

What's changed?

In May 2009 Viking Energy Partnership submitted an application to the Scottish Government for a 150-turbine wind farm.

The Partnership has now revised its proposal. As Chairman Bill Manson explains: "We listened to local people, as well as the various statutory consultees and we have tried as much as possible to address their concerns."

Viking Energy has:

- Reduced the number of turbines by 23
- Removed an entire section around Voe and Collafirth
- Substantially cut the area covered by the completed wind farm
- Reduced the carbon payback period to less than one year

The risk for birds has been significantly reduced in the revised design. Working in conjunction with SNH and RSPB we reviewed the bird impacts and this led to a targeted removal of turbines. A particular emphasis has been placed on protecting birds with priority status – red throated divers, merlins and whimbrels.

A major new heritage project has been included in the revised project which will allow residents and visitors alike to experience, enjoy and connect with the central Mainland's cultural heritage.

Other changes include two fewer access junctions and 14km less access tracks.



Main image: Burradale wind farm. Shetland's existing wind farm, where the turbines are substantially smaller than those planned for Viking. Inset: Whimbrel.

Viking Energy Partnership

Viking Energy is a 50:50 partnership between Viking Energy Ltd and SSE Viking Ltd. Viking Energy Ltd is 90% owned by the Shetland Charitable Trust. 10% is held by the people who developed Burradale wind farm.

Harnessing our natural resources

Shetland has a long tradition of using its natural resources to provide jobs and wealth – from fishing to oil – and this is a chance to harness the wind.

Previous generations in Shetland were far-sighted in negotiating a deal for oil funds which transformed the islands' economy. But the charitable trust needs a new source of income.

There will be more than 170 jobs created during the construction of the wind farm over four years. But the legacy will last for much longer. Similar skills will be required if we are to take advantage of the opportunities presented by marine energy – both tidal and wave – as well as other renewable technologies of the future.

The wind makes Shetland the natural place for a wind farm. Betsy, one of the Burradale turbines, is one of the most productive on-shore wind turbines in the world. She has an average load factor (a ratio of actual output against theoretical output) of 53%. This compares with an average load factor of 35% for hydro and 49% for nuclear, according to the 2008 Digest of UK Energy Statistics UK.

Boost to the Shetland economy

“The best opportunity for Shetland since the creation of the oil fund in the 60s”. That’s how Councillor Bill Manson, Chairman of the Viking Energy Partnership sums up the wind farm project.

It is estimated the new-look wind farm could inject almost £1 billion into the Shetland economy over its lifetime. This includes an estimated £23 million boost to the Shetland Charitable Trust each year, as well as £1 million a year to local communities.

For despite the reduction of 23 turbines, the revised project should still offer a broadly similar financial return because power purchase contracts have increased in value.

Carbon Payback

As a direct result of consultation responses the development team revisited the carbon payback assessment. Twenty-three fewer turbines and 14km less of access tracks have reduced the amount of peat expected to be disturbed.

There are also other reasons for the reduction. As Project Officer David Thomson points out: “The standard model we used calculated the carbon payback time on an assumption that all the peat on the site was in pristine condition and that all the peat that was disturbed during construction would be completely destroyed.

“Since then we have carried out additional survey work looking at the actual condition of the peat and have revised the model to reflect this. More than two thirds of the peat is in poor condition and is emitting rather than storing carbon.” The MacAulay Land Research Institute has also conducted surveys on the condition of peat on the site.

Viking Energy has followed best practice in all its work in what is an emerging field of expertise. The approach adopted by Viking Energy - both in the way it has carried out the survey work and the way it has applied the Government's carbon calculator model - has been reviewed independently by the MacAulay Land Research Institute with the aim of improving the robustness of these calculations.

Our calculations now show that Viking Energy wind farm could pay back its carbon in less than one year.



Making the connection

The wind farm needs to be big enough to justify the cost of the cable to the mainland which will allow Shetland to export the electricity from the wind farm.

We have reduced the size of the wind farm to address the concerns of local people and statutory consultees. At the same time, we have always had to consider that the project needed to remain large enough to justify the interconnector. This would open up opportunities for wave and tidal projects as well as other smaller wind farms.

Continuing the dialogue

You can find out more by logging on to www.vikingenergy.co.uk.

To officially register your comments during the Scottish Government's consultation, you can:

E mail the Energy Consents Unit at: energyconsents@scotland.gsi.gov.uk quoting "Developer: Viking Energy Partnership Wind Farm"

or

Write to the Energy Consents Unit at: Energy Consents Unit, Scottish Government, 5 Atlantic Quay, 150 Broomielaw, Glasgow G2 8LU

Viking Jobs

174 jobs during construction
42 project jobs
23 support jobs

Image: Hadyard Hill Wind Farm, Ayrshire. The Viking Energy turbines will be larger than at Hadyard Hill. Inset: Whimbrel.