

A photograph of several white wind turbines on a grassy hill under a clear blue sky. The turbines are arranged in a line, with the largest one in the foreground on the left and smaller ones receding into the distance. The text 'Scotland's Beauty at Risk' is overlaid in red, centered in the upper half of the image, flanked by two horizontal grey lines.

Scotland's Beauty at Risk

Introduction

There is an unseemly rush to develop wind power in Scotland's uplands. Not for the first time, the beauty of our countryside is being damaged to serve the public policy needs of the moment. The scale of change ahead to our landscapes is significant and the pace of change unprecedented: but this is not yet widely appreciated.

We are close to a tipping point, beyond which there will be much more visibility of wind power schemes that are approved but not yet constructed, and there is a big flow of proposals, either at application or being planned. If the present unbridled policy for on-shore wind power development continues, the outcome will be to transform Scotland's great scenic beauty for the worse - much worse.

The procedures for protecting our landscapes are not working; the targets for delivery of renewables power continue to increase with no known upper limit; the longer-term implications are not being addressed; and, as in previous bids through public policy to exploit our hills, care for their beauty and character is at the bottom of the pile of considerations.

Exploitation of our countryside for wind power is truly a soft option, and we need to change direction now, to use less power, and to shift to other less damaging forms of generating renewable power – read on.

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SCOTLAND'S BEAUTY MATTERS

Scotland's scenic beauty is of great value to the nation – but at risk from wind power developments. Already there has been much complaint about these major constructions and their effects on our scenery, but there is very strong policy support for more of them. We need a new policy approach to renewable power generation, so that Scotland's beauty is not further damaged.

THE BEAUTY of Scotland matters to people – a truth that lies at the heart of our national identity. Long celebrated by poets, musicians and artists, it is an important part of the image others hold of our country, creating a reputation far beyond our shores. Survey after survey confirms that scenery is a prime attraction for our visitors, and thereby one of the key resources upon which tourism depends. Above all, Scotland's beauty matters because it makes living and working in our country special – it inspires, refreshes, and is part of our quality of life: and it is a vital element of our national heritage.

But do we care enough, debate enough, or do enough to ensure that the beauty of our land is secure? The short answer is that many people do care, often with passion. Yet we do not debate or do enough, and part of the problem is that the matter of caring for Scotland's beauty does not sufficiently engage the body politic. From time to time, politicians rest their arguments on this part of Scotland's heritage, but then move on quickly.

There is an unspoken assumption that Scotland's beauty is as enduring as the hills which many people value most in our scenery, and this can lead people to take the quality of our landscapes for granted. But this is wrong: Scotland's appearance changes as society places new demands on the land. The pace of change to town and country has speeded up over the post-war period; and the scale and diversity of this change has grown, from both development needs and land-use change. Thus, from the 1950s, hydro-electric development and afforestation transformed many landscapes in the uplands; and on low ground, arable land has been changed by modernised agricultural practice. Social change has led to many new needs, such as more housing, roads, expanded public services and communications; and landscape change has also arisen from the restructuring of the Scottish economy.

While many such changes are modest in scale, their cumulative effects on local amenity can be significant. Some of these trends have had profound effects on the beauty of our countryside.

But there is no proper catalogue of the extent of such change to our landscapes, and few people know all of Scotland well enough to understand and describe with authority what is going on at the national level, whether in the past or at present. For most of us, our awareness of local change is usually limited by our first knowledge of a place, unknowing of what has happened before, and what has already been lost.

Finally, no one owns Scotland's beauty, but all of us have a stake in its wellbeing, and thereby arises both a collective and an individual responsibility for its care and enhancement. Yet it is difficult for the many who do care about the beauty and the character of our land to have a say, or to know what to do in order to help care for it. Too often, damage to the quality or character of our landscapes is assumed to be someone else's problem to solve: *time to change that perception.*

Once a lonely place



WIND POWER AND SCOTLAND'S BEAUTY

Modern wind farm turbines rise to 330-500 feet (100-150m), base to blade tip. Turbines of this size are highly visible in the longer view, and are usually constructed on exposed sites. They transform places that are mostly semi-natural in character, sometimes with qualities of wildness, and their construction calls for a substantial network of access roads. These are power stations, not farms.

TO CAPTURE wind to best effect, most large terrestrial wind farms are located in the uplands, often in near-natural settings or on rough hill-grazings. The agricultural potential of much of this land is limited, but lightly used does not mean unvalued. The scenic quality and the wild character of Scotland's uplands are remarkable assets for a nation that is so urbanised elsewhere, and they are of value beyond the UK. Central Scotland is as much upland as lowland: hills and moorland encircle or provide the backdrop to many settlements, and wind power also intrudes on these landscapes. More turbines are now appearing on low ground.

The intangible qualities that people value in our landscapes are barely given a place in debate and judgements about wind power: the sense of freedom, solitude and challenge to be found in the wilder settings; the near-natural qualities of the hills, or the tranquillity of ordered and well-managed landscapes. People also value the character of the landscape within which they live and work for its historic, cultural and community associations.

This is how people engage with and enjoy all of Scotland's landscapes – a set of aesthetic, emotive and physical experiences that touch all the senses; which contribute to the well-being of people working and living in a modern society; and which underpin the values people find in their enjoyment of Scotland's outdoors, through all kinds of open-air activities.

Some people like wind turbines or find them arresting or majestic objects: indeed, a well-

proportioned turbine can have sculptural qualities. Some may accept them for their green credentials – others may not care one way or another. Wind turbines can help remote communities that are off the grid, and a limited number of wind farms or single turbines would not be unduly troublesome – just another set of unwanted marks on our landscape.

The big problem ahead is the unbridled scale of future growth in wind power development. So large and dominating are modern turbines that they irredeemably change the physical appearance, the character and the beauty of those areas favoured for their construction. The movement of the blades is discordant with their rural setting, and they are objects of high contrast. So extensive is their visual footprint that they are conspicuous in the view over distances far beyond the effects of ordinary development. So industrial in character are wind farms that extensive vistas, once untrammelled by constructions, are transformed: and more large turbines are now appearing on lower ground, where they are out of scale with their rural setting, and where they intrude on people's living-space.

These are structures that are beyond concealment. Nor can they be designed away: they flaunt their presence and dominance, and diminish the timeless and inspiring qualities that many people value in our countryside, in both the wilder settings, and in the countryside close to where most people live.

In the short period since the onset of large-scale wind power development, the size of

Moorland transformed





Clyde valley - turbines dominating settlements

turbines has increased greatly. Early turbines were up to 150-200ft (55m) high, but turbines in the range 350-450ft are the norm, and near 500ft (150m) turbines have arrived. There are also fast-increasing numbers of single or small clusters of turbines of lesser size, now being constructed on low ground.

Best efficiency in operation requires that the larger turbines are, the greater the space needed between them: thus a medium-sized wind farm can occupy a large area for the power generated, with extensive road networks. The Griffin scheme with 68 turbines, and close to Amulree, covers an area similar to nearby Perth; and the 140 turbine Whitelee scheme south of Glasgow initially covered over 20 sq miles, with a road network of 44 miles, but extensions have now taken this scheme to 215 turbines. These are major civil engineering projects – suggestions that they can be removed some years later and the land returned to its former state are unrealistic.

As more wind farms are constructed, the cumulative effects grow. Some parts of Scotland will soon be transformed by wind power development: say, extensive areas of the Southern Uplands, Caithness, Easter Ross and the Northeast. And with more of this change, the overall image people have of Scotland's scenery, as they move around the country, is being damaged by repeated sight of turbines. This is about to get worse, much worse given the scale of change ahead.

Wind power will not affect all of Scotland. Some terrain is not as suitable as developers want; and some areas are too remote from grid connection – for the present. But reinforcement or extension to the electricity grid (also future

under-sea cabling) will eventually ease some current limitations on development.

Our most scenic landscapes have some protection as National Parks or National Scenic Areas, often overlain by nature conservation designations: however, these special areas are not immune to bids for wind development. The Beaulieu-Denny grid upgrade will cross part of the Cairngorms National Park, and this Park is also subject to wind proposals very close or up to its boundary. Most of the pressure ahead will fall on land that does not have this level of national protection, some of it in places that are valued for their wild and lonely character. Scotland is a country with a strong reputation for the quality of its landscapes, but the means and the commitment we have for the protection of this scenic resource do not match its importance to the nation.

Land close to urban areas is also affected: thus the moors of Central Scotland are targets for wind power. Some of this land shows the evidence of past industrial uses, but it is of value for those who live there. For many people, these are the hills of home – the settings for their daily life and work, and for recreation, and an important part of their quality of life.

The prospect ahead is of extensive wind power development across much of the nation that will transform many fine landscapes. Concern for the care of these landscapes is about values: the values that people hold for their own local landscape, and the values held generally for Scotland's beauty. In this light, assertions that the public will just have to get used to wind farms are wildly misplaced.

Values of this kind are deep-rooted, and not open to being cast aside by administrative or political diktat.

WHAT'S GOING WRONG

Strong policy and subsidy support is driving the rush to wind power. The policy is target-led, and these targets keep moving onwards, now aiming for the equivalent of all of Scotland's electricity generation needs to come from renewable sources by 2020. The commitment to renewables is such that there is no known ceiling to future wind-power development, and the ambition is unbounded.

Single-minded policy

Government has bold ambitions for renewables, set out in national policies such as the National Planning Framework. While this document has positive statements on care of our landscapes, the policy drive for renewables is now so strong, and the targets are now so ambitious, that the amenity of the Scottish countryside is bound to be seriously affected, and at a pace of change that is unprecedented.

All public bodies are now required under the Climate Change (Scotland) Act 2009 to contribute to the achievement of national policies to mitigate climate change. These national policies are effectively a direction to all bodies with a role in the planning system to ensure a smooth path to meet the energy targets, which can only be delivered in the short-term by on-shore wind development.

Imperfect procedures

National planning policy requires that local authorities support development for renewables to ensure that the potential of their area for green energy is realised and, in their development plan, they must provide locational guidance for wind farms of a capacity greater than 20MW. Under their planning powers, local authorities assess and give consent (or otherwise) for wind or hydro schemes up to 50MW in capacity (around 17-20 big turbines). For local decisions about wind power development, there can be tension between the strength of national policy, and the proper concerns of local

residents. Some Councils have heavy wind-power case loads, and local refusals can lead to contentious and costly public inquiries.

Above the 50MW limit, consent for electricity power generation lies with Scottish Ministers under the Electricity Act 1989, and they are advised by the same part of the governmental machine that promotes growth in renewable energy. Procedures for Electricity Act development broadly follow planning rules, including preparation of an Environmental Statement (ES), required by European Directive for all major developments likely to have effects on the environment. These are often huge documents, prepared by consultants to the developers, and they have an unavoidable starting point that the development proposals are possible, appropriate and in accord with policy. An ES is focussed on nature conservation and landscape, sometimes on cultural history or pollution issues. There usually is some social content, such as the potential effects on tourism; visual or noise effects on nearby residences; or enjoyment of the outdoors by the public. However, most issues of this kind get light treatment in the analysis and they are usually set aside, having weak policy anchors against the strong drive for renewables: but such issues are important to people locally.

Objection by Councils to an Electricity Act case can lead to a public inquiry, which then becomes the basis for recommendations on approval (or not), but the big schemes are rarely refused consent by Ministers, except where EU

Turbines dominating a rural setting



conservation reasons, or on critical issues such as the effects of turbines on air-traffic radar.

Importantly, the national policies and the means for the protection of scenic beauty are not nearly as robust as those for nature conservation, which can often have EU Directive backing.

Constrained public body scrutiny

Scottish Natural Heritage (SNH) is advisor to Government on the care of Scotland's natural heritage, including its natural beauty. It and some other public agencies, such as Historic Scotland and SEPA, are statutory consultees to large development proposals. These bodies will often provide information for the ES, or advise on survey methods, especially SNH, which has prepared much advice for developers on how best to assess the impacts of wind proposals. The opinions of these agencies on the findings of the ES are given weight in assessments by local authorities or inquiry reporters, and this is not improper, as they are the official expert advisors: but they are not independent.

Without challenging the integrity with which the staffs of these agencies perform their statutory role, there is no avoiding that such bodies are part of Government, and are subject to its policies. Public body scrutineers act efficiently in assessing the details of proposals, such as the location of individual turbines or their numbers and other impacts: and sometimes to very good effect. However, these bodies have to conform to the scale of development sought by Government.

SNH only objects in principle to wind power proposals where national issues arise, say for EC nature conservation needs, sometimes for national landscape reasons, or where undue cumulative impacts from adjacent schemes arise. By the time cumulative impacts are an issue, the landscape will have already taken a big hit.

Scenic beauty underplayed

As part of an ES, developers engage landscape architects to assess the impacts of a proposed wind farm on the landscape, which is done using a Landscape and Visual Impact Assessment methodology (LVIA). This kind of evidence carries weight, because it purports to

A human scale to a large object



offer objectivity in the assessment of landscape-change issues that involve aesthetics and values. The public sector endorses this method, including SNH, whose opinion of this part of the ES can be important, given its statutory remit to care for Scotland's natural beauty. While LVIA assessments do contribute to the technical debate on the impact of proposals, they mainly address the outward manifestation of a scheme, with an emphasis on the visual effects and on landscape character. But these assessments do not fully embrace how people engage with, enjoy and value our landscapes, and do not get to the heart of what concerns those who object on amenity - the intangible qualities described earlier. *Time to give more weight to the values that underpin how the public engage with, value and enjoy Scotland's landscapes.*

Dissent locally and nationally

The over-riding concern amongst local opponents of wind power development is the imposition of dominating new structures that damage their amenity and undermine the values they hold for the area within which they live and work. Wind power is driven by national policy and by subsidy, with big schemes implemented by distant developers, many from outwith Scotland, but with the impacts being borne by local residents, some of whom can end up being oppressively close to the outcome.

The owners of land on which development takes place do benefit financially, and some transient expenditure and employment will arise locally over the period of construction. Developers are now offering large compensatory payments, to communities but these can be seen as a means of countering local opposition. The

reality is that wind power development extracts value from an area by damaging its amenity, and the main financial benefits go to distant investors. Nationally, there is a fast-evolving public concern about what is being done unthinkingly to Scotland's landscapes, as the cumulative outcome of more developments becomes evident. Hence the growing scale of public concern and opposition to wind power.

Weak wider-public understanding

The case argued for development often refers to public opinion surveys that show a public preference for wind-power, commissioned as part of propaganda wars against objectors. The public is exposed to heavy publicity about climate change, and the need for urgency of action. So it is not surprising that some respondents to opinion surveys opt for the virtuous response of generation by wind. But these data also demonstrate much uncertainty in public opinion and they can easily be misinterpreted: indeed, most respondents to well-structured national opinion surveys will live far distant from such developments, and will have little understanding of their scale and adverse effects locally, and the wider oncoming cumulative effects on scenic beauty. Deference to populist opinion is not how society generally resolves other complex value-based issues: why should wind power be different?

Subsidy and regulation-driven

Delivery of Government policy is also driven by the Renewables Obligations Orders, which provide a complex carrots and sticks approach: the sticks are penalties on electricity supply companies who fail to deliver a required (and annually increasing) proportion of renewable power to their customers. The carrots are generous subsidies to generators to promote this form of electricity generation; and supply companies that meet their targets can receive a payout from the penalties. So the power supply industry is under strong statutory pressures to deliver the requirements of national policy, and the additional costs arising from this approach are met by a loading on consumer charges, hidden in everyone's electricity bill: thus the consumer is subsidising this damage.

And the outcome is...

Onshore wind is the main option to meet the ambitious 2020 targets, given failure by governments over past decades to take the long view in securing a balanced energy supply.

Local authorities have to respond to strong policy guidance, and cannot take the national overview. Generators of wind power seek sites with best wind potential and with accessible grid connections to move power towards its end uses. There is no national strategy for wind power location, and it is almost too late for planning of this kind.

Unguided development, backed by strong national policy and the statutory requirements on the power industry, leads developers to seek consent on exposed sites in order to capture most wind. Increasingly, sites of great blatancy are being proposed, where development for other purposes on the same scale and impact would be regarded as unacceptable. The public interest role of planning has somehow been turned on its head, with developers able to bid confidently for consent on sites that are optimal for their needs, even challenging local policy advice or protected area designations.

Some proposals fall by the wayside on early consideration, say for conservation reasons or problems with the site itself: for others, the size of the scheme and its details may be amended in early negotiation or through the consent process. For some schemes, their location is less blatant than others, but all schemes using large turbines are dominating developments that irredeemably change the character of their settings. *Are the people of Scotland aware of and signed-up to the scale of change ahead to the beauty of their country?*

Forest felled for turbines



WHAT LIES AHEAD

Wind power schemes already constructed or approved are but a fraction of what is being considered for consent or future development. The electricity industry will have plans not yet in the public domain, and policy on renewable energy is to press onwards, with no known limit to present ambitions.

What's happening now

The scale of change ahead to Scotland's scenery from wind development is not yet evident: the consent process takes time, likewise construction. There is no up-to-date public record of numbers of projects. SNH's data indicate around 380 wind-power schemes of more than 3MW capacity, either approved or seeking consent. This includes those at what is called the *scoping* stage: that is, proposals which are firm in intention and at the point when an Environmental Statement is required.

Around 140 of these schemes are operating or approved, with about half of them not yet operational; and the others are in the consent process. In addition, there are fast-growing numbers of small wind-power schemes, mostly under the relatively new Feed-in-Tariff for renewables schemes less than 5MW. Many of these projects are on farmland, notably in Aberdeenshire where the number of such applications is very large. While some smaller developments are modest in scale, others are obtrusive, and they now seem to be appearing almost at random across the countryside.

At any one time, SNH is in contact with a large number of other oncoming proposals, said to be around 250, this arising through early informal discussions with developers. Some of these proposals will fall by the wayside, but there is a flow of others to take their place.

SNH's data show that around 55 schemes larger than 3MW in capacity have been refused by local authorities or after public inquiry. But the larger proposals normally get consent, one exception being a very large scheme on Lewis, refused on account of EU conservation requirements. Some refusals arise from nature conservation or wider landscape concerns, but a number are small local proposals, set aside for amenity or other residential impacts.

Refusals often lead directly to an appeal, sometimes with the initial decision being reversed at inquiry. And once in place, it is

Turbine generator - heading for the hills



difficult to deny expansion of a wind farm, given the initial approval, the existing impact and the infrastructure on the ground.

A number of developments already have or are seeking consent to expand: the large Clyde scheme (152 turbines) has a current application for a further 54 located on ridge tops over an extensive area. Proposals that are refused are often revived after review of problems. Thus the Kyle proposal near Dalmellington is now making a come-back, after refusal in 2008 on account of possible effects on Prestwick radar and its projected landscape impacts. The maps for southern Scotland (*page 9*) and the north (*inside back page*) illustrate the scale of pressure.

Looking ahead

Some commercial consumers are now investing in wind power, both to reduce energy costs and to meet targets on carbon emissions, sometimes in settings where amenity for local residents is not of the best, and we are likely to see more of this. Some forests have been felled to make way for turbines, and bodies such as the Forestry Commission have been directed to make public land available for wind power development.

Large offshore wind proposals are in prospect, but they will only begin to have effect towards the end of this decade. Development offshore has higher costs and engineering challenges, especially in Scotland's deeper and stormier coastal waters, and special connections to the grid have yet to be arranged. Offshore

development will mainly attract the bigger companies, on account of the scale of funding needed, leaving many other developers still looking for onshore sites: so demand for onshore wind will continue. And if offshore is near-shore, the same amenity issues arise.

The Scottish renewables target for electricity generation has increased in steps from 40%, and now aims for 100% of our needs by 2020, with a new interim target of 50% by 2015; and this stands alongside a target for 30% of overall energy demand to be generated by renewables, also by 2020. At present, wind and hydro are about 20% of all electricity generation in Scotland, with wind output now outstripping hydro. Depending on progress off-shore, most of the shift away from conventional generation needed to reach the 2020 target, will have to be into onshore wind: the potential of large hydro is limited, apart from pump-storage, which will increasingly depend on off-peak wind power.

Prediction is uncertain, but onshore wind output will have to expand by several times its present level to meet the target. We can expect continued growth in demand from suppliers in the south seeking renewable power to meet their statutory obligations. In the years ahead, enhanced grid connection to mainland Europe implies a big future demand for our renewables from countries lacking Scotland's resources.

How much does Scotland have to deliver?

Scottish targets are much higher than south of the Border – double the 15% current target for the whole of the UK for all energy demand from renewables by 2020. Of course, Scotland has existing hydro-power, and resources for other renewables that are better than elsewhere in the UK, where much of the uplands has enviable policy protection through designation as *National Park* or *Area of Outstanding Natural Beauty*. Targets for electricity generation are now being overtaken by wider objectives for carbon

reduction. The Climate Change Act 2008 aims for 80% reduction in carbon-emissions by 2050 against a 1990 baseline – and this same goal has been enacted in Scottish equivalent legislation, but with an interim 42% reduction by 2020 and annual 3% reductions thereafter. These tough targets imply changes to lifestyles and work, also technical innovation, which will take time in persuasion and implementation. Meanwhile, electricity supply stands in the front line of delivery of these ambitious targets which, in turn, implies more onshore wind power.

These are not abstract issues: there are bold ambitions for Scotland as the wind capital of Europe, or the so-called Saudi Arabia of renewables. Strong policies encourage a rush to the soft option of onshore wind, and the funding arrangements already entice many developers from elsewhere to a Scottish subsidy honeypot.

Some people have to live closeby...

Wind power development is spreading in the countryside around towns. Not too many years ago, much public expenditure was directed to action in the former coal-mining areas across the central belt to clear away the remaining debris of past heavy industry. This was part of government action to improve the quality of life for local communities and to attract inward investment for jobs. Now this land is being colonised by structures from a new industrial era, which impose on the landscape of these communities, in settings where their local amenity is often not of the best.

Some of these developments are small in number of turbines; others are large-scale. They are too close to settlements and they are re-creating the blight that existed previously, but on a new and larger scale, and with very few local employment benefits to the community, if any. What does this do to the quality of life of people affected in this way?

Whitelee - currently the largest



Development Proposals - Mid 2012

The map below, and that for northeast Scotland on the inside back page, show large schemes approved or constructed, and other proposals in the public domain, some at formal application, others in preparation. SNH cautions that its data are incomplete and only illustrative, because the pace of wind power development is high and the map data are only updated annually.

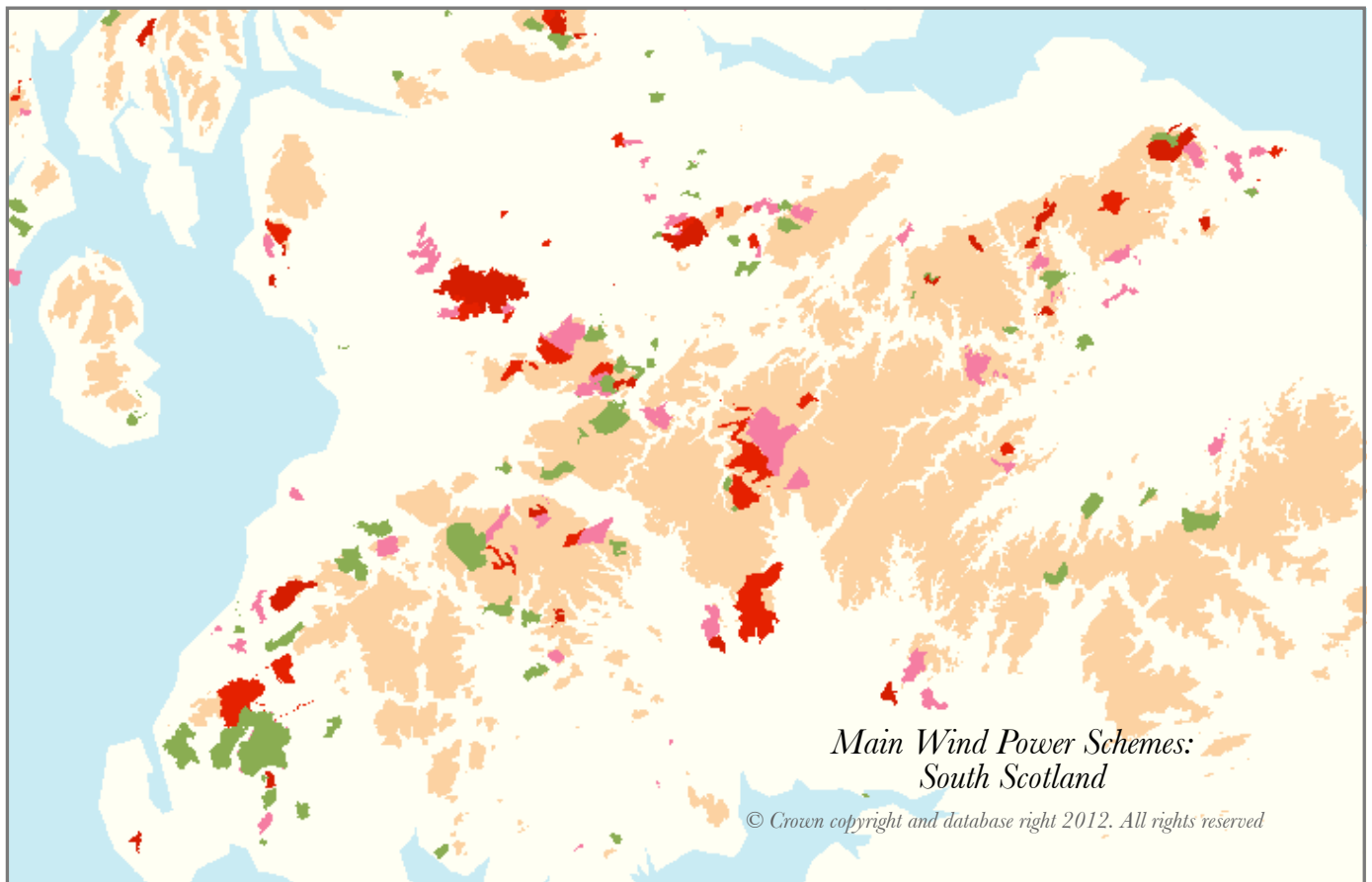
For each scheme, the area owned or leased by the operator is shown, and this gives a good impression of the physical scale of development, existing or proposed. In many cases, the development occupies the mapped site; for others, the whole area is not yet fully used.

The Southern Uplands are attractive to developers on account of terrain and access to southward interconnector grid lines. Some areas are as yet free from development, on account of restraints from aviation radar and for other

reasons. There is action to overcome these limitations to more development. Much of this fine and often lonely landscape has already taken a big hit from conifer afforestation.

Major development in the northeast is so far mainly on the moors to the south-east of Inverness, and in Easter Ross, with a notable concentration in Caithness where the Dounreay gridline and coastal wind attract. Aberdeenshire is subject to small-scale wind development to a degree far beyond what can be mapped at this scale. There has been recent expansion of development into the wild country of the Monadhliath, also to the west of Loch Ness, attracted by the Beaulay-Denny gridline upgrade, and aiming to 'harvest the opportunities' along this power line.

A Wind Footprint Map and data on trends, can be found on SNH's website at www.snh.gov.uk.



Legend: Constructed or Approved ■ Application ■ Scoping ■ Land over 1000' ■

Turbines dwarf interconnector grid line



A turbine by your home?



What about tourism?

One of Scotland's main tourism assets is the quality and character of our scenery. There is ample market research to show that visitors greatly value our undeveloped countryside, especially its sense of space, wildness and naturalness: those who come to enjoy Scotland's outdoors for its scenic qualities and its wildlife, and for all kinds of outdoor activities are some of our most loyal, repeat visitors. Tourism seeks market growth through a series of campaigns and events, promoting (*inter alia*) 'awe-inspiring rural and urban scenery' as part of the Scottish tourism brand. It is worrying, when our scenery is under such attack, that the year 2013 is being promoted by VisitScotland as the Year of Natural Scotland - '*a chance to enhance Scotland's reputation as a place of outstanding natural beauty*'.

Studies on the possible effects of wind farms on tourism are said to prove that many visitors aren't bothered by such development and, in reply to speculative questions about future holiday intentions, they tend to say that sight of wind farms will not deter them from returning.

How do we know? Responses of this kind are fuzzy snapshots based on limited awareness of the scale of change ahead from wind power, and on what was visible at the time of survey. Future holiday intentions rarely rest on one issue: dissatisfied visitors tend to slip away quietly, carrying damaging word-of-mouth messages, and there is no means of measuring this effect.

It is asserted that tourism revenues will be only marginally affected by wind power, and the implication is that the beauty of an area can be damaged up to the point where major financial

loss can be measured and verified. This is a misplaced proposition, in that damage to Scotland's scenery would be very serious by the time the economic effects were disentangled (assuming that they ever could be) from the complexity of the wider tourism economy. It is wrong to impute that we can continue to damage the tourism resource up to the point at which visitor discontent can be proven by research. It is also wrong to imply that only economic matters count: the quality of visitors' experience is critical, likewise their image of Scotland as a place to visit. Sustainability in tourism must be begun with care of what is known to be of prime value in attracting people to come to Scotland.

But who is looking ahead on behalf of tourism? An assumption that visitors will just keep on coming would be wrong, given the highly competitive nature of the international tourism market. Rural tourism is an industry of mainly small businesses, many competing with each other, and all focussed (understandably) on their own survival. Only a few forward-looking operators take the long view, and wonder what their business will be like a decade ahead. *Time to take that long view in safeguarding what is most distinctive about Scottish tourism and most valued by our visitors – its beauty and its wild, open spaces.*

Been here before

Scotland is not short of eyesores or poor quality development, often in and around settlements. However, the scenic quality of our hills has also been damaged by ventures to serve either (or both) the local economy or the national interest. In the post-war period, public policy initiatives of the moment led to much action to promote

Unloading turbine blades



Hydro reservoir draw-down



hydro-power, to enhance the productivity of upland agriculture, and for afforestation. All these ventures began with enthusiasm for their benefits and, while there has been some progress, the achievements have never matched expectations. Problems in execution have always arisen, whether from over-ambition, failure in the planning or delivery, or from other factors, sometimes the harsh reality of economics.

And have we forgotten that Scotland's beauty has taken a big hit from past development for hydro-power? This arose from damage to many fine landscapes by dams and their reservoirs: and there were unrecorded adverse effects on the ecology of rivers and burns, and on the pre-existing lochs in the glens that were replaced by new steep-sided reservoirs, now often seen with ugly draw-down scars.

The scenic glens of mid-Inverness-shire – Strathfarrar, Glen Cannich and Glen Affric – were identified at the end of the war as one of five prime landscapes deemed to be of national park quality, but the effects of hydro-power led to judgements that the quality of this area had been diminished, such that it has not featured in later debate about national park creation.

The adverse effects from all these ventures on the beauty of Scotland's uplands have been significant, and remain uncatalogued. We are with wind power at the outset of that first expansive stage of policy ambition, driven by perceived benefits, and blind to the outcomes. *Natural beauty has always been at the bottom of the pile of considerations as these successive waves of ambition hit our uplands – time to reverse this.*

Who cares for beauty?

As consents emerge site by site, there is no consideration of the overall effects on Scotland's beauty, although the approval process can lead to local assessments of cumulative visual impact arising from adjacent schemes.

One of the tests to be met for developments promoted under the Electricity Act is that the developer is required in statute to '...have regard to the desirability of preserving natural beauty...and 'do what he reasonably can to mitigate any effect on the natural beauty of the countryside...'. This is a very low hurdle to cross, usually interpreted as taking some care in the detailed design of proposals that, by their scale and dominance, are bound to have major effects on the beauty and character of our countryside.

And the natural beauty test can only apply to individual cases, not the cumulative effect of many more schemes. Government departments and all public bodies also have a statutory duty in their work relating to land to '...have regard for the desirability of conserving the natural heritage', which includes its natural beauty and amenity. The feeble wording of this duty, which dates back to 1967, leads to it being largely ignored.

Is anyone thinking about the longer-term overall effects of the rush to wind on the appearance of Scotland? *It seems not – time to challenge this complacency.*

Objectors in the Lammermuirs



TIME TO CHANGE DIRECTION

We do need to act on energy. For a range of reasons, we must shift the balance of our energy sources; there is an important national need for security of supply in a turbulent world, at a time of fast-growing global demand for energy; and there are longer-term issues over the depletion of the most accessible fossil fuels. We also need to influence public attitudes towards more efficient use of and continued reduction in the consumption of energy.

THIS document does not consider the other major limitations of wind power generation – such as its intermittency and unpredictability in output, or the scale of subsidy. Nor can the arguments here address the complex matter of how we source and manage the nation's energy needs, including past failure to act earlier to secure a balanced energy supply or in promoting other modes of renewable generation. And there is the difficult matter of influencing people to minimise and be efficient in their use of energy, which is only now being addressed.

The focus here is on protecting Scotland's great natural beauty, for the reasons set out in the first page – an issue that has been pushed aside in the rush for wind.

There is a sense in current debate that climate change is somehow a divergence from stability. Not so: the historical and geological records demonstrate that climate change is the norm, often from causes that are uncertain. Yet there now is real and concerning evidence of significant human influence on the environment: so we do need to act on energy, and a serious and committed approach is needed. Wealthy, high energy-consuming societies also have an obligation to take a lead.

But action must be proportionate and rational, bearing in mind the reality of huge growth in energy demand elsewhere in the globe. We need to be more hard-nosed and more measured about how we address the matter, rather than rush for the soft option.

The argument above has several themes:

- ❖ *a short-term approach, market and subsidy-led, and target-driven has led to a chaotic pattern of development, lacking in strategic direction;*
- ❖ *the procedures for the assessment of schemes are dominated by the policy drive, such that there is only limited restraint on development;*
- ❖ *the evident concerns and the strong values held by people for Scotland's landscapes are being set aside;*

- ❖ *the mechanisms for and commitment to the care of Scotland's scenic beauty do not match its importance to the nation;*
- ❖ *we are repeating the failure of past upland land-use initiatives to pay proper attention to the care of Scotland's beauty;*
- ❖ *the development ambition has no limits, and to continue as at present will have serious effects on Scotland's landscapes.*

The acceleration of targets on electricity supply and carbon-saving only reinforces onshore wind power as the dominant way forward in the years ahead, given that alternative options are not yet available on a scale to make a sufficient difference. And the present 100% electricity target by 2020 is not a ceiling to the development ambition.

An end to the rush for on-shore wind development is needed now – it is time to re-direct renewables development in a way that does not trample over the beauty of our land; and we need more effort on the difficult matters of continued reduction of and greater efficiency in energy use.

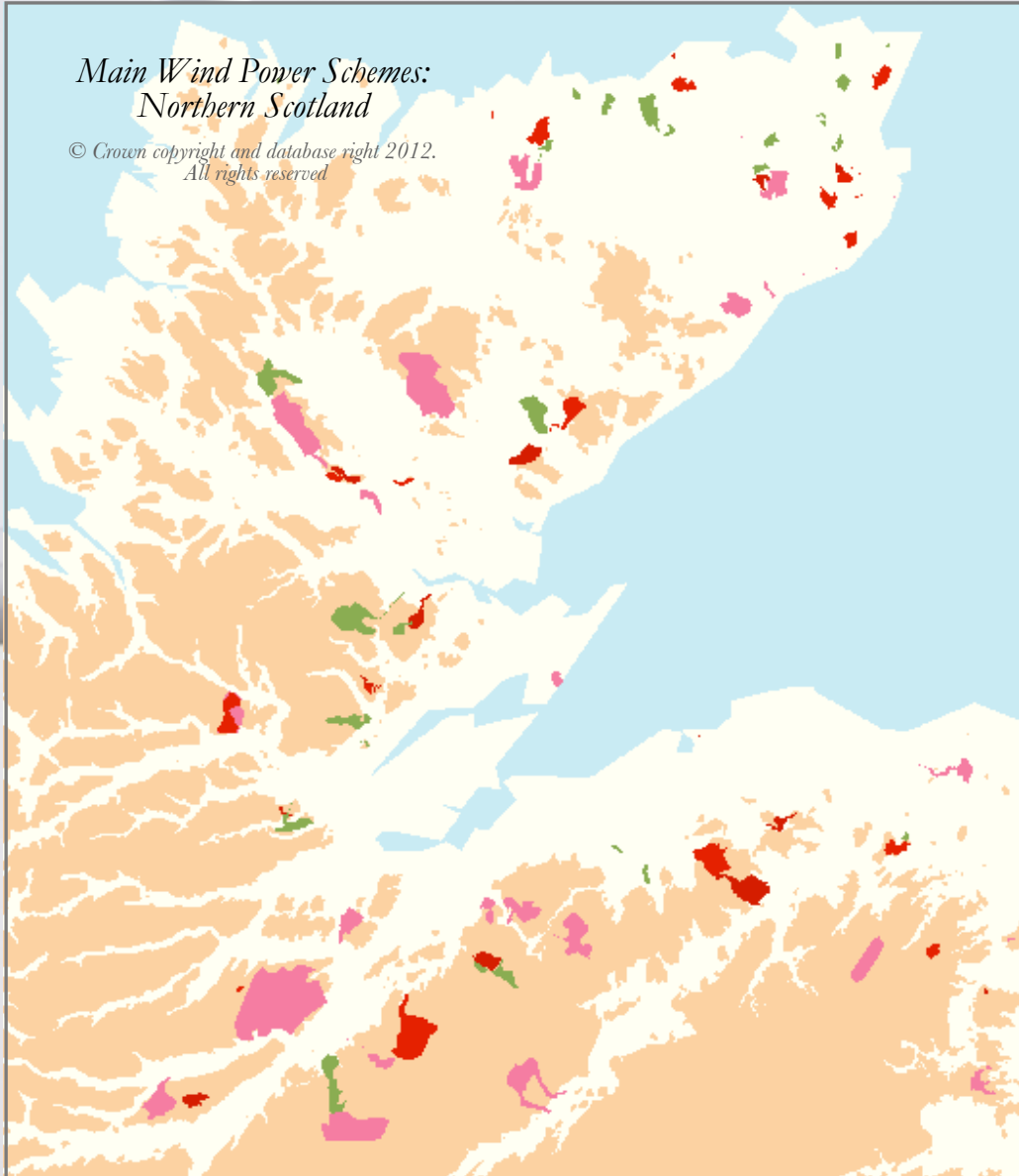
Scotland has a bold strategy for green energy with many actions that are commendable. But all past governments have been too slow in addressing energy use and needs: why then, should the beauty of our countryside be in the front line of sacrifice to retrieve these past failures? Without a change in direction we will be asking only a few years ahead, why we allowed this assault on our countryside to happen.

Above all, Scotland's beauty is important to people, being a formative part of the identity and image of the nation: and our landscapes now face a crisis. The drive to on-shore wind is the simple short-term option, giving reassurance that something is being done – but with great complacency as to the outcomes.

*So onshore wind remains the soft option, and our hills are the soft target: **time to change direction.***

Main Wind Power Schemes: Northern Scotland

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Legend: Constructed or Approved Application Scoping Land over 1000'



‘The outstanding beauty of the Highland scene,
which is one of the nation’s great natural assets, has
been haphazardly expended and no account kept.’

W H (Bill) Murray *Highland Landscape* 1962

‘There is no other country in which the roots of
memory are so entwined with the beauty of nature.’

John Ruskin *Praeterita* 1886

