

Gazetteer of wind power in Scotland

A landscape photograph showing a row of wind turbines on a hillside under a cloudy sky, with a dark building in the foreground.

**The
Scottish Wind Assessment Project**

Produced by *The Scottish Wind Assessment Project*

January 2005

The Scottish Wind Assessment Project is an ongoing programme of research which seeks to collate existing studies and commission new research to promote a thorough investigation of the claims made for and against the use of wind-generated energy. It is supported by private donations.

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Front cover: turbines on the *Cairn Uish* site in Moray viewed from the outskirts of Elgin, which is approximately seven miles away.

The case for a wind-power gazetteer

SEEKING TO SUPPORT its Climate Change Programme, Westminster announced a policy in 2001 to stimulate development so that the electricity generation industry could meet 10 per cent of the UK's needs from renewables by 2010.¹ Its five key aims were to:

- meet targets for emissions reduction;
- provide secure, diverse, sustainable and competitive energy supplies;
- stimulate the development of new renewables technologies;
- make the renewables industry competitive and provide employment;
- make a contribution to rural development.

Although responsibility for Britain's energy supplies generally remains with Westminster, implementing its renewable energy policy is delegated to the Scottish Executive. Scotland's target was originally 18 per cent although, since it has traditionally exported power south, it has never been clear whether it was 18 per cent of production or consumption. The Executive has since increased this to an ambitious '40 per cent by 2020' although doubts persist as to what these figures mean.²

Despite repeated calls from local authorities, statutory consultees, NGOs, environmental lobbyists, opposition MSPs and others for a strategy for renewable electricity generation, the Executive has instead chosen to follow Westminster's market-led approach combined with occasional small grants to R&D projects in Scotland.

The markets in question were created not by natural demand but by a series of regulatory interventions. These established a complex system of levies on consumers which are designed to escalate over the next decade.³ They are aimed at making 'renewables' an attractive short- to mid-term investment for an otherwise sceptical electricity supply industry. At the same time they coerce suppliers to invest according to a timetable that obliges them to have recourse to generation systems which the engineering profession generally views with suspicion.

The DTI predicts that by 2010 these levies will be worth £1 billion a year to the industry. Being in essence speculative, they can be lucrative, although the corollary – that prices may collapse rapidly if there is an excess of supply from unpredictable sources – is less generally acknowledged.

Despite the costs that consumers will incur under current policy, there is no mechanism for measuring whether the technologies chosen by electricity generators do actually either cut emissions or contribute to Westminster's other stated aims. The Scottish Executive recently repeated its belief that there is no need. This is disturbing because evidence is emerging that wind-power on the scale proposed for Scotland is destabilising in power engineering terms and ineffective at reducing emissions.⁴

Equally worrying is that there is no mechanism short of judicial review for stopping a planning application provided only it meets certain planning criteria assessed according to standards that many competent observers feel are lower than they should be.

In October 2004, Holyrood debated a unanimous report from its cross-party Enterprise and Culture Committee. This sharply criticised Executive policy as lacking in direction and as over-reliant on on-shore wind power. The Executive's response, described by one committee member as 'anodyne and self-congratulatory', rejected the charge. Its position was later

confirmed when Deputy First Minister Jim Wallace replied to an open letter from an environmental umbrella group, VIEWS OF SCOTLAND, to say that:

‘Your representation of the Executive’s renewables policy as being in thrall to wind development is an extremely inaccurate reflection of our position.’

The Holyrood debate took place in a context of emerging doubt about the ability of wind-power to replace Scotland’s ageing generation plant and concern that the Executive is pursuing a policy with potentially-serious economic, environmental and social consequences that have not been competently thought through. It might therefore be useful to clarify whether or not the Scottish Executive is indeed ‘in thrall to wind’. To attempt to provide an answer requires at least a first order approximation as to how much Installed Capacity looks likely to be built if the Executive’s exuberant confidence that market forces can plan a power supply system better than engineers goes unchecked.

Without a doubt, there is more information in the public domain than there was when a national sites map was first published about two years ago but it is still difficult to assess to what extent Jim Wallace’s claim can be regarded as valid.

The available information is often incomplete, hard to find and harder to read. It can be unreliable with different sources saying different things. Local authority data can be difficult to correlate with Executive reports; proposals are often recorded relatively late in the planning cycle; the data provided by the industry is for marketing rather than analytical purposes. And so on. A curious feature of the scene is the way that developers change the name of proposals or applications so frequently as to appear wilful. This can lead to difficulties.



One of the smaller borrow-pits from the 28-turbine Cairn Uish site near Elgin and (inset) a turbine base nearing completion at the same site



A view over the Isle of Lewis, earmarked by the wind-power industry for particularly intense development

Although statutory or *de facto* statutory consultees such as Scottish National Heritage and the RSPB are privy to most, probably all, of what is being mooted, it seems that ‘commercial confidentiality’ prevents this knowledge being made public. Few outside the industry (nor, one suspects, that many in it) are fully aware of the number and extent of wind power sites proposed for Scotland. Without this information, the debate cannot but be distorted.

For its inaugural research project, the Scottish Wind Assessment Project (SWAP) set out to provide as full a picture as is practicable of the Scottish wind energy scene given the fragmented and often elusive nature of the material. What is presented here is a strategic overview rather than a technical assessment but remains, for now at least, probably the best picture available to the public at large as to how Scotland’s decision makers envision the growth of wind energy provision – and of how radically different will be the landscape and environment we leave to our children and their visitors as a result.

The research on which this paper reports was made possible by the generosity of the sponsors of the Scottish Wind Assessment Project. Volunteers and staff alike thank them for their support and express the hope that the report makes a useful contribution to a vital national debate.

Notes

¹ See, e.g. *New and Renewable Energy, Prospects for the 21st Century*, DTI, n.d. but published in 2001.

² *Phil Gallie*: Will the Minister clarify whether the 18 percent target was set on the basis of sent-out megawatts or of the capacity of units that could be generated? If it is based on the latter, on what load factors has the Executive based its targets?

Lewis Macdonald: ... we have attempted to predict where we think electricity generation requirements will go and to encourage electricity companies to apply to provide the necessary share of the capacity that is set out in our targets. (*Scottish Parliamentary Questions*, November 2003).

³ The system, known as the Renewables Obligation and the Renewables Obligation (Scotland) is administered by OFGEM, which publishes explanatory papers. In practice, the system is less transparent than they make it seem.

⁴ See, e.g. *The Impact of Wind Power Generation in Ireland on the Operation of Conventional Plant and the Economic Implications*, ESB National Grid, 2004; E.ON Netz, *Wind Report 2004; Reduction in Carbon Dioxide emissions: estimating the potential contribution from wind power*, Renewable Energy Foundation, 2004.

How the gazetteer was compiled

THE DEVELOPMENT and construction of renewable energy projects are governed by UK-wide legislation.¹ Proposals for wind-power sites under 50MW capacity are determined by local authorities, which publish the applications locally. Some authorities, notably Highlands and Islands, have lists on their web sites though not always in the most amenable of formats.

The project had to start by monitoring Scotland's 32 local authorities. Only one (curiously, the one responsible for Holyrood) has yet to receive a significant wind-power application.

Proposals for sites in Scotland over 50MW Installed Capacity, known as section 36 or s.36 applications, are determined by Scottish ministers with local authorities relegated to the role of consultees. After a coy start, core information can now be obtained from the Scottish Executive about s.36 and other schemes though we suggest that researchers independently confirm points of detail.

The progress of s.36 applications once they have been lodged and the submission of Environmental Assessment and other documentation to the authorities can be monitored in *The Edinburgh Gazette*. The content of announcements is beyond the control of its publishers and, not infrequently, OS grid references and other details are incorrect and/or incomplete.

The national and local press have both followed the development of the wind-power industry and are invaluable sources of information, even if, at least until recently, they have tended to be oddly uncritical of industry claims. In particular, reports about the happy resolution of this or that hitch at this or that site should be treated with caution.

Due, one assumes, to unexpected public scepticism, developers seem more reluctant than formerly to publicise proposals early in the planning cycle. But we find that data on capacity and location published by them or by the British Wind Energy Association are generally reliable once approval has been obtained. For approved or operational sites only, discrepancies between these and other sources are generally resolved by reliance on BWEA and developers' data – provided it is remembered that their material is marketing publicity, not a research tool.

Autonomous or semi-autonomous community groups are a source of information about 'community' projects although the relationship between some of the material they circulate and the wider wind industry is not always as clear as it might be.

Web sites run by environmental lobby groups with a strong pro-wind and increasingly commercial bias such as Friends of the Earth, Greenpeace and the World Wildlife Fund (who jointly sponsor the *Yes2Wind* web site) cannot, in our experience, be relied on although *Yes2Wind* has improved since its risibly inaccurate early days. For *aficionados* only.

Finally, there are several web sites run by local campaigners against wind-power. The information they contain generally reflects lengthy liaison with planning authorities as well as local research. Although this report has not used data from these sites without independent verification, it should be acknowledged that most are generally reliable and often feature useful maps. Without them, this gazetteer would not have been as comprehensive as it is.

Two teams worked separately on compiling lists before bringing their findings together. The relatively few discrepancies that came to light as a result suggest that, whilst it is known that there are many embryonic proposals hidden from the public eye, what has made it into the public domain is captured here with reasonable accuracy. Errors will be acknowledged and corrected.

¹ Principally the Electricity Act (1989), the Utilities Act (2000) and the Energy Act (2004).

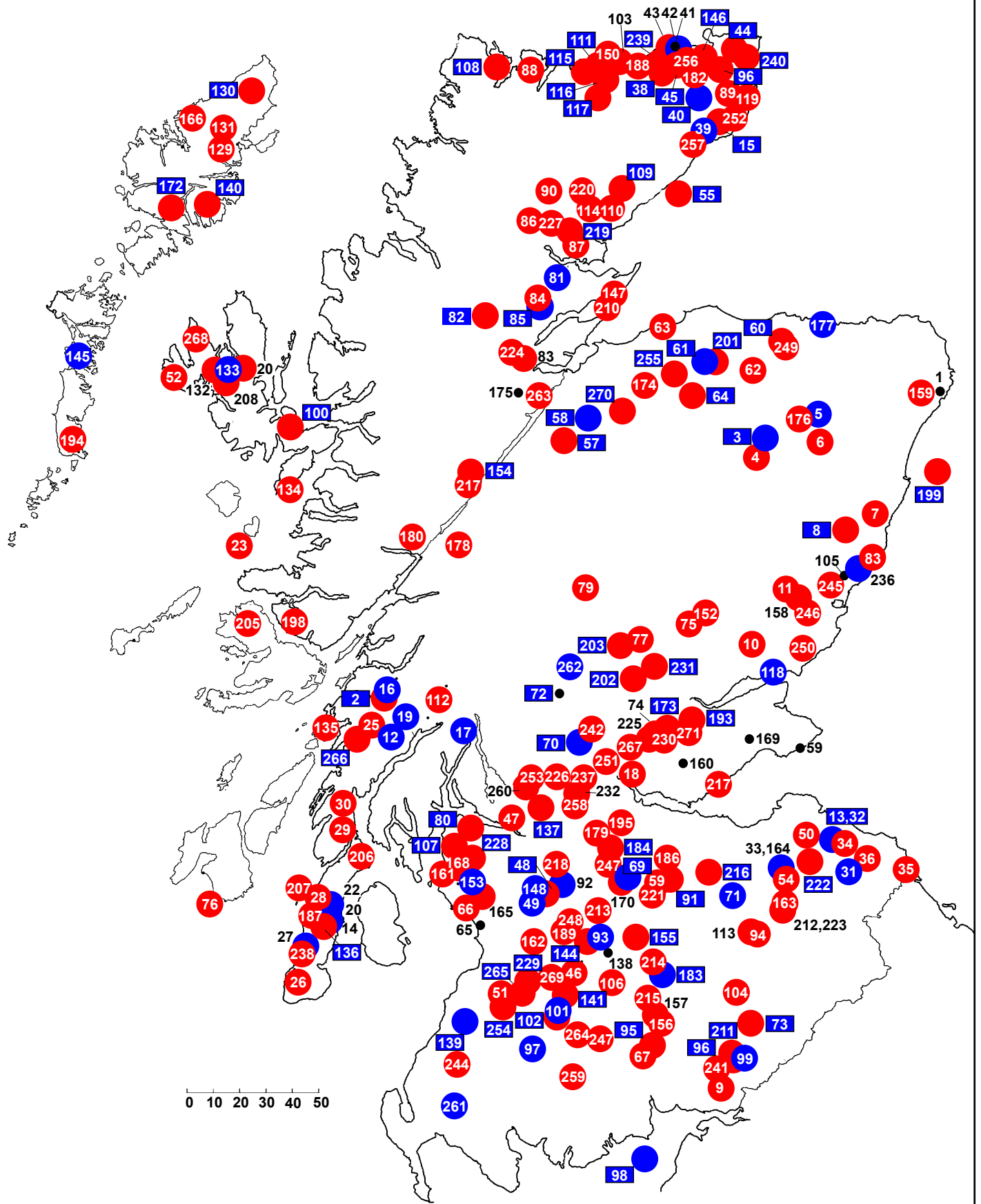
Summary of sites by Planning Authority

Aberdeenshire		East Lothian		Strathy	111	Corbie Shank	073
Auchnagatt	159	Aikengall	034	Strathy North Forest	116	Craik Forest	104
Boyndie Airfield	177	Johnscleugh	050	Strathy South Forest	117	Crystal Rig	013
Chapel of Barras	083	East Renfrewshire		Stroupster	240	Crystal Rig extn	032
Clashindarroch Forest	003	Ardoch Farm	148	Upper Breakish	100	Dun Law	033
Dummuies	176	Myres Hill	049	Inverclyde		Dun Law extn	164
Fetteresso	008	Falkirk		Gryff Reservoir	080	Fallago Ridge	222
Glens of Foudland	005	Slammanan Plateau	195	Outerwards	107	Lamberton Moor	035
Hill of Garvock	105	Fife		Midlothian		Long Park	212
Insch	006	Clatto Hill	169	Auchencorth Moss	216	Longpark	223
Kildrummy	004	Hill of Allison	059	Moray		Minch Moor	113
Meikle Carewe	007	Little Raith	217	Aultmore	060	Monashee Farm	036
Stoneyhill	001	Glasgow		Balnamoon Farm	249	Sell Moor	163
Tullo	236	Castlemilk	218	Berry Burn	255	Toddleburn	054
Angus		Highland		Cairn Uish	061	Shetland	
Ark Hill	010	Abriachan Woods	263	Cairn Uish extn	201	Burra Dale	125
Careston Estate	158	Achany	086	Drummuir	062	Burra Dale extn	106
Dusty Drum	250	Achnacarry	180	Findhorn	063	Busta Estate	196
Montreathmont	246	Achormlarie	087	Findhorn extn	021	Fair Isle	143
Muir of Pert	245	Akron	103	Paul's Hill	064	Hamari Field	126
Shandford	011	A'Mhoine	088	Paul's Hill extn	200	Muckla Moor	233
Argyll & Bute		Ardnamurchan, Morvern	198	North Ayrshire		Susseter Hill	127
Allt Dearg	030	Baillie	045	Ardeer	065	Tresta	128
An Suidhe	012	Beinn Tharsuinn	081	Ardrossan	066	Yell	190
Beinn an Tuirc	014	Ben Aketil	132	Hunterston	161	South Ayrshire	
Beinn an Tuirc extn	136	Bettyhill	115	Kaim Hill	068	Hadyard Hill	139
Beinn Ghlas	016	Bilbster	089	Kelburn Estate	168	Mark's Hill	244
Carraig Gheal	002	Boblainy Forest	175	Ladyland Moor	228	South Lanarkshire	
Clachan Flats	017	Borrowston	041	Lissens Moss	165	Black Law	069
Cruach Mhor	019	Boultach	204	Wardlaw Wood	153	Calla Farm	221
Dervaig	205	Braemore	257	North Lanarkshire		Camps Reservoir	214
Deucharan Hill	022	Broubster	038	Blacktongue Farm	179	Clyde Valley Windfarm	183
Ederline	266	Buolfruch	039	Bracco	184	Daer Reservoir	215
Gigha	207	Burn of Whilk	252	Ferrieshaw	247	Dunduff Quarry	213
Inverleiver Forest	025	Cairn Duhie	174	Offshore		Dungavel Hill	248
Isle of Luing	135	Cambusmore	219	Aberdeen Harbour	199	East Kilbride	092
Kintry Farm	076	Camster	015	Beatrice Field	055	Gair Farm	170
Largie	028	Carn Dearg Hill	023	Robin Rigg	098	Glengavel	189
Machrihanish	026	Causeymire	040	Orkney		Glespin	138
Meall Mhor	029	Corriemoillie Forest	149	Bu Farm	120	Greenaton Farm	151
Muasdale Farm	187	Dalchork Wood	090	Bu Farm extn	185	Hagshaw Hill	093
North Kintyre	206	Dalreavoch	220	Burgar Hill	142	Harburn Estate	186
Stacain	112	Dunmaglass	056	Burgar Hill extn	192	Harrow's Law	091
Stronachulin	181	Dunmaglass extn	057	Burray	167	Headsmuir Farm	171
Tangy Farm	027	Edinbane	133	Isle of Flodda	191	Spireslack	144
Tangy Farm extn	238	Farr	058	Orphir	122	Stallashaw Moss	053
Clackmannanshire		Forss	042	Powdykes	121	Whitelee Forest	048
Burnfoot	251	Forss extn	043	Rothiesholm	243	Stirling	
Dumfries & Galloway		Glen Bernisdale	020	Spur Ness	124	Ardeonaig	262
Allfornought Hill	009	Glen Kirk	270	Thorfin	123	Ballindalloch Muir	260
Artfield Fell	261	Glen Moriston	154	Ward Hill	235	Braes of Doune	070
Balmaclellan	259	Glen Ullinish	208	West Hill	234	Buchlyvie Muir	253
Craig	099	Gordonbush	109	Perth & Kinross		Cairnoch Hill	258
Dalswinton	067	Hallin	268	Abercairny	202	Cowiehall	018
Ewe Hill	211	Hill of Fearn	147	Balado	160	Duntreath	137
Hareshaw Rig	156	Hill of Lieurary	182	Calliacher	203	Glenogle Farm	072
Harestanes	095	Keoldale	108	Drumderg	152	Hart Hill (East)	232
Harestanes Height	157	Kilbraur	110	Easter Newborn	075	Kippen Muir	226
Minsca	241	Lairg Estate	227	Green Knowes	267	Limmer Hill	155
Torrs Hill	097	Lochluichart	082	Griffin Forest	077	Slymaback	242
Wether Hill	264	Lorgill	052	Knowehead	173	Touch Reservoirs	237
Windy Standard	101	Marybank	224	Little Law	225	West Dunbartonshire	
Windy Standard extn	102	Melvich	150	Lochelbank	193	Kilpatrick Hills	047
Dundee		Nigg Hill	210	Logiealmond	231	Western Isles	
Michelin Tyre Factory	118	Novar	084	Mellock Hill	230	Arnish Moor Wind Cluster	129
East Ayrshire		Novar extn	085	Pole Hill	078	Eisgen Estate	172
Afton	141	Oust	256	Snowgoat Glen	074	Lewis Wind	130
Benquhat Hill	265	Reay	188	Tillyrie Hill	271	Linsiadar	166
Dersalloch	254	Scoolary	044	Trinafour	079	Lionacleit	145
Hare Hill	046	Shebster	239	Scottish Borders		Pairc Estate	140
Kyle Forest	229	Sleat	134	Black Hill	031	Pentland Road	131
Little Kilmain	051	Spean Bridge	178	Bowbeat Hill	071	South Uist Estate	194
Mid Hill & Glen Gary	162	Spittal Hill	096	Broadmeadows	094		
Pencoe Forest	269	Stirkoke	119	Carcant	037		
		Strath Brora (East)	114				

Key to sites

001	Stoneyhill	069	Black Law	136	Beinn an Tuirc extn	204	Boultach
002	Carraig Gheal	070	Braes of Doune	137	Duntreath	205	Dervaig
003	Clashindarroch Forest	071	Bowbeat Hill	138	Glespin	206	North Kintyre
004	Kildrummy	072	Glenogle Farm	139	Hadyard Hill	207	Gigha
005	Glens of Foudland	073	Corbie Shank	140	Pairc Estate	208	Glen Ullinish
006	Insch	074	Snowgoat Glen	141	Afton	210	Nigg Hill
007	Meikle Carewe	075	Easter Newborn	142	Burgar Hill	211	Ewe Hill
008	Fetteresso	076	Kintry Farm	143	Fair Isle	212	Long Park
009	Allfornought Hill	077	Griffin Forest	144	Spireslack	213	Dunduff Quarry
010	Ark Hill	078	Pole Hill	145	Lionacleit	214	Camps Reservoir
011	Shandford	079	Trinafour	146	Durran	215	Daer Reservoir
012	An Suidhe	080	Gryff Reservoir	147	Hill of Fearn	216	Auchencorth Moss
013	Crystal Rig	081	Beinn Tharsuinn	148	Ardoch Farm	217	Little Raith
014	Beinn an Tuirc	082	Lochluichart	149	Corriemoillie Forest	218	Castlemilk
015	Camster	083	Chapel of Barras	150	Melvich	219	Cambusmore
016	Beinn Ghlas	084	Novar	151	Greenaton Farm	220	Dalreavoch
017	Clachan Flats	085	Novar extn	152	Drumderg	221	Calla Farm
018	Cowiehall	086	Achany	153	Wardlaw Wood	222	Fallago Ridge
019	Cruach Mhor	087	Achormlarie	154	Glen Moriston	223	Longpark
020	Glen Bernisdale	088	A'Mhoine	155	Limmer Hill	224	Marybank
021	Findhorn extn	089	Bilbster	156	Hareshaw Rig	225	Little Law
022	Deucharan Hill	090	Dalchork Wood	157	Harestanes Height	226	Kippen Muir
023	Carn Dearg Hill	091	Harrow's Law	158	Careston Estate	227	Lairg Estate
025	Inverleiver Forest	092	East Kilbride	159	Auchnagatt	228	Ladyland Moor
026	Machrihanish	093	Hagshaw Hill	160	Balado	229	Kyle Forest
027	Tangy Farm	094	Broadmeadows	161	Hunterston	230	Mellock Hill
028	Largie	095	Harestanes	162	Mid Hill & Glen Gary	231	Logiealmond
029	Meall Mhor	096	Spittal Hill	163	Sell Moor	232	Hart Hill (East)
030	Allt Dearg	097	Torrs Hill	164	Dun Law extn	233	Muckla Moor
031	Black Hill	098	Robin Rigg	165	Lissens Moss	234	West Hill
032	Crystal Rig extn	099	Craig	166	Linsiadar	235	Ward Hill
033	Dun Law	100	Upper Breakish	167	Burray	236	Tullo
034	Aikengall	101	Windy Standard	168	Kelburn Estate	237	Touch Reservoirs
035	Lamberton Moor	102	Windy Standard extn	169	Clatto Hill	238	Tangy Farm extn
036	Monashee Farm	103	Akron	170	Gair Farm	239	Shebster
037	Carcant	104	Craik Forest	171	Headsmuir Farm	240	Stroupster
038	Broubster	105	Hill of Garvock	172	Eisgen Estate	241	Minsca
039	Buolfruch	106	Burra Dale extn	173	Knowehead	242	Slymaback
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042	Forss	109	Gordonbush	176	Dummuies	245	Muir of Pert
043	Forss extn	110	Kilbraur	177	Boyndie Airfield	246	Montreathmont
044	Scolary	111	Strathy	178	Spean Bridge	247	Ferrieshaw
045	Baillie	112	Stacain	179	Blacktongue Farm	248	Dungavel Hill
046	Hare Hill	113	Minch Moor	180	Achnacarry	249	Balnamoon Farm
047	Kilpatrick Hills	114	Strath Brora (East)	181	Stronachulin	250	Dusty Drum
048	Whitelee Forest	115	Bettyhill	182	Hill of Lieurary	251	Burnfoot
049	Myres Hill	116	Strathy North Forest	183	Clyde Valley	252	Burn of Whilk
050	Johnscleugh	117	Strathy South Forest	184	Bracco	253	Buchlyvie Muir
051	Little Kilmain	118	Michelin Tyre Factory	185	Bu Farm extn	254	Dersalloch
052	Lorgill	119	Stirkoke	186	Harburn Estate	255	Berry Burn
053	Stallashaw Moss	120	Bu Farm	187	Muasdale Farm	256	Oust
054	Toddleburn	121	Powdykes	188	Reay	257	Braemore
055	Beatrice Field	122	Orphir	189	Glengavel	258	Cairnoch Hill
056	Dunmaglass	123	Thorfin	190	Yell	259	Balmacellan
057	Dunmaglass extn	124	Spur Ness	191	Isle of Flodda	260	Ballindalloch Muir
058	Farr	125	Burra Dale	192	Burgar Hill extn	261	Artfield Fell
059	Hill of Allison	126	Hamari Field	193	Lochelbank	262	Ardeonaig
060	Aultmore	127	Susseter Hill	194	South Uist Estate	263	Abriachan Woods
061	Cairn Uish	128	Tresta	195	Slammanan Plateau	264	Wether Hill
062	Drummuir	129	Amish Moor Wind	196	Busta Estate	265	Benquhat Hill
063	Findhorn	130	Lewis Wind	198	Ardnamurchan,	266	Ederline
064	Paul's Hill	131	Pentland Road	199	Aberdeen Harbour	267	Green Knowes
065	Ardeer	132	Ben Aketil	200	Paul's Hill extn	268	Hallin
066	Ardrossan	133	Edinbane	201	Cairn Uish extn	269	Pencoe Forest
067	Dalswinton	134	Sleat	202	Abercairny	270	Glen Kirk
068	Kaim Hill	135	Isle of Luing	203	Calliachar	271	Tillyrie Hill

Wind-power sites proposed for Scotland



139 s.36 Application (>50MW)

● Proposal or application

● Approved or operational

● Recently failed

Scottish wind power in context

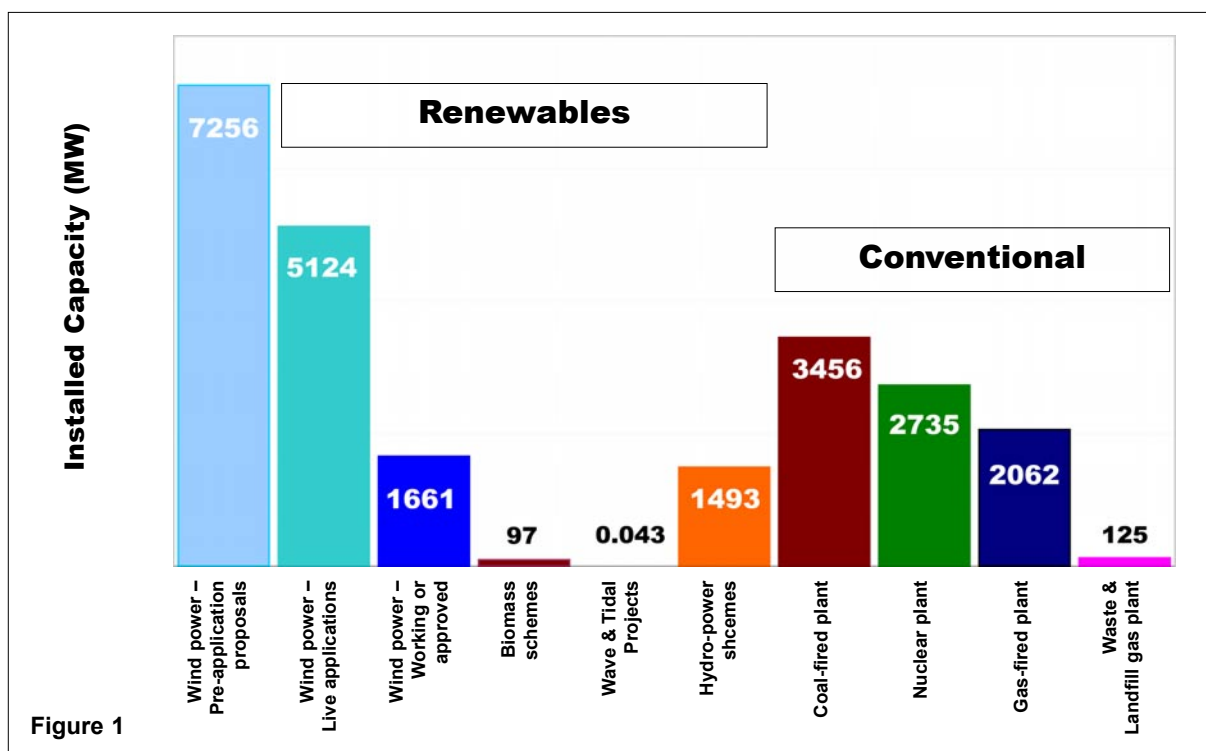
ALTHOUGH FREQUENTLY cited as proof that generating power from the wind is not only viable but environmentally beneficial *vis a vis* conventional generation, the claim that Denmark obtains 20 per cent of its electricity from its 3,100MW of wind-power capacity is not tenable without qualification. A (fortuitously) favourable system of cross-border Interconnectors masks the fact that, in practice, wind provides on average no more than about five per cent of Denmark's power. Around 80 per cent is exported, much of it in ways that inhibit emissions cuts.

Germany, Europe's largest investor in wind power, has 14,350MW Installed Capacity (about double that of the United States but, by coincidence, comparable to that mooted for Scotland – see below). Despite the gloss, grid operator E.ON Netz's *Wind Report 2004* is pessimistic, linking grid instability, low productivity and high costs to increases in wind capacity.

Ireland's grid structure, like Scotland's, lacks the robustness of the Danish model. Grid operator ESB had to impose a moratorium on the connection of new wind power in December 2003, following operational problems associated with a modest 210MW wind-power penetration (approx 4% by IC). This was lifted in July after a modified grid code imposed new conditions on generators but it is not known how successful this has been.

Experienced engineers reportedly share the concerns of lay people as to how, in the light of the European experience, more than a fraction of the capacity envisaged for Scotland can be accommodated within the UK, let alone locally. England and Wales are already pursuing their own programme for wind-power which will itself test local infrastructure resilience.

Nor is clear how the power generated in Scotland will get to the rest of the UK given that the Scotland-England Interconnector is limited to 2,000MW. There has been little public discussion of the need to fund substantial upgrades between Scotland's Central Belt and at least the northernmost of England's population centres. There almost seems to be a perception in political circles that Stornoway to Stirling will do the trick.



Note: Data for established non-wind generation sources are on both the DTI and Scottish Executive web sites. Pumped storage and Inverkip (not in use and currently for sale) are omitted. Apart from wind (shown separately) the figures include applications and consents, the most significant being the 400MW gas-fired plant at Westfield, Fife consented in June 2003.

‘Representation of the Executive’s renewables policy as being in thrall to wind development is an extremely inaccurate reflection of our position’
 Deputy First Minister Jim Wallace

Figures 1 and 2 compare the total wind capacity mooted for Scotland to the known totals for hydro and other renewables on the one hand and conventional plant on the other.

It is acknowledged that some of the proposals (such as Wind Energy’s 500-turbine proposal for Ardanmurchan, Morvern and Mull or Shetland Council’s proposal to develop a 300-turbine scheme on its Busta Estate) are, in the opinion of many, ‘aspirational’, but the fact remains that they are in the public domain and that there is no mechanism for the competent independent evaluation of their technical or commercial merit.

Consideration as to whether the generation infrastructure can absorb their input or whether they consequently contribute to a reduction of emissions is explicitly excluded from Scottish Executive policy.

In thrall to wind? There is certainly a case to answer.

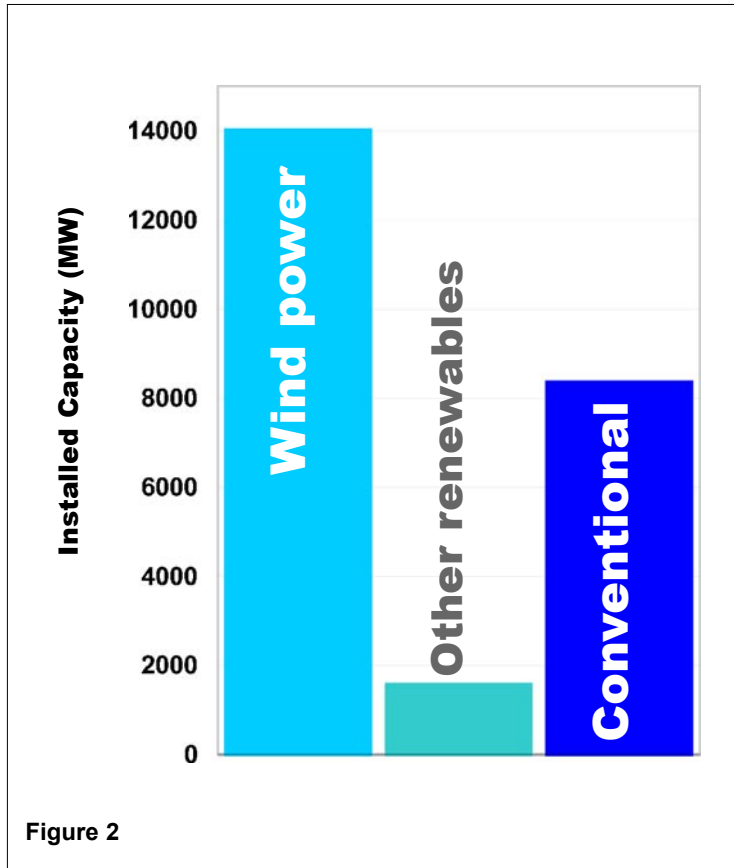


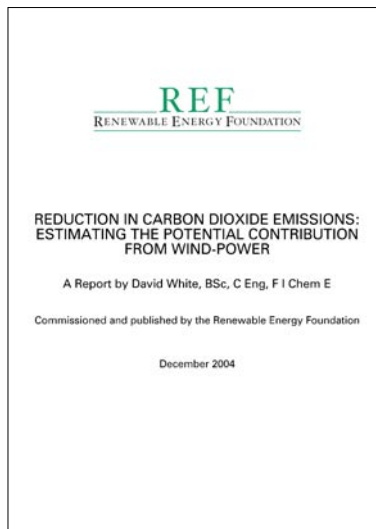
Figure 2

The generating capacity either installed or mooted for installation in Scotland under the Scottish Executive’s current energy regime

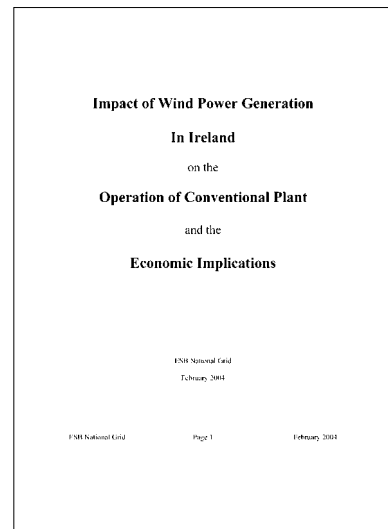
Three important papers examining the relationship between significant input from wind power in a generation mix, the electricity grid systems with which it integrates and the efficacy of the emissions-reduction programme that purportedly drove their construction. They are available on the Internet.



Explains the effect of wind generation on grid stability and the need for reserve capacity.
 Published by E.ON



Exhaustively challenges the notion that wind power cuts CO₂ emissions. Published by the Renewable Energy Foundation



Examines aspects of the cost of wind generation and its impact on system integrity. Published by ESB National Grid

A Gazetteer of Scottish wind-power National Summary

	Number of Sites	Number of Turbines	Installed Capacity
Proposals	67	1,702	3,623
Anemometry	33	632	1,270
Scoping	33	1,070	2,504
Live Application	54	1,872	4,858
On appeal	6	85	186
Rejected but resubmitted	3	47	80
Approved but not started	25	360	745
Under construction	8	246	554
Operational (11 are 1 or 2 turbines only)	27	367	362
Totals	256	6,519	14,411 MW
Rejected or withdrawn	8	121	196
Rejected after Public Inquiry	2	17	34
Totals	10	138	230 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
Aberdeenshire				
159 Auchnagatt	Not known Between Auchnagatt and Ellon off A948	Anemometry	NJ 94 38	
177 Boyndie Airfield	Renewable Development Company 4km W of Banff	Approved, not started	NJ 62 64 7 x 2.5	17.5 MW
083 Chapel of Barras	St John's Hill Ltd 5km NW of Kenner	Proposal	NO 835 775 10 x 2	20 MW
003 Clashindarroch Forest	AMEC Wind 9km SW of Huntly	Live application	NJ 43 29 47 x 2.8	s.36 129.25 MW
176 Dummuies	Tetro Energy Ltd 6km SE of Huntly	Approved, not started	NJ 56 35 7 x 1.5	10.5 MW
008 Fetteresso AKA Mid Hill, Cairn o'Mount	Olsen Renewables 16km W of Stonehaven	Approved, not started	NO 801 869 23 x 2	46 MW
005 Glens of Foudland AKA Bissell Moss, Hill of Foudland	Renewable Energy Systems Between Inverurie and Huntly	Under construction	NJ 61 37 21 x 1.3	27.3 MW
105 Hill of Garvock AKA Laurencekirk	Garvock Hill Wind Farm 2km E of Laurencekirk	Rejected or withdrawn	NO 73 70 8 x 1.5	12 MW
006 Insch	Olie Oldgard & BRDR Mayjand 26km ENE of Inverurie	Anemometry	~NJ 63 28	
004 Kildrummy AKA Clashnarae Hill	nPower Renewables 4km W of Lumsden	Proposal	NJ 41 21 20 x 1.7	34 MW
007 Meikle Carewe	Renewable Energy Systems 6km NW of Stonehaven	Rejected but resubmitted	NO 82 92 10 x 0.6	5.7 MW
001 Stoneyhill AKA Baillie, Buchan Windfarm	Dudley Developments Nr Hatton, 8km SW of Peterhead	Rejected or withdrawn	NK 07 39 24 x 1.5	36 MW
236 Tullo AKA Garvock Hill	Tullo Wind Farm Ltd 2km E of Laurencekirk	Approved, not started	NO 765 715 8 x 1.5	12 MW
Total for Aberdeenshire	13 Applications,	2 Rejected	153 Turbines	302.25 MW

Angus

010 Ark Hill	Renewable Energy Systems 6km S of Glamis	Rejected but resubmitted	NO 38 46 8 x 1.3	10.4 MW
158 Careston Estate	Renewable Energy Systems 13km NW of Brechin	Live application	NO 48 67 26 x 2	s.36 52 MW
250 Dusty Drum	Private Developer 7km N of Carnoustie	Scoping	NO 555 415 4 x 1	4 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
246 Montreathmont	Wind Prospect 14km NE of Forfar	Scoping	NO 576 543 20 x 2	40 MW
245 Muir of Pert	Private Developer 5km NE of Brechin	Scoping	NO 655 635 4 x 1	4 MW
011 Shandford	E.ON UK Renewables 11km NW of Brechin	Anemometry	NO 49 64	
Total for Angus	6 Applications, None rejected		62 Turbines	110.4 MW

Argyll & Bute

030 Allt Dearg AKA Ormsary	nPower Renewables 9km SW of Lochgilphead	Scoping	NR 835 799 15 x 3	45 MW
012 An Suidhe AKA Dalmally	E.ON UK Renewables 10km W of Inverary	Approved, not started	NN 00 05 24 x 1.8	42 MW
014 Beinn an Tuirc	CRE Energy 7km SW of Carradale, Mull of Kintyre	Operational	NR 75 37 46 x 0.7	30.36 MW
136 Beinn an Tuirc extn	CRE Energy 7km SW of Carradale, Mull of Kintyre	Proposal	NR 75 37 28 x 2.5	s.36 70 MW
016 Beinn Ghlas	nPower Renewables 6km WSW of Taynuilt	Operational	NM 97 25 14 x 0.6	8.4 MW
002 Carraig Gheal AKA Fernoch, Loch Nant	Green Power 13km SE of Oban	Live application	NM 96 20 36 x 2	s.36 72 MW
017 Clachan Flats AKA Corriechrevie, Ardkinglas	AMEC Wind By Cairndow nr head of Loch Fyne	Approved, not started	NN 185 155 9 x 1.8	15.75 MW
019 Cruach Mhor	CRE Energy 28km SW of Crianlarich head of glendaruel	Operational	NR 985 865 35 x 0.9	30.1 MW
205 Dervaig	Sgurr Energy/Private Developer 12km SW of Tobermory, Isle of Mull	Proposal	NM 454 501 8 x 1	8 MW
022 Deucharan Hill AKA Cruach Mor Cruach	E.ON UK Renewables 8km NW of Carradale	Operational	NR 76 44 9 x 1.8	15.75 MW
266 Ederline AKA An Suidhe	nPower Renewables 6km SE of Ford	Scoping	NM 945 025 60 x 2	s.36 120 MW
207 Gigha	Gigha Renewable Energy Isle of Gigha	Under construction	NF 766 048 3 x 0.6	1.8 MW
025 Inverleiver Forest	CRE Energy Due S of Loch Avich	Proposal	~NM 91 12 17 x 2	34 MW
135 Isle of Luing	Private S of Mull and NE of Colonsay	Operational	NM 74 10 1 x 0.0	0.05 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
076 Kintry Farm	Elsam A/S Oa, Islay	Anemometry	NR 307 442	
028 Largie AKA Achnafad	Eurus Energy E of Tayinloan	Live application	NR 735 505 19 x 2	38 MW
026 Machrihanish	nPower Renewables 3km W of Campbeltown, Kintyre	Anemometry	NR 63 20	
029 Meall Mhor	Pole Hill Power 6km N of Tarbert, Kintyre	Live application	NR 83 74 1 x 1	0.96 MW
187 Muasdale Farm	Eurus Energy 5km SE of Kilmore	Anemometry	NM 918 227	
206 North Kintyre AKA Kennacraig	nPower Renewables 2km ESE of Kennacraig	Scoping	NR 865 625 35 x 1.3	45.5 MW
112 Stacain AKA Glen Shira	Wind Prospect By Lochan Shira, 16km NE of Inverary	Proposal	NN 169 215 17 x 2.5	42.5 MW
181 Stronachulin	Renewable Energy Systems 11km N of Tarbert	Proposal	4 x 1	3.8 MW
027 Tangy Farm	Scottish and Southern Energy 8km NW of Campbeltown, Kintyre	Operational	NS 72 28 15 x 0.9	12.75 MW
238 Tangy Farm extn	Scottish and Southern Energy 8km NW of Campbeltown, Kintyre	Live application	NR 674 286 7 x 2	14 MW
Total for Argyll & Bute	24 Applications, None rejected		403 Turbines	650.72 MW
Clackmannanshire				
251 Burnfoot	Wind Prospect 7km NE of Tilliecultrie	Proposal	NN 904 030 20 x 2	40 MW
Total for Clackmannanshire	1 Application None rejected		20 Turbines	40 MW
Dumfries & Galloway				
009 Allfornought Hill	Renewable Energy Systems 8km SW of Langholm	Anemometry	NY 299 788	
261 Artfield Fell	Scottish and Southern Energy 17km NE of Stranraer	Under construction	NX 230 670 15 x 1.3	19.95 MW
259 Balmaclellan AKA Black Craig	DP Energy Cork 3km ENE of New Galloway	Proposal	NX 681 790 45 x 1.5	67.5 MW
099 Craig AKA Carlesgill Hill, Langholm	Craig Wind Farm Co 6km NW of Langholm	Approved, not started	NY 321 859 5 x 0.6	3 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
067 Dalswinton AKA Glenmaid Moor, Pennyland Moor	Airtricity 11km NNE of Dumfries	Live application	NX 945 893 16 x 2	32 MW
211 Ewe Hill	CRE Energy 10km W of Langholm	Live application	NY 284 876 37 x 2.5	s.36 92.5 MW
156 Hareshaw Rig	11km SW of Moffat	Anemometry	NY 01 98	
095 Harestanes AKA Forest of Ae	Scottish and Southern Energy 14km E of Thornhill	Live application	NX 98 89 94 x 3	s.36 282 MW
157 Harestanes Height	7km SW of Moffat	Anemometry	NS 998 014	
241 Minsca AKA Waterbeck	Airtricity 5km E of Lockerbie	Approved, not started	NY 228 814 17 x 2	34 MW
097 Torrs Hill	Torrs Hill Wind Farm 10km NW of New Galloway	Approved, not started	NX 52 89 2 x 2	4 MW
264 Wether Hill AKA Moniavie	CRE Energy 6km NW of Moniavie	Live application	NX 702 941 14 x 3	42 MW
101 Windy Standard AKA Benbrack	nPower Renewables 8km NE of Carsphairn	Operational	NS 61 01 36 x 0.6	21.6 MW
102 Windy Standard extn	Natural Power 8km NE of Carsphairn	Live application	NS 61 01 36 x 3	s.36 108 MW
Total for Dumfries & Galloway	14 Applications, None rejected		317 Turbines	706.55 MW
Dundee				
118 Michelin Tyre Factory	Michelin Between Dundee & Broughtly Ferry	Approved, not started	NO451327 3 x 1.5	4.5 MW
Total for Dundee	1 Application None rejected		3 Turbines	4.5 MW
East Ayrshire				
141 Afton	E.ON UK Renewables 8km SSE of New Cumnock	Live application	NS 627 042 27 x 2.7	s.36 72.9 MW
265 Benquhat Hill AKA Chalmerston	Benquhat Windfarm 2km N of Dalmellington	Live application	NS 465 105 25 x 2	s.36 50 MW
254 Dersalloch	CRE Energy 3km W of Dalmelington	Scoping	NS 421 039 31 x 3	s.36 93 MW
046 Hare Hill	CRE Energy 5km SE of New Cumnock	Operational	NS 65 09 20 x 0.7	13.2 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
229 Kyle Forest	AMEC Wind 5km NNE of Dalmelington	Live application	NS 456 105 103 x 2.5	s.36 257.5 MW
051 Little Kilmain	EcoGen 8km NW of Dalmelington	Proposal	NS 41 10 6 x 1.3	7.8 MW
162 Mid Hill & Glen Gary	Community Windpower 10km N of Cumnock	Proposal	NS 58 30 6 x 2	12 MW
269 Pencoe Forest	North British Wind Power 5km ENE of Dalmelington	Scoping	NS 61 08 28 x 3	s.36 84 MW
Total for East Ayrshire	8 Applications, None rejected		246 Turbines	590.4 MW

East Lothian

034 Aikengall AKA Heart Law, Greater Moynut	Natural Power 9km SSE of Dunbar	Scoping	NT 72 66 24 x 2	48 MW
050 Johnsleugh	Renewable Energy Systems 1km SW of Dunbar	Anemometry	~NT 58 70	
Total for East Lothian	2 Applications, None rejected		24 Turbines	48 MW

East Renfrewshire

148 Ardoch Farm	CRE Energy 2km SE of Eaglesham	Approved, not started	NS 58 48 3 x 2	6 MW
049 Myres Hill	Thorfinn Wind "A" 3km SW of Eaglesham	Operational	NS 5746 2 x 0.9	1.8 MW
Total for East Renfrewshire	2 Applications, None rejected		5 Turbines	7.8 MW

Falkirk

195 Slammanan Plateau	9km E of Cumbernauld	Anemometry		
Total for Falkirk	1 Application None rejected		0 Turbines	0 MW

Fife

169 Clatto Hill	CRE Energy 5km N of Kennoway	On appeal	NO 34 06 17 x 2	34 MW
059 Hill of Allison AKA Loumuth	Pure Wind 4km NE of Leven	Failed	NO 42 02	
217 Little Raith AKA Mosmorran	2km E of Cowdenbeath	Proposal	NT 205 915 9 x 1.5	13.5 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
Total for Fife	3 Applications, None rejected		26 Turbines	47.5 MW
Glasgow				
218 Castlemilk	Castlemilk Econ SE of Glasgow, nr East Kilbride	Proposal	NS 625 585 3 x 2	6 MW
Total for Glasgow	1 Application None rejected		3 Turbines	6 MW
Highland				
263 Abriachan Woods	Private Developer 5km NE of Drumnadrochit	Live application	NH 558 360 2 x 2	4 MW
086 Achany	Scottish and Southern Energy 8km SW of Lairg	Anemometry	NC 513 040	
180 Achnacarry	North British Wind Power 14km NNE of Fort William	On appeal	NN 16 87	
087 Achormlarie	AMEC Wind 15km NW of Dornoch	Anemometry	NC 66 97	
103 Akron	Scottish and Southern Energy 20km ESE of Thurso	Proposal	NC 912 609 15 x 2.3	34.5 MW
088 A'Mhoine	Atlantic Energy 7km WNW of Tongue	Proposal	NC 51 60 2 x 0.5	1 MW
198 Ardnamurchan, Morvern & Mull	Wind Energy Morvern Peninsula and N end of Mull	Anemometry	NM 68 54 500 x 2	s.36 1000 MW
045 Baillie AKA Westfield	Baillie Wind Farm 4km SSE of Borrowston	Live application	ND 035 655 25 x 3	s.36 75 MW
081 Beinn Tharsuinn AKA Struie, Edderton	CRE Energy 12km NNW of AIness	Approved, not started	NH 617 819 17 x 1.8	29.75 MW
132 Ben Aketil AKA Dunvegan	Renewable Development Company 7km E of Dunvegan, Isle of Skye	Live application	NG 33 46 14 x 1.5	21 MW
115 Bettyhill	North British Windpower 4km SE of Bettyhill	Proposal	NC 74 60 50 x 2.5	s.36 125 MW
089 Bilbster AKA Flex Hill	Private Developer 11km WNW of Wick	Live application	ND 271 518 3 x 2	6 MW
175 Boblainy Forest	AMEC Wind 12km S of Muir of Ord	Rejected or withdrawn	NH 48 38	
041 Borrowston AKA Dounreay	CRE Energy 1km NE of Dounreay	On appeal	ND 0 068 10 x 1.7	17 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
204 Boultach	Fivestones 5km NNE of Dunbeath	Proposal	ND 175 355 1 x 2	2 MW
257 Braemore AKA Dunbeath Estate	Renewable Development Company Ltd 5km W of Dunbeath	Proposal	ND 105 305 26 x 2	s.36 52 MW
038 Broubster	Scottish and Southern Energy 10km SW of Thurso	Scoping	ND 05 59 58 x 2.5	s.36 145 MW
039 Buolfrulich	Enercon 5km N of Dunbeath	Approved, not started	ND 160 355 15 x 0.6	9 MW
252 Burn of Whilk AKA Yarrow	nPower Renewables 11km SW of Wick	Scoping	ND 296 415 10 x 2	20 MW
174 Cairn Duhie	Renewable Energy Systems 5km SE of Ferness	Proposal	NH 980 420 24 x 1.5	36 MW
219 Cambusmore AKA Loch Buidhe	Renewable Energy Systems 15km NW of Dornoch	Live application	NH 665 994 33 x 2	s.36 66 MW
015 Camster	E.ON UK Renewables 15km SW of Wick	Proposal	~ND 26 44 25 x 2	s.36 50 MW
023 Carn Dearg Hill	Private Developer Port Mor, Isle of Muck	Live application	NM 424 795 2 x 2	4 MW
040 Causeymire	nPower Renewables 17km S of Thurso	Operational	ND 155 505 22 x 2.3	s.36 50.6 MW
149 Corriemoillie Forest	CRE Energy 5km N of Levin	Scoping	NH 346 678 20 x 2	40 MW
090 Dalchork Wood	AMEC Wind 6km NE of Lairg	Anemometry	NC 59 12	
220 Dalreavoch AKA Strath Brora (West)	Renewable Development Company 10 Km WNW of Golspie	Scoping	NC 721 111 23 x 2	46 MW
056 Dunmaglass	Private Developer 26km S of Inverness at Foyers	Failed	NH 593 197	
057 Dunmaglass extn	Renewable Energy Systems 26km S of Inverness at Foyers	Proposal	NH 644 190 36 x 3	s.36 108 MW
146 Durran AKA Spittal Hill, Banniskirk	Scottish and Southern Energy 8km SE of Thurso	Live application	ND 18 64 22 x 3	s.36 66 MW
133 Edinbane	AMEC Wind Head of Loch Greshornish, Isle of Skye	Live application	NG 354 467 27 x 1.8	47.25 MW
058 Farr	nPower Renewables 12km SSE of Inverness	Approved, not started	NH 735 290 40 x 2.8	s.36 112 MW
042 Forss AKA Hill of Forss 1	Renewable Energy Systems 5km W of Thurso	Operational	ND 019 695 2 x 1.3	2.6 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
043 Forss extn AKA Hill of Forrs 2, Melvich 1	Renewable Energy Systems 5km W of Thurso	Scoping	ND 021 695 4 x 1	4 MW
020 Glen Bernisdale	AMEC Wind 15km E of Dunvegan, Isle of Skye	Proposal	NG 393 483	
270 Glen Kirk	Eurus Energy 2km E of Tomatin	Scoping	NH 864 315 25 x 2	s.36 50 MW
154 Glen Moriston AKA The Millienium Site, Invergarry, Achlain	Renewable Development Company Glenmoriston, 10km W of Fort Augustus	Live application	NH 29 08 21 x 2.3	48.93 MW
208 Glen Ullinish AKA Ose	Skye Renewable Energy 2km S of Edinbane, Isle of Skye	Proposal	NG 333 387 6 x 2	12 MW
109 Gordonbush AKA Meallan Liath Beag	Scottish and Southern Energy 12km NW of Brora	Live application	NC 865 150 40 x 2.5	s.36 100 MW
268 Hallin AKA Waternish	RLS By Waternish, Isle of Skye	Proposal	NG 260 585 7 x 2	14 MW
147 Hill of Fearn AKA Nigg	Shell Wind Energy 7km SE of Tain	Anemometry	NH 83 76	
182 Hill of Lieurary	Scotrenewables 7km SW of Thurso	Live application	ND 080 620 3 x 3	9 MW
108 Keoldale	AMEC Wind 5km S of Durness	Proposal	NC 38 66 100 x 3	s.36 300 MW
110 Kilbraur AKA Strath Brora, Braegrudie, Scriberscross	Renewable Development Company 10km NW of Brora	Live application	NC 81 08 19 x 1.8	34.2 MW
227 Lairg Estate	Bell Ingram 4km SSE of Lairg	Anemometry	NC 597 028	
082 Lochluichart	Infinenergy By Garve, 28km NW of Dingwall	Scoping	NH 325 685 75 x 3	s.36 225 MW
052 Lorgill	AMEC Wind Nr Glendale, Skye	Proposal	NG 17 42	
224 Marybank AKA Muir of Ord, Fairburn	Scottish and Southern Energy 10km SW of Strathpeffer	Proposal	NH 43 52 25 x 1.8	45 MW
150 Melvich AKA Akron Farm	Scottish and Southern Energy 2km SE of Melvich	Scoping	NC 860 640 6 x 2	12 MW
210 Nigg Hill	Shell Wind Energy Cromarty Firth, 10km E of Nigg	Proposal	NH 81 67 17 x 2.3	39.1 MW
084 Novar AKA Bendeallt	nPower Renewables 12km WNW of AIness	Operational	NH 52 75 34 x 0.5	17 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
085 Novar extn AKA Meall an Turc	nPower Renewables 12km WNW of Alness	Live application	NH 550 710 18 x 3	s.36 54 MW
256 Oust AKA Cairnmore Hillock	5km ESE of Thurso	Proposal	ND 060 675 15 x 2.5	37.5 MW
188 Reay	15km WSW of Thurso	Proposal	NC 952 164 25 x 3	s.36 75 MW
044 Scoolary AKA Hill of Slickly	British Energy Renewables 17km E of Thurso	Scoping	ND 290 690 48 x 1.5	s.36 72 MW
239 Shebster	C W Sutherland 3km SSE of Dounreay	Scoping	ND 017 627 25 x 2	s.36 50 MW
134 Sleat AKA S Skye	AMEC Wind S tip of Isle of Skye	Proposal	NG 607 020	
178 Spean Bridge	Alcan Primary Metals Europe 5km SE of Spean Bridge	Anemometry	NN 270 780	
096 Spittal Hill	Spittal Hill Wind Farm 13 km SSE of Thurso	Proposal	ND 160 560 47 x 3	s.36 141 MW
119 Stirkoke AKA Stemster Hill, Achairn	5km W of Wick approximately 31km SE of Borrowston.	Proposal	ND 309 501 3 x 1.7	4.95 MW
114 Strath Brora (East)	Renewable Development Company 5km WNW of Golspie	Live application	NC 71 14 24 x 2	48 MW
111 Strathy	RenGen Ltd 3km SE of Strathy	Proposal	NC 86 63 35 x 1.5	s.36 52.5 MW
116 Strathy North Forest	Scottish and Southern Energy 10km E of Bettyhill	Scoping	NC 808 573 25 x 2	s.36 50 MW
117 Strathy South Forest	Scottish and Southern Energy 13km SE of Bettyhill	Scoping	NC 782 507 50 x 3	s.36 150 MW
240 Stroupster	nPower Renewables 10km E of Thurso	Scoping	ND 342 664 25 x 2	s.36 50 MW
100 Upper Breakish	Scottish and Southern Energy Nr Broadford, Skye	Proposal	NG 632 249 20 x 2.5	s.36 50 MW
Total for Highland	66 Applications,	1 Rejected	1766 Turbines	3914.9 MW

Inverclyde

080 Gryff Reservoir AKA Corlick Hill, Greenock, Devo Moor	Airtricity 2km S of Greenock	On appeal	~NS 32 74 23 x 2.5	s.36 57.5 MW
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Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
107 Outerwards	Scottish and Southern Energy 3km SE of Upper Skelmorlie	Scoping	NS 231 656 44 x 3	s.36 132 MW
Total for Inverclyde	2 Applications, None rejected		67 Turbines	189.5 MW
Midlothian				
216 Auchencorth Moss	United Utilities 5km SW of Penicuik	Scoping	NT 20 56 30 x 2	s.36 60 MW
Total for Midlothian	1 Application None rejected		30 Turbines	60 MW
Moray				
060 Aultmore	AMEC Wind Keith, 24km ESE of Elgin	Rejected but resubmitted	NJ 46 58 29 x 2.2	s.36 63.8 MW
249 Balnamoon Farm	Orkney Renewables 6km NE of Keith	Proposal	~NJ482 556 1 x 1	1 MW
255 Berry Burn AKA Carn Kitty, Altyre	Catamount Energy 12km SSE of Forres	Live application	NJ 084 440 32 x 2.5	s.36 80 MW
061 Cairn Uish AKA Rothes	Natural Power 12km S of Elgin	Under construction	NJ 17 50 28 x 2	s.36 56 MW
201 Cairn Uish extn	Natural Power 12km of S Elgin	Proposal	NJ 17 50 10 x 2	20 MW
062 Drummuir	Renewable Energy Systems 25km SE of Elgin	On appeal	NJ 36 47 21 x 2	42 MW
063 Findhorn	The Eco-village The Eco-village, Findhorn	Operational	NJ 0364 1 x 0.3	0.3 MW
021 Findhorn extn	The Eco-village The Eco-village, Findhorn	Live application	NJ 0364 3 x 0.6	1.8 MW
064 Paul's Hill AKA Ballindalloch	Natural Power (Olsen Renewables) 7km SW of Knockando	Approved, not started	NJ 11 40 28 x 2	s.36 56 MW
200 Paul's Hill extn	Natural Power (Olsen Renewables) 7km SW of Knockando	Proposal	NJ 11 40 10 x 2	20 MW
Total for Moray	10 Applications, None rejected		163 Turbines	340.9 MW
North Ayrshire				
065 Ardeer	CRE Energy In Saltcoats & Stevenston	Rejected or withdrawn	NS 2740 34 x 0.9	28.9 MW
066 Ardrossan AKA Busbie Muir	Airtricity 20km W of Kilmarnock	Operational	NS 23 42 14 x 2	28 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
161 Hunterston	CRE Energy By Fairlie	On appeal	~NS 21 56 14 x 2.5	35 MW
068 Kaim Hill	Renewable Energy Systems 6km NE of West Kilbride	Rejected or withdrawn	NS 23 53 5 x 1	5 MW
168 Kelburn Estate AKA Fairlie	Renewable Energy Systems 5km NE of Hunterston Visitors Centre	Live application	NS 23 56 19 x 2	38 MW
228 Ladyland Moor AKA Mistylaw Muir	Hunterston Hydrogen 10km NE of Largs	Scoping	NS 301 594 56 x 3	s.36 168 MW
165 Lissens Moss	Between Dalry & Kilwinning	Proposal	NS 34 46	
153 Wardlaw Wood AKA Baidland Hill	Community Wind Power 4km NW of Dalry	Approved, not started	~NS 26 52 6 x 2	12 MW
Total for North Ayrshire	8 Applications, 2 Rejected		109 Turbines	281 MW
North Lanarkshire				
179 Blacktongue Farm	East of Scotland Water 3km S of Cumbernauld	Anemometry	NS 782710 1 x 2	2 MW
184 Bracco AKA Caldercruich	Airtricity Between Caldercruich and Salsburgh, by M8, E of Airdrie	Proposal	NS 826 650 30 x 2.5	s.36 75 MW
247 Ferrieshaw	Airtricity Ltd 1km NE of Wishaw	Proposal	~NS 81 60 11 x 2	22 MW
Total for North Lanarkshire	3 Applications, None rejected		42 Turbines	99 MW
Offshore				
199 Aberdeen Harbour	Aberdeen Renewable Energy Group Aberdeen Harbour to Black Dog	Proposal	NJ 975 084 20 x 2.5	s.36 50 MW
055 Beatrice Field	Talisman Energy/SSE Due E of Helmsdale	Proposal	ND 08 14 400 x 2.5	s.36 1000 MW
098 Robin Rigg AKA RockCliffe Offshore	E.ON UK Renewables Solway Firth, S of Dalbeattie	Approved, not started	NX 95 47 60 x 3	s.36 180 MW
Total for Offshore	3 Applications, None rejected		480 Turbines	1230 MW
Orkney				
120 Bu Farm	Farm Energy Rothiesholm, SW of Stronsay	Operational	HY 61 22 3 x 0.9	2.7 MW
185 Bu Farm extn	Farm Energy Rothiesholm, SW of Stronsay	Live application	HY 61 22 6 x 0.9	5.4 MW

Name	Developer	Status	Grid Ref	Installed Capacity
	Approx Location		Turbines	
142 Burgar Hill	nPower Renewables Gurness, Orkney mainland	Operational	HY 36 28 1 x 2.8	2.75 MW
192 Burgar Hill extn	nPower Renewables Gurness, Orkney mainland	Approved, not started	HY 36 28 2 x 2.5	5 MW
167 Burray	Nr Northfield	Approved, not started	ND 487 985 1 x 1	1 MW
191 Isle of Flodda	Scot Renewables Location unknown	Approved, not started	- 1 x 2	2 MW
122 Orphir	nPower Renewables 11 km SW of Kirkwall.	Proposal	HY 34 06 4 x 1	4 MW
121 Powdykes	Fitty Hill, Westray Island	Proposal	HY 42 44 1 x 0.3	0.32 MW
243 Rothiesholm	I & H Brown Rothiesholm Head, Stronsay	Proposal	HY 620 242 8 x 0.9	7.2 MW
124 Spur Ness	Scottish and Southern Energy Spur Ness, Sanday	Under construction	HY 6033 4 x 2.5	10 MW
123 Thorfin	NEG-Micon UK Elvie, 14km NW of Kirkwall	Operational	HY 34 25 1 x 1.5	1.5 MW
235 Ward Hill	Tech Serv, Orkney Stromness	Live application	~HY 254 101 1 x 1	1 MW
234 West Hill	Scotrenewables Flotta	Live application	~ND 351 939 1 x 1	1 MW
Total for Orkney	13 Applications, None rejected		34 Turbines	43.87 MW

Perth & Kinross

202 Abercairny	Catamount Energy AKA Broadmeadows 2km E of Crieff	Live application	NN 890 270 22 x 3	s.36 66 MW
160 Balado	Glendevon Energy Co Balado Airfield, 2km W of Kinross	Rejected after Public Inquiry	NO 095 024 3 x 2	6 MW
203 Calliacher	I & H Brown AKA Amulree, Meall Odhar 6km S of Aberfeldy	Live application	NN 860 425 46 x 2	s.36 92 MW
152 Drumderg	Scottish and Southern Energy Between Alyth and Bridge of Cally.	Live application	~NO 17 54 16 x 2	32 MW
075 Easter Newborn	7km NW of Blairgowrie	Proposal	~NO 14 51	
267 Green Knowes	nPower Renewables AKA Knowes Farm 4km SSE of Auchterader	Live application	NN 970 070 18 x 2	36 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
077 Griffin Forest AKA Kinnaird Estate	Green Power 10 Km NW of Dunkeld	Live application	NN 936 446 86 x 2.5	s.36 215 MW
173 Knowehead	British Energy Renewables 5km SE of Dunning	Live application	NO 04 11 24 x 2.5	s.36 60 MW
225 Little Law	Green Power 8km SE of Auchterarder	Live application	NN 99 08 14 x 2.5	35 MW
193 Lochelbank AKA Path of Condie	nPower Renewables 2km N of Glenfarg	Live application	NO 120 125 17 x 3	s.36 51 MW
231 Logiealmond AKA Little Glenshee	AMEC Wind 4km NW of Methven	Scoping	NN 986 344 32 x 2	s.36 64 MW
230 Mellock Hill	West Coast Energy 4km NNE of Yetts o Muckart	Live application	NO 025 065 30 x 3	s.36 90 MW
078 Pole Hill	Pole Hill Wind 7km NE of Perth	Proposal	NO 19 26 2 x 0.5	1 MW
074 Snowgoat Glen	nPower Renewables 4km SW of Dunning	Live application	NO 005 105 16 x 1	16 MW
271 Tillyrie Hill	John Lawrie (Tillyrie) 3km SW of Glenfarg	Anemometry	NO 103 080	
079 Trinafour	2km SE of Loch Errochty	Proposal	~NN 72 64	
Total for Perth & Kinross	16 Applications,	1 Rejected	323 Turbines	758 MW

Scottish Borders

031 Black Hill	Renewable Energy Systems 6km NW of Duns	Approved, not started	NT 73 56 22 x 1.3	28.6 MW
071 Bowbeat Hill AKA Emly Bank, Roughside Hill	E.ON UK Renewables 8km NNE of Peebles	Operational	NT 29 46 24 x 1.3	31.2 MW
094 Broadmeadows AKA Broomy Law	Green Power 5km NW of Selkirk.	Proposal	NT 384 327 25 x 1.5	37.5 MW
037 Carcant	Renewable Development Company 12km W of Oxton	Scoping	NT 52 37	
073 Corbie Shank	Renewable Development Corporation 12km N of Langholm	Scoping	NY 357 984 30 x 2	s.36 60 MW
104 Craik Forest	AMEC Wind 20km SW of Hawick	Anemometry	NT 30 10	
013 Crystal Rig	Olsen Renewables 15km S of Dunbar	Operational	NT 660 680 26 x 2	s.36 52 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
032 Crystal Rig extn	Olsen Renewables 15km S of Dunbar	Under construction	NT 660 680 56 x 3	s.36 168 MW
033 Dun Law	CRE Energy 7km NW of Lauder	Operational	NT 48 57 26 x 0.7	17.16 MW
164 Dun Law extn	CRE Energy 7km NW of Lauder	Anemometry	NT 470 575	
222 Fallago Ridge	North British Wind Power 10km SSE of Haddington	Scoping	NT 580 599 57 x 2	s.36 114 MW
035 Lamberton Moor	Renewables Development Co 1km N of Berwick	Proposal	NT 96 57 22 x 1	22 MW
212 Long Park AKA Hawkburn	Wind Prospect 2km NNW of Galasheils	Live application	NT 473 404 18 x 2.5	45 MW
223 Longpark	Wind Prospect 5km NNW of Galasheils	Live application	NT 481 417 15 x 3	45 MW
113 Minch Moor AKA Walkerburn	AMEC Wind 2km S of Walkerburn	Live application	NT 38 36 17 x 2	34 MW
036 Monashee Farm	B Baker - West Coast Windfarms 7km N of Duns	Rejected or withdrawn	NT 80 61 11 x 2	22 MW
163 Sell Moor AKA Lauder Common	Renewable Development Company 11km N of Galasheils	Live application	NT 48 44 17 x 2.5	42.5 MW
054 Toddleburn	Toddleburn WF Co 6km NNW of Lauder	Live application	NT 45 63 12 x 2	24 MW
Total for Scottish Borders	18 Applications, 1 Rejected		367 Turbines	720.96 MW
Shetland				
125 Burra Dale	Shetland Aerogenerators 5km SW of Lerwick	Operational	HU 42 42 3 x 0.7	2.1 MW
106 Burra Dale extn	Shetland Aerogenerators 5km SW of Lerwick	Operational	2 x 0.9	1.7 MW
196 Busta Estate	Viking Energy Nestling	Proposal	150 x 2	s.36 300 MW
143 Fair Isle	Fair Isle Electricity Co Fair Isle	Operational	1 x 0.7	0.66 MW
126 Hamari Field	Atlantic Energy 10km S of Lerwick, Shetland	Proposal	HU 41 26 2 x 0.5	1 MW
233 Muckla Moor	Scottish and Southern Energy 4km NW of Herra	Scoping	HU 437 675 83 x 3	s.36 249 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
127 Suseter Hill	James Howden North Roe	Operational	HU 36 86 1 x 1	1 MW
128 Tresta	Atlantic Energy 12km NW of Lerwick	Proposal	HU 35 52	
190 Yell	Scottish and Southern Energy 2km SW of Mid Yell	Proposal	HU 48 89 200 x 1.3	s.36 250 MW
Total for Shetland	9 Applications, None rejected		442 Turbines	805.46 MW

South Ayrshire

139 Hadyard Hill	Scottish and Southern Energy 9km E of Girvan	Under construction	NX 260 970 52 x 2.5	s.36 130 MW
AKA Barbae, Benan Hill				
244 Mark's Hill	Force 9 Energy / Entec 1km E of Pinwherry	Proposal	NX 250 860	
AKA Barrhill				
Total for South Ayrshire	2 Applications, None rejected		52 Turbines	130 MW

South Lanarkshire

069 Black Law	CRE Energy 4km NE of Carluke	Under construction	NS 94 53 67 x 2.1	s.36 140.7 MW
221 Calla Farm	Hainsford Energy 1km NW of Carnwath	Anemometry	~NS 99 50	
214 Camps Reservoir	E.ON UK Renewables 2km NE of Crawford	Anemometry	NS 98 22	
183 Clyde Valley Windfarm	Airtricity Between Elvanfoot and Crawford	Live application	NT 015 175 170 x 3	s.36 510 MW
AKA Crawford				
215 Daer Reservoir	E.ON UK Renewables 8km S of Elvanfoot	Anemometry	NS 964 081	
213 Dunduff Quarry	Abenergy 2km SW of Kirkmuirhill	Anemometry	NS 777 412	
248 Dungavel Hill	E.ON UK Renewables 10km SW of Strathaven	Scoping	NS 675 371 18 x 2.8	49.5 MW
092 East Kilbride	Merchant Wind Park Langlands Industrial Estate, East Kilbride	Operational	NS 65 51 1 x 0.6	0.6 MW
170 Gair Farm	CRE Energy 3km NE of Carluke	Anemometry	NS 86 53	
189 Glengavel	I & H Brown 3km S of Drumclog	Proposal	NS 647 331 10 x 2.5	25 MW

	Name	Developer	Status	Grid Ref	Installed Capacity
		Approx Location		Turbines	
138	Glespin	Herr von Pezold 1km S of Hagshaw Hill	Rejected after Public Inquiry	NS 78 29 14 x 2	28 MW
151	Greenaton Farm	Orkney Renewables 2km NE of Carnwath	Anemometry	NS 98 48	
093	Hagshaw Hill	CRE Energy 4km W of Douglas	Operational	NS 79 30 26 x 0.6	15.6 MW
186	Harburn Estate	Scottish and Southern Energy 5km SE of Bathgate	Anemometry	NT 04 61	
091	Harrow's Law	Scottish and Southern Energy 14km N of Biggar	Scoping	NT 04 53 75 x 2	s.36 150 MW
171	Headsmuir Farm	Community Wind Power 1km S of Carluke	Anemometry	NS 87 50	
144	Spireslack	Scottish Coal 5km NE of Muirkirk	Scoping	NS 73 29 30 x 2	s.36 60 MW
053	Stallashaw Moss	Muirhall WindFarm 2km N or Carnwath	Anemometry	6 x 3	18 MW
048	Whitelee Forest	CRE Energy Eaglesham Moor, 16km S of Glasgow	Live application	NS 574 457 140 x 2.5	s.36 350 MW
Total for South Lanarkshire		19 Applications,	1 Rejected	543 Turbines	1319.4 MW

Stirling

262	Ardeonaig	Abernethy Trust 10km NE of St Fillans	Approved, not started	NN 663 346 2 x 0.6	1.2 MW
260	Ballindalloch Muir	nPower Renewables 16km NNE of Milngavie	Proposal	NS 578 901 10 x 2	20 MW
070	Braes of Doune	Airtricity 5km NW of Doune	Approved, not started	NN 69 05 49 x 2	s.36 98 MW
253	Buchlyvie Muir	West Coast Energy 16km NNE of Milngavie	Proposal	NS 576 907	
258	Cairnoch Hill	British Energy Renewables 12km SW of Stirling	Proposal	NS 695 855	
018	Cowiehall	AB Energy 1km ESE of Bannockburn	Proposal	NS 848 892 10 x 2	20 MW
137	Duntreath	North British Windpower 7km NNE of Milngavie	Proposal	NS 565 810 28 x 2	s.36 56 MW
072	Glenogle Farm	L. Ionides 1km N of Lochearnhead	Rejected or withdrawn	NN 583 247 25 x 2	s.36 50 MW

Name	Developer Approx Location	Status	Grid Ref Turbines	Installed Capacity
232 Hart Hill (East) AKA Earsburn	West Coast Energy 10km WSW of Stirling	Rejected or withdrawn	NS 697 884 14 x 3	42 MW
226 Kippen Muir	Wind Prospect 3km SW of Kippen	Proposal	NS 619 922	
155 Limmer Hill	West Coast Energy	Proposal	60 x 2	s.36 120 MW
242 Slymaback	Wind Prospect 15km NNE of Dunblane	Proposal	NN 745 100 11 x 2	22 MW
237 Touch Reservoirs	R.J. McLeod 5km SW of Stirling	Proposal	NS 724 913 5 x 2	10 MW
Total for Stirling	13 Applications, 2 Rejected		175 Turbines	347.2 MW

West Dunbartonshire

047 Kilpatrick Hills AKA Fynloch Hill	Airtricity Between Loch Humphrey & Duncolm	Live application	NS 46 77 24 x 2.5	s.36 60 MW
Total for West Dunbartonshire	1 Application None rejected		24 Turbines	60 MW

Western Isles

129 Arnish Moor Wind Cluster	Farm Energy 4km S of Stornoway, Isle of Lewis	Approved, not started	~NB 42 32 3 x 1	3 MW
172 Eisgen Estate AKA Muaitheabhail	Beinn Mhor Power S end of Isle of Lewis, W of Loch Shiphoint	Live application	NB 18 08 133 x 3	s.36 399 MW
130 Lewis Wind AKA Barvas Moor	Lewis Windpower Entire NW of Isle of Lewis	Live application	~NB 36 49 234 x 3	s.36 702 MW
166 Linsiadar	Virtual Utility By Linsiadar, Isle of Lewis	Proposal	NB 215 315	
145 Lionacleit	Element Engineering Isle of Benbecula	Operational	NF 79 49 1 x 0.6	0.6 MW
140 Pairc Estate	Scottish and Southern Energy S end of Isle of Lewis, E of Loch Shiphoint	Anemometry	125 x 2	s.36 250 MW
131 Pentland Road AKA Beinn Mholach	Farm Energy 9km NW of Stornoway, Isle of Lewis	Approved, not started	NB 35 38 6 x 2	12 MW
194 South Uist Estate	Uist Renewable Energies Askernish, South Uist	Anemometry	~NF 92 73	
Total for Western Isles	8 Applications, None rejected		502 Turbines	1366.6 MW