

Ardrishaig Community Trust and its share in the Allt Dearg Wind Farmers partnership

Allt Dearg Wind Farmers LLP (ADWF) was established in 2009 by the Broadfoot family of Stronachullin and the Lithgow family of Ormsary to develop the wind resource of their adjacent Estates, which lie to the south of Ardrishaig. Remote and sparsely populated rural Argyll is not, historically, well endowed with economic opportunities. The harnessing of the plentiful wind resources by Allt Dearg Community Wind Farm for the socio-economic benefit of local people was a rare opportunity to generate sustainable home-grown wealth that will help to underpin vibrant and sustainable communities.

The Ardrishaig Community Trust (the Trust) set out to be involved at the outset, and following an informal "Letter of Intent" in 2010, became a partner in Allt Dearg in December 2011 during the financial close of the funding deal, and now owns a one twelfth share in the Allt Dearg Community Wind Farm (Wind Farm), via a trading subsidiary called Ardrishaig Renewable Energies Ltd (ARE Ltd). A share of the cash surplus generated by the Wind Farm over the next 20 years will be received by ARE Ltd and distributed as a charitable donation to the Trust, which will use these funds to help facilitate the development and regeneration of Ardrishaig for the benefit of the local community and wider public, following the principles of sustainable development .

Who owns the Wind Farm?

The Wind Farm is owned by Allt Dearg Wind Farmers LLP (ADWF), a partnership which leases the ground on which the Wind Farm, access tracks and substation are situated, from the Stronachullin and Ormsary Estates. ADWF now has six different partners:

- 1 and 2. Ormsary and Stronachullin Estates (the Estates Partners) who own all the land, secured the planning consent and grid connection, and provide the necessary leases.
3. The Ventus Investment Funds (an Equity Partner), specialist renewable investment funds managed by London based Temporis Capital, which invested cash and structured the finance agreements with The Co-Operative Bank.
4. Lithgow Energy Limited (an Equity Partner), a private business owned by the Lithgow family, which invested cash and provides the ongoing commercial management of the project.
5. Lomond Energy, the husband and wife team who helped the Estate Partners get the project off the ground.
6. The Ardrishaig Community Trust, via their ownership of ARE Ltd, which invested about £300k to secure a 1/12th share in the partnership. This investment by ARE Ltd, which has been funded by way of a loan from ADWF, represented around 1/12th of the capital required from the partners to fund the total construction cost.

How is the Wind Farm paid for?

The total project development cost is estimated at £17.4m. This has been funded through partners' contributions (approximately 20% of the total) and a non-recourse development and thereafter 15 year term loan from The Co-operative Bank (the Bank). The Bank's loan is secured against the assets and future cash flow of the Partnership. There is absolutely no risk to the Trust as, in the very unlikely event the partnership cannot make the repayments to the Bank as scheduled, the Bank is able to "step in" to the project and assume financial control until such time as all payments have been brought up to date.

What has it cost Ardrishaig?

Community Councillors and Trust Directors put in time and effort, and were closely involved in the planning process. The Trust was also able to obtain the valuable wind data for the site as a gift from a previous potential developer, npower renewables. This wind data was accounted for as contribution in kind in the partnership agreement, reducing the amount the Trust was required to invest which, as indicated above, was provided by way of loan from ADWF. This loan will be repaid by ARE Ltd from its share of Partnership distributions over the 15 year term of the Bank term loan. The interest on this loan is matched to the 15 year term loan provided by the Bank. Unlike most other community wind farms, the Trust has not been required to invest any external funds, nor has it been provided with any Government, Council or NGO grants or loans. The Trust's external legal costs involved in the complex process of investing in the Partnership were fully funded by ADWF.

These arrangements were only possible due to the projected productivity of the site (it is very windy) and the associated level of profit and cash generation, which could support the additional level of debt required by ADWF to provide the initial £300k loan to ARE Ltd. Other funding alternatives were investigated, although unlike many other "community" projects no grant funding was offered by the Government agencies dedicated to community renewable projects. The funding solution offered by The Co-op Bank was the most cost effective option to fund the Trust's ownership. This makes the Allt Dearg project unique in Scottish community renewable projects, in that it has been entirely funded by commercial investment and loans.

What will Ardrishaig get out of Allt Dearg?

The wind farm is expected to generate sales of renewable electricity of around £4 million per annum. The total amount will vary with the amount of wind in any particular year and the future wholesale price of renewable electricity. Once the project has paid for the operational costs of service, maintenance, insurance and administration, the cash that remains is first used to make Bank loan repayments and interest payments, and thereafter a fixed profit share payment to the two "equity investors". The surplus that remains will then be divided between the "non-equity partners", including the Trust, via ARE Ltd.

It is projected that the cash to be distributed to ARE Ltd will commence from early 2014, and will be in the order of £100,000 per annum, increasing throughout the life of the project as the debts are repaid to the Bank. In a windy year, or if energy prices continue to rise, the level of cash to be distributed to ARE Ltd and onwards to the Trust will increase. Over the operational life of the Wind Farm, ARE Ltd is projected to receive and donate to the Trust funds in the order of £3 – 4 million.

The projected sums are just that - projections. The figure of £100,000 per annum is based upon the final figures used and independently scrutinised by the Co-Operative Bank's advisors at the point of "financial close" of the bank agreements. The final projected annual sums are slightly greater than originally discussed for several reasons – 1. In the absence of detailed costs and projections, assumptions were kept on the conservative side, prior to financial close. 2. Once the wind data, final farm design, contracted power sales prices, build and funding costs were established, a more accurate estimate of the wind farm's financial performance could be made.

The actual cash distributions will only be known once the wind has blown and the electricity has been generated and sold.

What do the Ardrishaig Trust Directors and Community Councillors get out of Allt Dearg?

The Directors and Community Councillors receive no payment for their involvement; if they were lucky they might have got a cup of coffee and a biscuit when attending a Partners' Meeting. They give their time and effort voluntarily for the benefit of the wider community.

What benefits has the Wind Farm brought to Argyll?

Wherever possible ADWF has sought to use local people and local firms in the development and construction of the Wind Farm. This local spend is worth between £3 and 4 million to the Argyll economy, the main elements being the construction work carried out by George McNaughton & Son of Lochgilphead, the turbine transport carried out by McFadyens Transport Ltd of Campbeltown and the manufacture of the 12 wind towers by Wind Towers Limited of Machrihanish. During construction there has been demand for a wide range of local services, including fuel and tyre supply, ecologists, archaeologists, vehicle repair and service, plant hire (diggers, generators, concrete mixers, dumpers, lighting sets, trailers, tankers, tractors, pumps, etc), joiners, welders, electricians, building materials, food, drink and accommodation of the workforce.

The up-graded and substantially new electrical grid, being built by SSE, but paid for by ADWF, will provide a more robust and better routed 33kV (the big wooden poles) electrical connection from Stronachullin to Lochgilphead. This related project has also involved considerable local expenditure and employment. In common with any major capital investment, Allt Dearg is subject to the world market, with turbine and other components sourced from around the world.

Due to the large element of local ownership, after the Bank debt has been paid the majority of the operating profits of the wind farm will be retained in Argyll by Ormsary and Stronachullin Estates, and the Ardrishaig Community. For the Estates, the ability to generate home-grown wealth allows them to re-invest, and in the process generate new demand for local goods and services, which in turn will provide for further increased employment and economic opportunity in Argyll.

In normal operation the wind farm should require very little day to day maintenance. Vestas, the turbine manufacturer, are contracted to provide a full "Operation and Maintenance" package for the first 15 years of operation. Vestas employ a number of service engineering technicians locally in Kintyre, who will carry out the routine six monthly maintenance operations, and respond to any technical issue on site. Every few years the turbines will require more substantial maintenance, and this will involve both the local Vestas team and external specialist contractors (cranes, transport, etc). The turbines are constantly monitored remotely from Denmark, and the local two man service team will spend several days every week on site carrying out routine checks and minor service tasks, this team will also respond to any alarms or breakdowns. Other elements of routine site and plant maintenance will be carried out by the Ormsary and Stronachullin Estates engineering and land management teams, bringing in specialist sub-contractors when required.

It is for the residents of Ardrishaig to spend their share of the profits on projects that are able to demonstrate tangible benefits to the local community.

From 2014, ADWF will also provide annual funding of £30,000 per annum to the Allt Dearg Educational Trust. This is a charitable trust, entirely independent of ADWF, which is charged with providing financial support to local young people in further or higher education, who are living away from home. The exact nature of the Educational Trust's support will be for the independent Trustees to decide and implement.

In terms of delivering real benefits to the hosting communities, relative to its size, the Partners believe that Allt Dearg is the leading commercially financed community owned wind farm in the UK.

What happens after 20 years?

The wind turbines have a design life of 20 years, after which time all but the Estate partners leave the Partnership. It is envisaged that the Estates will then decide the future use of their land, which may involve a new wind farm development, potentially with a similar element of community ownership.

The Partnership is required by the Planning Conditions to provide Argyll & Bute Council with a substantial Decommissioning Bond, which is backed by Bank Guarantee. In the very unlikely event that the project should fail, the Council can call upon this money to pay for site clearance.

It all sounds too good to be true, where's the catch?

The Co-operative Bank, who has provided the debt funding for the project, and the Estate partners, who provided the partnership opportunity to Ardrishaig under favourable terms, have attached certain conditions to the handling and use of the very significant share of income that will come to Ardrishaig. In the main, these conditions relate to transparency and good governance, with ARE Ltd and the Ardrishaig Trust being required to demonstrate that the funds are being used for the benefit of the people of Ardrishaig. Whilst there will always be differing views as to the priority of the various worthy local projects in the Ardrishaig area, the Trust must be able to account for the funds and demonstrate that they are being wisely spent. This follows the standards of good practice developed and implemented by the Co-op Group.

Some people for a variety of reasons will remain implacably opposed to the concept of renewable energy and the view of wind turbines in the distance. The Partners at Allt Dearg believe that a wider community ownership structure, in contrast to the majority of utility wind farm developments, offers the best model for wind farm development in combining commercial financeable projects, with the maximum level of locally derived socio-economic benefit.

Some technical information.

Allt Dearg consists of 12 Vestas V52 wind turbines, which cover approximately 1 square km of hillside. Each turbine tower is 55m tall from the ground to the hub centre of the nacelle (the box on top of the tower which houses the generator and gearbox). The swept diameter of the blades is 52m, and swept area is 2,124m square. The distance from ground to the blade tip when it is vertical, is 81m. There are around 4,000 V52 turbines already in operation worldwide.

The highest point on the Allt Dearg site is 477m from sea level. Each turbine can produce 850kW of power at full output, and after cable losses the combined site output is just under 10MW. Under normal circumstances this is enough to satisfy the electrical power demands of Ardrishaig, Lochgilphead and the surrounding area.

Allt Dearg is a very windy site, with average wind speeds well above 9 m/s (20mph); this means that the projected output of the site is relatively high, with an estimated capacity factor in excess of 40%. The UK average capacity factor is around 30%. The capacity factor is the amount of power produced relative to the theoretical maximum, if the perfect wind blew 24 hours a day for 365 days of the year, and there was no production time lost to equipment maintenance or grid failures, in theory we could produce 10MW X 24 hours X 365 = 87,600 MW hours. In practice we expect to produce around 35,000 MW hours per year, as we do not have a constantly perfect wind, and the turbines require to be shut down occasionally for routine maintenance. The wind turbines start producing power in wind speeds of about 4 m/s (9mph) and shut down in winds above 25 m/s (56mph). The optimal power generation is around 16 m/s (35mph). The normal rotor speed is 26 rpm