to planning national energy infrastructure – which supports the case that the need for an additional layer of infrastructure in Scotland hasn’t been demonstrated strategically, nor much thought given as to how it will be integrated into the current arrangements.

Raising public awareness

CB4PC see the way forward as one of raising public awareness through eye-

catching and provocative letters and media articles calling out SSEN and the Scottish Government for their bulldozing approach. Also by challenging local MSPs and MPs who have become very skilled at either keeping a low profile or sitting on the fence: those making the right noises about community involvement but not challenging Government policy.

With professional help, their aim is a Public Inquiry to debate the need for any new network infrastructure at all; evidence provided to date by SSEN has been inadequate while the evidence is there that Scotland has met its self-sufficiency targets in renewables.

Feeling the pressure, the renewables industry is now calling on government to make the case. Like SWIG, CB4PC encourage local production for local needs, negating the need for additional long-distance cabling. While encouraging national coordination between groups, they are also submitting application objections at Regional and Energy Consents Unit (ECU) level and meeting any politicians who are interested to promote their cause.

Rearguard action

In summary, network upgrades have been threatened before and windfarms were implicitly always assumed by government and developers to have extensions and new neighbours added. Until recently, I believe a sense of fatalism has been settling in over many infrastructure applications as more and more are bulldozed through by Government against local and Regional wishes,

Sheer volume of applications is fatiguing

2050 Technology Projection Headlines - North of Scotland

Consumer Transformation Scenario

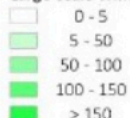
Large-scale onshore wind is by far the most prominent electricity generation technology, with a capacity of **6.9 GW** by 2050. Regions that are likely to host the highest capacity increase include the **Highlands** (2.5 GW), **Aberdeenshire** (1.1 GW) and **Argyle and Bute** (1 GW).

Hydropower could increase by c. 33% to **1.1 GW** by 2050. The most significant capacity total by 2050 could be seen in **Fort William**, **Highlands** (113 MW), **Loch Sloy, Argyll and Bute** (80 MW) and **Taynuilt, Argyll and Bute** (74 MW).

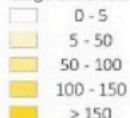


Generation

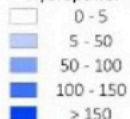
Large-scale Wind



Large-scale Solar



Hydropower



Low Carbon Technologies

Electric Vehicle Chargers by 2050

- 1,000 - 3,000 MW per ESA
- ⊞ > 3,000 MW per ESA

Domestic Heat Pumps by 2050

- 3,000 - 6,000 per ESA
- ⊞ > 6,000 per ESA

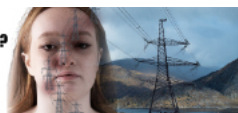
Low Carbon Technology (LCT) clusters appear in areas of future increased energy demand, such as **Dundee** and **Aberdeen**. This is influenced by affluence, land tenure and population density.

Large-scale solar capacity is concentrated in the south and east coast of the licence area due to higher solar irradiance levels and proximity to demand sources. However, as costs continue to fall and technology efficiency improves, areas with lower solar irradiance could become more feasible, resulting in c. **2 GW** by 2050. The regions with the highest capacity are **Aberdeenshire** (484 MW), **Angus** (480 MW) and **Perth and Kinross** (347 MW).



Note: The above map displays Electricity Supply Areas (ESA) where each technology could be present by 2050 under the Consumer Transformation Scenario. Where an ESA hosts a great deal of several generation technologies, only one, usually the most prominent, is displayed.

WHAT KIND OF THUG SCARS HIGHLAND BEAUTY? JUST SAY NO! TO SSEN & SCOTTISH GOVERNMENT PLANS





The Skye Bridge is 35m above sea level at maximum height. A 200m high wind turbine is 5.7 times higher.

Montage by A. Robinson

despite Humza Yousaf's fine words. The sheer volume of applications is also fatiguing.

Long overdue that we prioritise our landscapes

But as the good people of Skye and CB4PC are showing, even though Highland Council have consented, rearguard action is displaying the strength of feeling in communities and politicians are beginning to take note. Larger organisations like CB4PC are being heard through all media by the wider public and increasingly, by politicians. But as politicians are wont to do, they have been trying to keep

the focus on community involvement in mitigation and compensation.

As ever, their silence around justifying the need to desecrate our landscapes for the export of electricity is deafening. Scotland's renewable energy requirements have been taken care of and future-proofed to an extent, and it's long overdue that we urgently prioritise our landscapes.

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Peterdd1@btinternet.com

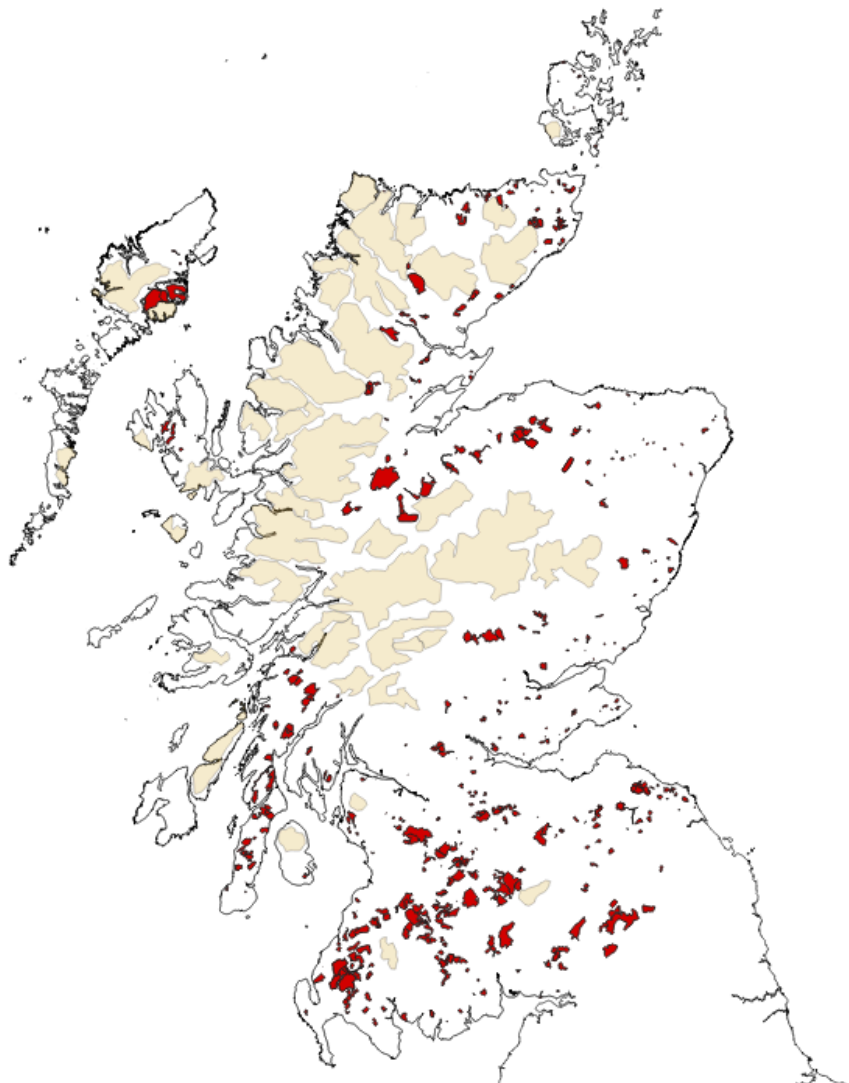
The east end of the Fannichs from Ben Wyvis.

Photo. Peter Dunn



Onshore windfarms installed, approved and scoping in July 2019 together with Wild Land Areas.

There is no recent data because NatureScot no longer has the funds to keep the map up to date. In June 2022 there was 8.6 GW installed capacity from onshore windfarms, with a Scottish Government policy to increase this to 20 GW by 2030. This is likely to include both more windfarms and taller turbines on existing ones.



Hector Forbes

Book review

Land For What? Land For Whom?

Senses of Place and Conflict in the Scottish Highlands

by Bonnie VandeSteeg

This is an excellent book about our favourite Strath [Strathspey], or should that read "our most controversial Strath"? If you want a clearer understanding of the conflicts over the public perception of "reality" that are being imposed by both the traditional lairds, and the shiny new ethical ones, then Bonnie's book is a fine resource.

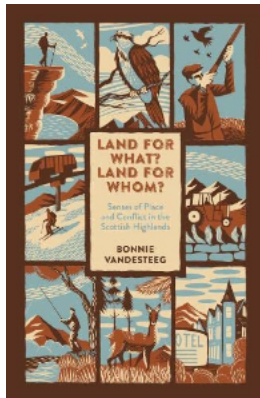
The work is an updated version of her Anthropology PhD thesis (she lived *in situ* for a year), and covers a comprehensive range of subjects, from the failed funicular (still rumbling on) to the National Park, taking in mountaineering, birdwatching, keeping and farming along the way.

The author doesn't shy away from controversy, and makes many cogent and pungent observations on local hierarchies and their modes of operation. Published before the latest planet-saving wheezes at Kinrara (skewered by Chris Townsend, at our 2022 AGM and in his article in *Wild Land News 102*) and Far Ralia, the book delineates "those with power to decide, and ... the local élites who care

about profit ... whilst downplaying their own outside influences..." (quotes from the Conclusion) in the dash to exploit and develop in a somewhat notional National Park.

The book can be enjoyed as individual chapters, but is probably best

approached from start to finish, as the author has an exceptional eye and ear for detail, allowing the various threads that intertwine the chapters to emerge slowly and clearly. Don't miss the Appendix, which outlines the author's methodology, and the seriousness of the anthropological approach she is applying. Some subjects may have squirmed under her microscope.



This book gives us a fascinating insight to the changes forced upon the Strath in the last 25 years, and how such change is managed for the benefit of the wealthy. Thoroughly recommended, the book is available in various local outlets, and will surely become a classic in the community ownership world.

*Published by Stormy Petrel, 2021.
356pp ISBN 978-1-838-22500-1*

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Scottish Wild Land Group

Working to protect Scotland's species, environment and landscapes



Liathach by James Fenton

The objects of the Group are:

- (a) To promote the conservation of wild land in Scotland;
- (b) To promote public awareness of the problems facing wild land in Scotland;
- (c) To promote and encourage the implementation of good planning policies;
- (d) To co-operate with other bodies to promote the foregoing objects.

We campaign for:

- ✓ Protection and promotion of Scotland's wild land
- ✓ Safeguards against inappropriate windfarm and other developments
- ✓ Environmentally-sensitive land and wildlife management
- ✓ Planning controls on the spread of hill tracks
- ✓ Restoration of rare and missing species and environments
- ✓ Connection of habitats and protected areas to allow ecological recovery and species movements

We are Scotland's oldest and only volunteer-run wild land charity

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