VENTIENT ENERGY

GOING WITH THE FLOW

ASSESSING THE ENVIRONMENTAL IMPACT AT CAUSEYMIRE WIND FARM

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FROM MOST PERSPECTIVES, FIFTEEN YEARS IS A LONG TIME. IN THE YEARS THAT HAVE ELAPSED SINCE CAUSEYMIRE WIND FARM IN CAITHNESS OPENED IN 2004, MUCH HAS CHANGED. TECHNOLOGIES HAVE PROGRESSED, ATTITUDES HAVE ALTERED, BUSINESS OBJECTIVES HAVE SHIFTED AND SOCIETY'S NEEDS HAVE INCREASED. MEANWHILE, THE WILDLIFE OF CAUSEYMIRE HAS QUIETLY FLOURISHED.

For some businesses, a Section 75 Planning condition with a related Management Agreement can be an onerous inconvenience. Yet, we believe, it can also be a valuable opportunity. When Causeymire's planning permission was approved, a fifteen-year environmental study was built into the consent for the construction of the 21 turbine site on an area of open peatland bordering the A9 south-west of Mybster, in Caithness.

What those years of rigorous scientific discipline have given us is a unique insight, not just into the endlessly fascinating wetlands of the Flow Country, but into the hard data that helps us all evaluate the environmental impact of onshore wind farms.

THE ANSWER ISN'T BLOWING IN THE WIND

Perhaps the most important aspect of Dr. Tom Dargie's 170 page *Concluding Report on Habitat Enhancement Monitoring 2004-2019* is that the sole purpose of the fieldwork was to simply monitor and report on change. Its methodologies had no ambition to prove one way or another the effect of the wind farm, merely to report on what actually changed during the course of the 15 year period.

With no agenda, objective science prevails and the answers to the speculative questions asked all those years ago, can be confidently provided.

A LOOK AT THE HIGHLIGHTS

The highlights make encouraging reading both for wind farm owners and conservationists alike.

At Causeymire, a large Habitat Monitoring Survey Area extending to 1129 hectares was defined at the outset (and then reduced to 946ha in 2019 due to an additional wind farm development on former survey ground). Within the survey area, a Habitat Enhancement Area (7.7ha) was also identified for special remedial measures aimed at raising the heather height to make it more attractive to breeding raptors.

Early in the process, drain blocking measures were completed to improve the quality of the site's bog pool systems which includes an extremely rare 'eccentric raised bog' – the only one of its kind recorded in the UK.

Across the period sheep, cattle and deer grazing was also actively controlled to encourage changes to the vegetation in different areas of the site.

With these changes in place, nature was allowed to take its course. The results are encouraging:

- The Royal Society for the Protection of Birds (RSPB) monitoring method shows large improvements in bog conditions and breeding bird habitats.
- Heather cover has improved across the site.
- Sphagnum moss cover has increased remarkably from a 2004 baseline figure of 11% (115ha) to 48% (452 ha) in 2019 – a higher level than cover on many parts of the Flow Country.

WHAT ABOUT THE BIRDS?

At a site like Causeymire, birdlife is a barometer of environmental health. They're a very visible indicator of the ecosystem. If a site is in rude health, it will ring to the tune of each distinctive bird song and the comings and goings of various species can be easily monitored from a well-chosen vantage point.

Birds sit high in the food chain. If there's an abundance below, the birds will thrive. Yet, intuitively, there's a feeling that birds and windfarms shouldn't mix. There's something about the combination of the power of turning turbine blades and the mid-air movements of our feathered friends that suggests calamity is inevitable. Causeymire gives us hope.

At Causeymire, flight activity and vantage point surveys as well as breeding bird surveys were employed. Using methodology approved by Scottish Natural Heritage, detailed surveys were conducted at agreed intervals and measured against a pre-construction baseline. Surveys by the RSPB also featured as part of their own two-year study investigating the relationship between birds and operational wind farms.

The boggy Flow Country is particularly important for various species of wading bird – including golden plover, dunlin and greenshank as well as the more common curlew, redshank, lapwing and oystercatcher. Because of its environmental diversity, Causeymire's target list includes waders, raptors, wildfowl, gulls, skuas, heron, raven and red grouse.

The pre-construction baseline surveys recorded a total of 29 species using the site. All of these species have been re-recorded in subsequent studies while a further 38 species have been added to the list, taking the total number of recorded bird species to 67.

In terms of flight activity, analysis of the 2019 dataset along with the previous years' data suggests a positive linear trend in the number of flights recorded over time both in terms of flights overall and the all-important flights at rotor height.

For breeding birds at the site, diversity has increased and the data set indicates a positive trend that is not present in the control sites which show a much lower level of diversity. Against the control sites, numbers of breeding waders in particular also show an increase.

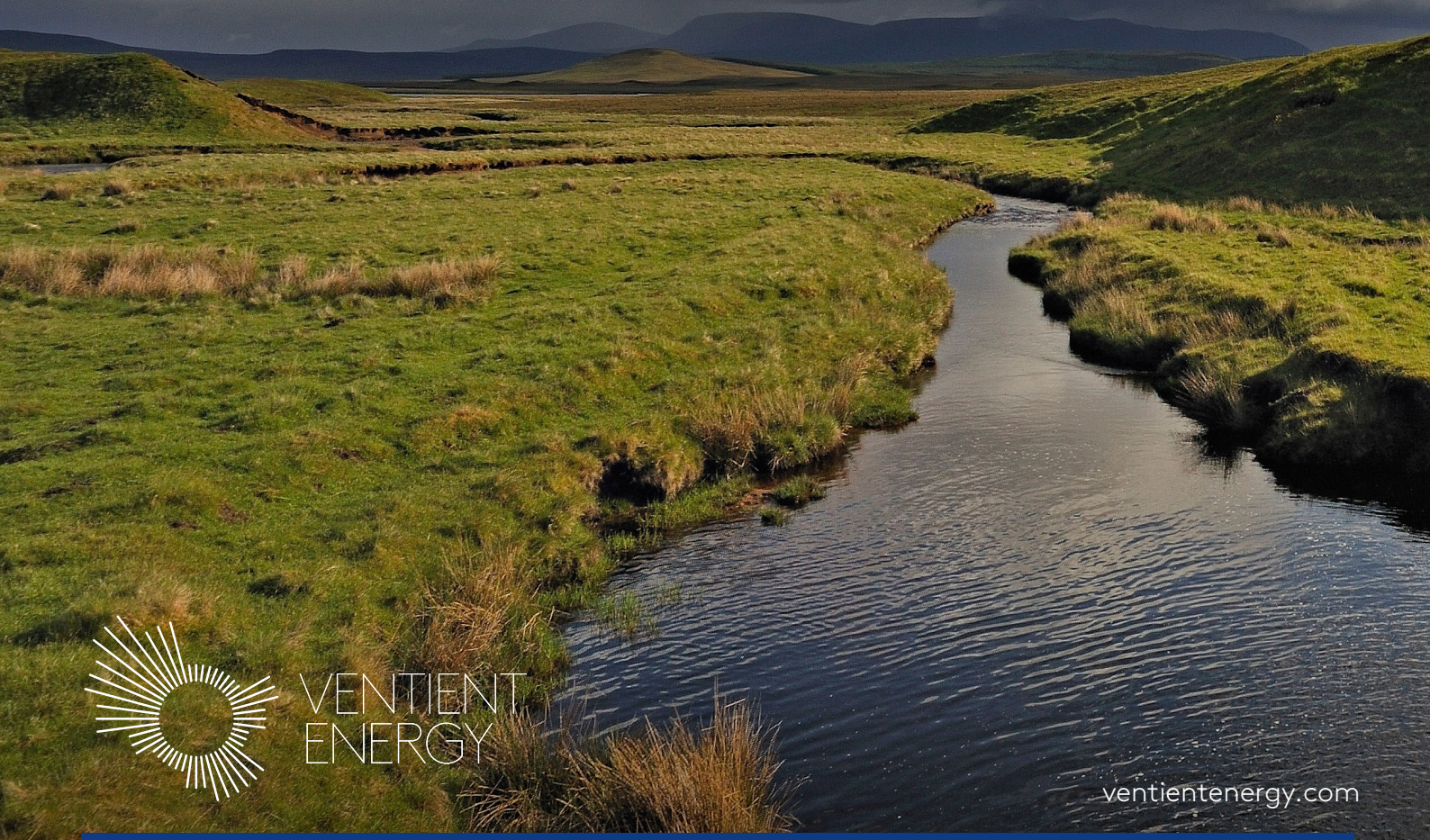

Greenshank


Dunlin


Golden Plover

HOPE FOR THE FUTURE

WHILE THE CONCLUSIONS OF THE YEARS OF STUDY AT CAUSEYMIRE ARE COMPLEX, THE GENERAL TRENDS ARE REASSURING. FOR WIND FARM OPERATORS LIKE VENTIENT ENERGY, ENVIRONMENTAL ISSUES ARE OF PARAMOUNT IMPORTANCE. OUR AIM IS TO BE A GOOD NEIGHBOUR NOT JUST TO PEOPLE WHO LIVE NEAR OUR SITES BUT TO THE INCREDIBLY DIVERSE VARIETY OF WILDLIFE THAT SHARES OUR PLANET. WHILE WIND ENERGY IS A BEACON OF HOPE AS HUMANITY TRANSITIONS FROM ITS RELIANCE ON CARBON-BASED FUELS, IT'S ALSO CLEAR FROM CAUSEYMIRE THAT THE TURBINES REQUIRED TO HARNESS THE WIND CAN COMFORTABLY CO-EXIST IN AN ENVIRONMENT THAT POSITIVELY ENCOURAGES BIODIVERSITY.



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Ventient Energy is a pan-European, non-utility generator of renewable energy. It currently owns and operates onshore wind farms in Belgium, France, Germany, Portugal, Spain and the UK, with a total installed capacity of 2,5GW.Ventient's portfolio has grown quickly since its formation in 2017. The business focuses on sustainable growth that provides long term returns to their pension fund shareholders and generates renewable energy to help secure the future of people and the planet.