

KILGALLIOCH WINDFARM

A proposed development



January 2012



SCOTTISHPOWER
RENEWABLES

Introducing ScottishPower Renewables

ScottishPower Renewables is a leading developer of renewable energy, particularly onshore wind. We have over 20 years of experience in this industry and have a wealth of knowledge that we utilise to develop, construct and operate windfarm projects throughout the UK. With 13 operational windfarms in Scotland, we feel our extensive experience enables us to develop sustainable energy projects responsibly in this region.

In 2011, ScottishPower Renewables became the first UK developer to reach an installed generating capacity of 1,000 mega watts (MW) from onshore wind. We have also developed and operate Whitelee Windfarm in west-central Scotland, Europe's largest onshore windfarm, with a unique on-site Visitor Centre that has welcomed over 180,000 people through its doors since it opened in September 2009. The site access tracks are also widely used by members of the public for cycling, rambling, dog walking and horse riding and this is a great example of how windfarms can add real value to their local area.

We pride ourselves on developing renewable energy projects responsibly and to this end every one of our projects follows a thorough development process, taking into account detailed environmental information and the aspirations of stakeholders. We actively encourage those surrounding our proposed projects to become involved at all stages of the development so we can utilise feedback to shape and refine our plans.

We are recognised as industry leaders and this year were proud to receive our second Queen's Award for Sustainable Development. We are committed to the communities in which we operate and in 2011 delivered more than £1 million to community benefit funds throughout the UK.

In addition to our onshore windfarms we are developing over 2,000 MW of offshore energy projects in the UK, have been granted permission to construct a 10 MW world-first tidal demonstration array in the Sound of Islay and are investigating a further 150 MW of marine potential in the Pentland Firth, confirming our position at the forefront of the renewables industry.



Whitelee Windfarm, turbine height 110 metres



Beinn Tharsuinn Windfarm, turbine height 81 metres



Beinn Tharsuinn Windfarm, turbine height 81 metres

Cover Photo: Black Law Windfarm, turbine height 110 metres

Introducing Kilgallioch Windfarm



Photomontage showing a section of Kilgallioch Windfarm from Viewpoint 1 - Craig Airie Fell, looking northeast.

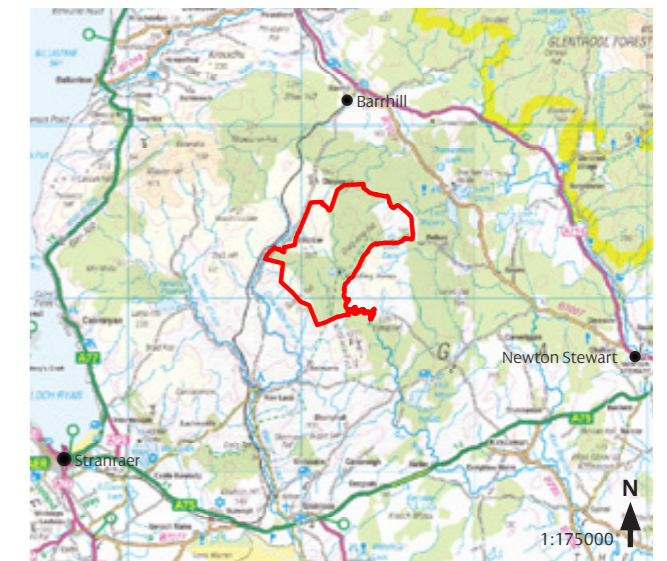
ScottishPower Renewables is proposing to develop a windfarm in and around the area of Kilgallioch and Purgatory Forests, south of Barrhill in southwest Scotland. The site is located largely within an Area of Search for large scale windfarm development, as specified in Dumfries and Galloway Council Planning Guidance¹, and is also shown in the emerging South Ayrshire Council Main Issues Report² as being within a Preferred Area of Search for Large Scale Windfarms.

We began consulting with members of the public and other stakeholders about this project in December 2008, and our planning application was submitted to the Scottish Government in March 2010 under Section 36 of the Electricity Act 1989. As the site lies within both Dumfries and Galloway and South Ayrshire, both Councils are key consultees to the Scottish Government who will ultimately determine the application. Since submitting our application in March 2010 we have received additional feedback on the project and have taken account of this to further refine our proposals.

The proposals presented here have been developed through a rigorous design process, incorporating feedback from the public and stakeholders at all stages. They represent an optimal design for the windfarm, balancing the site's potential to deliver renewable energy benefits with environmental, technical and community considerations.

The changes to the proposal are being presented to the Scottish Government, Dumfries and Galloway Council and South Ayrshire Council in a document known as an 'Addendum', which supplements the Environmental Statement submitted in support of the original application. Details of how to view or obtain a copy of the Addendum and original Environmental Statement are available at the back of this document.

Development Area



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Key Facts

How many turbines?

99

How tall would the turbines be?

The maximum height would be 146.5 metres (from the base of the turbine to the blade tip at its highest point). However, two of the turbines in the southwest of the site would have a reduced maximum height of 125 metres.

What would be the maximum generating capacity of each turbine?

Up to 3 MW

What would be the maximum generating capacity of the windfarm?

Up to 297 MW

How much electricity would a 297 MW windfarm generate?

Enough to supply the equivalent of over 160,000 homes*

How long would it take to construct the windfarm?

For a windfarm of this size we anticipate construction activities to be complete in about three years.

Would construction traffic be managed?

Yes. Before construction begins we would prepare a Traffic Management Plan in agreement with both Dumfries and Galloway and South Ayrshire Councils, detailing how traffic to site and deliveries would be managed.

Would this development create any jobs?

During the construction of the 60 turbine Arecleoch Windfarm, there were around 220 workers on site at the peak of construction and around 1,500 in total inducted to work on the site for anything from a few days up to the full construction period. Given its larger size we anticipate a higher number of workers will be required for the construction of Kilgallioch Windfarm.

During operation of the windfarm there are likely to be job opportunities in a range of tasks including; turbine service and maintenance, waste management, grounds and roads maintenance, and the servicing and maintenance of operational buildings. For example, at the nearby Arecleoch and Mark Hill Windfarms, a number of the turbine technicians and an apprentice in the service and maintenance team are from the local area.

Contracts such as grounds maintenance, waste management and servicing of operational buildings are often best managed by local companies because they can get to the site regularly and at short notice.

* Calculation based on site specific wind speed data and an average annual domestic usage of 4,700kWh

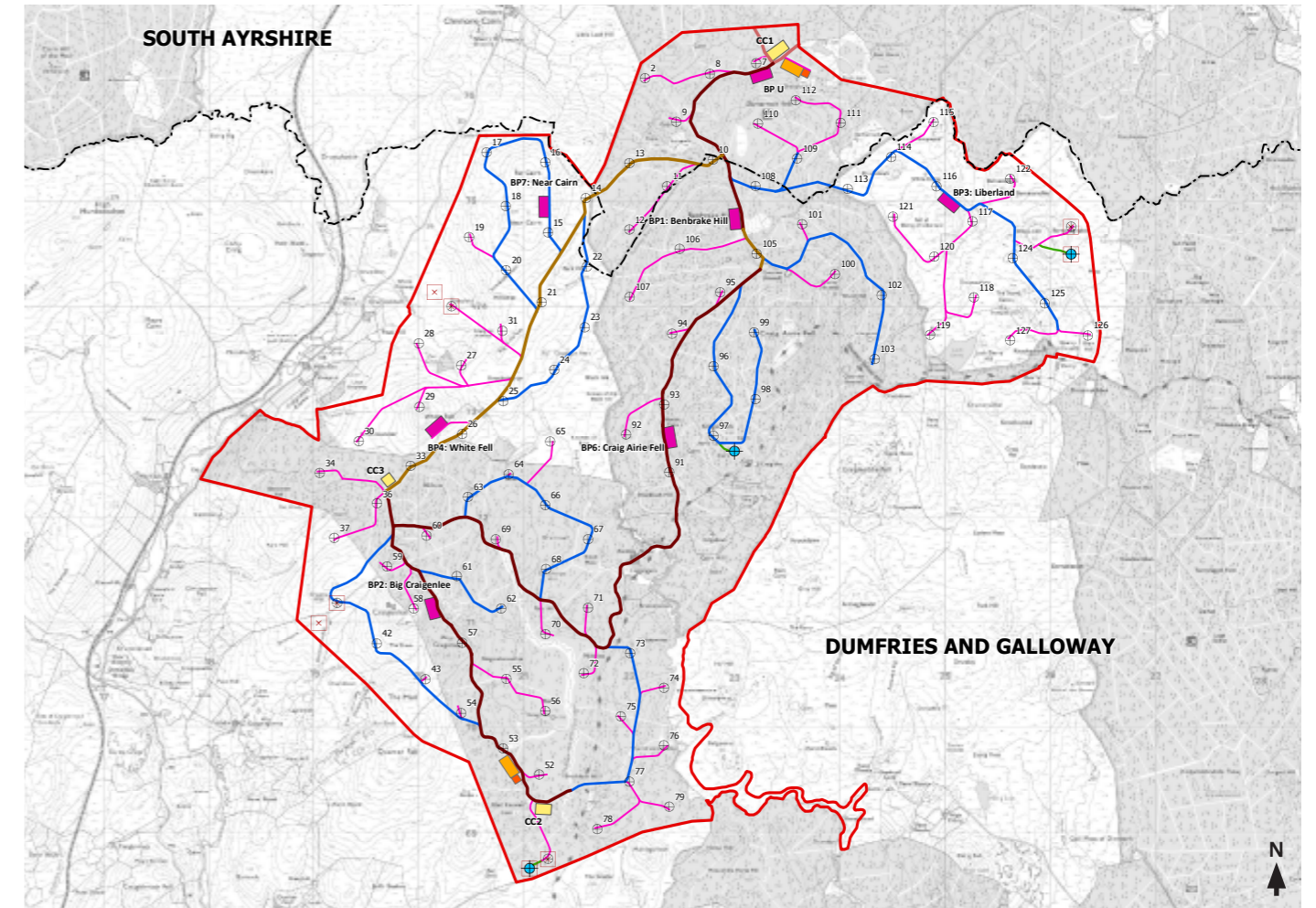


Photo for illustrative purposes only. Image shows a turbine at Whitelee Windfarm with dimensions: 110 metre tip height, 93 metre rotor diameter and 63.5 metre tower height.



Arecleoch construction

Kilgallioch Windfarm Site Layout



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Key		Track Layout	
	Proposed Turbine Location		Spine Road to be Upgraded
	Development Area		Existing Spine Road (General Access Road)
	Meteorological Mast		New Spine Road
	Power Performance Assessment Mast		Primary Track
	Local Authority Boundary		Minor Track
			Meteorological Mast Track
			Substation / Control Compound
			Substation Temporary Laydown Area
			Construction Compound
			Borrow Pit

Where is the windfarm site located?

It is south of Barrhill and northeast of Glenluce, within the administrative areas of South Ayrshire and Dumfries and Galloway.

What size is the site?

The Development site covers an area approximately 8 km by 8 km. However, the area of land used by the turbines, tracks, control building and substation compounds is only around 68 hectares.

Would I be able to access the windfarm?

Yes. Following construction of the windfarm an additional 55 km of new tracks, suitable for members of the public to access for recreation, would be available.

How long would the windfarm be operational for?

The windfarm would be operational for 25 years.

What is the site currently used for?

The site is predominantly a combination of grazed moorland and commercial forestry.

How would the windfarm be connected to the national electricity grid?

We anticipate that Kilgallioch is likely to be connected into the grid using the existing substation at Mark Hill and we have requested to the region's Transmission Owner, that an underground connection be used.

Why support the development of Kilgallioch Windfarm?

This development fits with local planning policy:

Kilgallioch Windfarm is largely located within identified areas of search for large scale wind energy development as specified by The Dumfries and Galloway Interim Planning Policy (IPP): Wind Energy Development¹ (Consultative Draft, June 2011) and the South Ayrshire Council Local Development Plan, Main Issues Report (2010).²

Employment opportunities:

During the construction of the 60 turbine Arecleoch Windfarm, there were around 220 workers on site at the peak of construction and around 1,500 in total inducted to work on the site, with these people working on site for anything from a few days up to the full construction period. Workers on the site were involved in a whole range of activities including; ground works, forestry, road and drainage construction, quarrying, driving, site supervision and management, health and safety management, administration, electrical work, turbine installation, environmental surveys and monitoring and catering. Given its larger size we anticipate a higher number of workers will be required for the construction of Kilgallioch Windfarm.

During the operational phase of our windfarms there are job opportunities in a range of tasks including turbine service and maintenance, waste management, grounds and roads maintenance and servicing and maintenance of operational buildings.

We have been working with Skills Development Scotland and local education providers to identify the future skills requirements of the renewable energy industry. It is our hope that this knowledge can then be used to design suitable training courses/materials to ensure that the identified skills are available and that this training could provide recognised qualifications to local people to maximise potential employment opportunities in the renewable energy industry in the region.

Local businesses would benefit: We are working in partnership with the Dumfries and Galloway Chamber of Commerce, local education providers, and Skills Development Scotland to determine what skills local businesses need to get ready for the development of renewable energy projects in this region so they feel capable and equipped to tender for potential opportunities.

The majority of businesses in this area are typically small to medium sized enterprises and this is the sector we are focussing on. If this project is consented, SPR will hold a series of 'Meet the Developer' sessions to brief local businesses on the types of contracts being let during the construction period, in order to assist local businesses to take advantage of the opportunities arising and to bid for appropriate contracts.

A 'Meet the Developer' session was held recently in Moffat for our Harestanes Windfarm Project and was well attended by a variety of local businesses. Examples of direct opportunities for local businesses during construction could include haulage, turbine base/access track construction, forestry work, supply of materials, plant hire and catering in addition to the increase in business for local accommodation providers and local retail businesses.

The windfarm would be available for everyone to access:

In Scotland we benefit from the right to roam^{**} and following construction, this development would create 55km of new tracks suitable for the public to access responsibly for a wide variety of uses. Our experience of developing windfarms proves the value of these trails in opening up land that was previously less accessible.

Potential disruption would be minimised as existing infrastructure can be used:

This development would be able to minimise any potential disruption to the local road network by using the existing and tested delivery route to Arecleoch Windfarm.

^{**} Land Reform (Scotland) Act (2003)

This project would include improvements to the Southern Upland Way: We have carefully considered the Southern Upland Way in the development of this project and it has played an integral part in the design of the windfarm. The turbines would create a new point of interest for users of this route, whilst careful design aims to ensure that the existing key features remain on the route (woodland, Laggangairn Stones, Craig Airie Fell view point) and that the current open views across the Kirkcowan Flow and towards the Galloway Hills are preserved.

We would also create bespoke information boards placed along the route through the windfarm site to welcome visitors and provide information about the rich archaeological heritage of the area.

Although some consultees agree with our preferred approach to keep the existing route of the Southern Upland Way path as it passes through the windfarm site, other consultees have suggested it should be rerouted to the east to bring it closer to the edge of the trees. If the windfarm is consented, we would be happy to facilitate consultation with relevant consultees, landowners, users and other interested parties, to enable the merits of this option to be considered further.

Long term support for community initiatives and projects would be provided:

If this windfarm is consented we are proposing to provide financial support to local communities to fund initiatives and projects for the lifespan of the windfarm (typically 25 years). Our decision to provide this support is not part of our planning application and will not be considered material by those who are responsible for determining it.

If consented we will hold discussions among Dumfries and Galloway and South Ayrshire Councils, Community Councils and local interest groups to gather opinions on the preferred vehicle for administering these funds that is independent of ScottishPower Renewables, that reflects the aspirations of the local community and reflects any council policy on community benefit.

We believe that worthy initiatives should be identified at community level and to ensure our community benefit payments fund the most appropriate causes, we prefer to leave the decisions up to local communities who have the best knowledge of the area. As our funding is from a non-government source it can be used to secure matched funding from larger grant schemes such as Leader Plus and the National Lottery. Successful bids can often see original funding multiplied, greatly enhancing its value.

So far our community benefit funds across the UK have supported some fantastic projects including:

- Funding towards installation of biomass heating at Barrhill Memorial Hall;
- Improved energy efficiency measures on community buildings such as new double glazing, cavity wall insulation, solar panel installation and re-roofing;
- The installation of new pedestrian crossings with traffic lights to help children safely cross busy roads on their way to school;
- Funding for new play parks at schools local to our windfarms; and
- Funding for a new set of instruments for a community brass band.

This project contributes to Government targets:

The Scottish Government has set the ambitious target of having the equivalent of 100% of demand for electricity generated by renewable sources by 2020. The UK Government has also set a target of 15% of UK energy needs (including electricity, heat and transport) to be met from renewable sources by 2020.

If consented, Kilgallioch Windfarm would generate enough electricity to supply the equivalent of over 160,000 homes^{***} contributing significantly to Scottish and UK targets.

This development would diversify and add security to energy supplies:

Onshore wind is a well established form of renewable energy generation that can aid the diversification and add security to the supply of electricity, which is currently heavily reliant on finite fossil fuels such as coal and gas, the majority of which are imported.

^{***} Calculation based on site specific wind speed data and an average annual domestic usage of 4,700kWh



Working with education providers to identify training opportunities



Family cycling day at Whitelee Windfarm

Responsible Windfarm Design

Since submitting our original application in March 2010, we have refined our proposals to take into account, where possible, feedback received as a result of ongoing consultation with members of the public and other stakeholders.

We have made some changes to our proposals to ensure they truly offer a best fit for the area, maximising the generation of renewable energy whilst protecting the environment and the aspirations of local communities. In doing so we have removed 33 turbines from our original proposal and have reduced the maximum tip height of two turbines in the southwest of the site from 146.5 metres to 125 metres. **The changes have been made for the following reasons:**

Improved turbine and infrastructure siting: In response to consultee comments and updated information now being available on the depth of peat at the proposed site we have been able to refine our plans by siting turbines to avoid placing them in deeper peat.

Increased distance between turbines and archaeological features: We received feedback about the potential effects of the windfarm on the setting of archaeological features in the area and have moved and removed a number of the turbines in response to these comments increasing the distance between the turbines and these features.

Enhancements to the local Environment: We have worked in close partnership with Forestry Commission Scotland and private woodland owners to refine and tailor the forest design plan for Kilgallioch and the privately owned forestry to the south west. Improvements we have made now ensure that if the windfarm is consented:

- Large areas of commercial forestry will be replaced with native broadleaf trees, improving the biodiversity of these areas, while varied felling dates will result in more varied tree age and height; and
- In areas within the forest that are too wet to be replanted, deep drainage ditches can be managed and natural drainage can be reintroduced, helping to restore the peat on site so that it can once again act as a vital carbon store.

Improvements to Visual Amenity: We received feedback about the potential effects of the windfarm on the experience of walkers along the Southern Upland Way, the views over the Kirkcowan Flow area towards the Galloway Hills and the appearance of the windfarm relative to existing windfarms in the area. As a result, we made some changes to the proposal; deleting some turbines and access tracks and refining the forest plans.

Through these changes further benefits are also realised as, crossings of windfarm tracks by the Southern Upland Way have been reduced from five to two, there has been a 25% reduction in the total length of access tracks and number of watercourse crossings and we have been able to remove one stone borrow pit that is no longer required.

Creation of Water Management Procedures: The River Bladnoch is designated as a Special Area of Conservation (SAC) under the European Commission Habitats Directive. We understand the importance of this and have worked in partnership with Scottish Natural Heritage (SNH) and Scottish Environment Protection Agency (SEPA) to agree water management practices that ensure the construction of the proposed windfarm would not impact upon the hydrology of the area. These practices are presented in a Water Management Plan, that is supplemented by a Construction Environment Management Plan (CEMP) and both documents accompany our application Addendum.

We will also undertake regular monitoring of the hydrology on site in line with advice from SNH, SEPA, Marine Scotland – Freshwater Laboratory (MS-FL) and the Local Fisheries Trusts.



Linns Grave



Regeneration of Peat Habitat, Whitelee Windfarm



Laggair Stones

How have we consulted?



Beinn Tharsuinn Windfarm, turbine height 81 meters

Public Information Days:

We have held two rounds of public information days in June 2009 and April 2010.

These informal drop-in sessions were for anyone interested in finding out more about the development and took place in Barrhill, New Luce and Kirkcowan.

We advertised these events through letters to individuals, a leaflet drop to around 550 households in the region, adverts placed in the local press and, for the 2010 information days, we also listed the details on our project consultation website, which we launched in November 2009.

At our public information days we also provided feedback forms to capture comments on our proposals and these, along with conversations with local people, influenced some of our design decisions.

We will hold further Public Information Days in early 2012 to present the changes to the proposal that are described in this document.

Responsible and sustainable development is at the heart of our approach and as such we consult with communities and stakeholders at the very early stages of development. This ensures full and transparent involvement through to the submission of a planning application, allowing us to utilise feedback at all stages to refine our proposals.

After three years of detailed development we are presenting a windfarm design that maximises the benefits of renewable energy generation balanced with environmental, technical and community considerations.

Working collaboratively with stakeholders: From the early stages of development we have worked in close partnership with a wide range of stakeholders to utilise their knowledge, experience and expertise to shape our proposals. This includes SNH, The Royal Society for the Protection of Birds (RSPB), Forestry Commission Scotland, Dumfries and Galloway Council and South Ayrshire Council and Local Fisheries Trusts.

Engaging with business enterprises and community councils:

We have met with community councils and business enterprises to discuss our proposed development and gather feedback, including: New Luce, Barrhill & Kirkcowan Community Councils, the Dumfries and Galloway Chamber of Commerce, Ayr College, Dumfries and Galloway College, Stranraer College, the Dumfries and Galloway Council's Renewables Forum, Carrick Community Council Forum, the Southern Upland Partnership and The Tourism Doctor.

Project Consultation Website (www.kilgalliochwindfarm.com):

Our project website has detailed information on the proposal, features an interactive map of what the development would look like from nine viewpoints and contains a feedback questionnaire and a frequently asked questions section. On this consultation website members of the public can also register to be sent updates on the project's development and they can submit questions and comments directly to the project team.

Project Specific Email (kilgallioch@scottishpower.com): We also have a specific project email address where questions and feedback can be sent directly to the project team.



SPR Community Consultation Event, Glenbarr, Argyll & Bute

Powering Communities

We are committed to Dumfries and Galloway, South Ayrshire and their communities and we strive to be good neighbours in all aspects of our work. Throughout the past three years we have been bringing real benefit to the region through our support of community events and we will continue to support Dumfries and Galloway and South Ayrshire to ensure the local people of both regions have the opportunity to be part of Scotland's renewable energy success story. Here are just a few examples of initiatives we have been proud to support.



ParkFest 2011



The British Pipe Band Championships



Celebrating Tour Doon Hame Success

The British Pipe Band Championships: In June 2011 we were delighted to be headline sponsors for this spectacular showcase of piping talent, with over 120 bands competing in Annan on the day. We supported Dumfries and Galloway Council to deliver this initiative as part of their event-led tourism strategy to promote and grow economic benefit for the region, and with over £200,000 of economic benefit generated for the area, this event was a real success.

Wigtown Book Festival 2011: This exciting annual ten day festival held in Scotland's national book town offers fantastic literary exposure to adults and children of all ages and in 2011 we were proud to continue our support to the charity that brings it all together. As Senior Sponsors we funded various elements of the programme including a full day of events commemorating Dumfries and Galloway's distinctive history and spirit experienced through readings, music, guided walks and live demonstrations.

Tour DoonHame 2011: As the main sponsor of Tour DoonHame 2011 we were pleased to see this major cycling event team up with community groups to transform this competitive race into a fantastic day out, drawing crowds from near and far.

Galloway Fisheries Trust: At the beginning of 2011 we committed our support to the Galloway Fisheries Trust to undertake a four year project to eradicate knotweed from the banks of the Luce, Bladnoch, Fleet, Deer and Urr. The invasive non-native riparian plant control project will help improve the river environment for fish populations and will have ongoing environmental benefits.

Prestwick Promenade and Sportember: In 2010 we provided £10,000 of funding to South Ayrshire Council which went towards the Prestwick Prom Centenary Celebrations and Sportember. With tens of thousands of visitors attending the promenade celebrations we were glad to support this fantastic family day out, and we are always pleased to give a helping hand to grass-roots sporting activities, just like the ones Sportember arrange.

Z1 Youth Cafe: We provided funding to The Girvan Youth Trust for renovations to the youth cafe they run as part of their work to address the unique social and welfare needs of young people residing within their local rural community. The cafe provides a fantastic recreational resource helping to keep young people off the streets and entertained and also supports their development through initiatives like offering work experience. We are proud to support such a fantastic facility.

Supporting Local Business Networks: As part of our commitment to support and play an active role in the local business network we are a sponsoring business partner with the Dumfries and Galloway Chamber of Commerce and were pleased to be involved with the Ayrshire Business Awards in 2011 through sponsorship of the Outstanding Performing Business category. This enabled us to see firsthand the impressive level of planning, operation and management that exists in Ayrshire businesses, especially in this tough economic climate, and we were pleased to announce the MacKenzie Hall Group as winners.

ParkFest 2011: The Royal National Lifeboat Institution (RNLI) provide vital life-saving services throughout the country and to aid fundraising the RNLI in Stranraer launched their very own one day music festival, organised completely by volunteers. We thought this was a fantastic initiative that really showcased the strengths of this community and we were delighted to offer sponsorship.

Newton Stewart and District Hatchery and Habitat Project: In 2011 we provided funding to support a community self-help project to reverse the depleted numbers of Atlantic Salmon in the River Cree and its tributaries, organised by the Newton Stewart Angling Association. Improvements in the quality of fishing of the river will hopefully increase visiting anglers and this will positively impact the income of the local economy. Local schools will be encouraged to take part in this project enabling wider educational benefits to be gained.

In 2011 we were also proud to support:

- The Glen Luce Tractor Rally;
- The Kirkcolm Gala;
- Langholm Common Riding;
- The Thornhill Blues Festival;
- The Straiton Show; and
- The Ayr, Renfrew and Bute Black Sheep Show.



Local Artist Project at Black Law Windfarm



Tour Doon Hame Launch 2011



Launch of The British Pipe Band Championships



Children exploring Whitelee Windfarm

References

1. Dumfries and Galloway Council (2011). Interim Planning Policy: Wind Energy Development. Available at: <http://www.dumgal.gov.uk/CHttpHandler.ashx?id=7343&p=0> [accessed on 08/09/2011]
2. South Ayrshire Council (2010). Local Development Plan, Main Issues Report. Available at: <http://www.south-ayrshire.gov.uk/planning/MainIssuesReport-doc.aspx> [accessed on 08/09/2011]

Kilgallioch Windfarm

This document provides an overview of the project and introduces the Addendum being submitted for Kilgallioch Windfarm, to the Scottish Government by ScottishPower Renewables in January 2012.

Interested in viewing the application?

The Addendum and the original Environmental Statement can be viewed in full at the following locations during normal office hours:

- The Scottish Government Library at Saughton House, Broomhouse Drive, Edinburgh, EH11 3XD;
- South Ayrshire Council Planning Service, Burns House, Burns Statue Square, Ayr, KA7 1UT;
- Dumfries and Galloway Council, Area Planning Office, Ashwood House, Sun Street, Stranraer, DG9 7JJ;
- Girvan Library, Montgomerie St., Girvan, KA26 9HE;
- Newton Stewart Library, Church St, Newton Stewart, DG8 6ER;
- Barrhill Hall and Community Centre, Main St., Barrhill, KA26 0PP;
- New Luce Post Office & Store, 1 Station Road, New Luce, Newton Stewart, Dumfries and Galloway, DG8 0AL;
- Kirkcowan Post Office, General Store, 34 Main Street, Kirkcowan, Newton Stewart, Wigtownshire, DG8 0HG;
- Glenluce Key Store, 31 Main St., Glenluce, Newton Stewart, Dumfries and Galloway, DG8 0PW.

ScottishPower Renewables can provide a hard copy of the Addendum document for £180 or, alternatively, all the ES and Addendum documents can be provided (as PDF files for screen viewing only) on CD/DVD for £5.00. Copies of the Non-Technical Summaries of the Addendum and ES and additional copies of this project summary document are available free of charge.

Looking for further information?

We are keen to hear your views on this development and welcome you to submit comments to us using the details below.

If you would like further or more detailed information about any aspect of this development please contact us.

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Any comments?

You can submit official comments for consideration by the Scottish Government, who are responsible for determining this application, in writing to:

Energy Consents and Deployment Unit
Scottish Government
4th Floor
5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU

Or via email to: representations@scotland.gsi.gov.uk

The consultation period for this application Addendum will be advertised on www.kilgalliochwindfarm.com



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