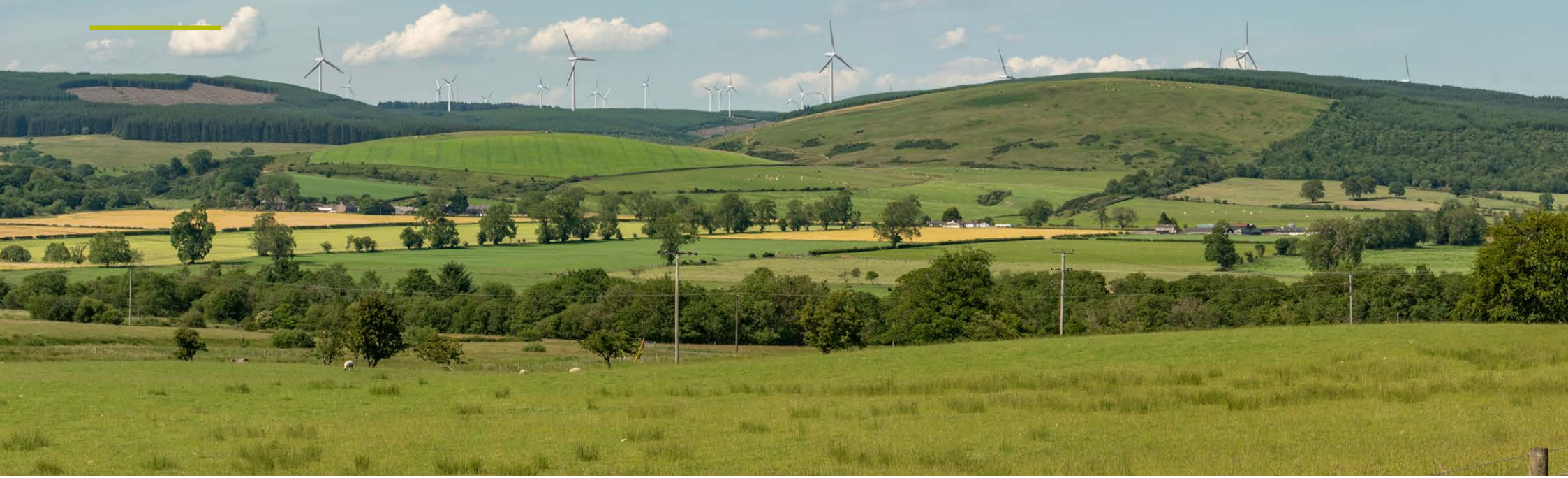
Harestanes South Windfarm Extension

A proposal to extend the operational Harestanes Windfarm in the National Forest Estate, South West Scotland.



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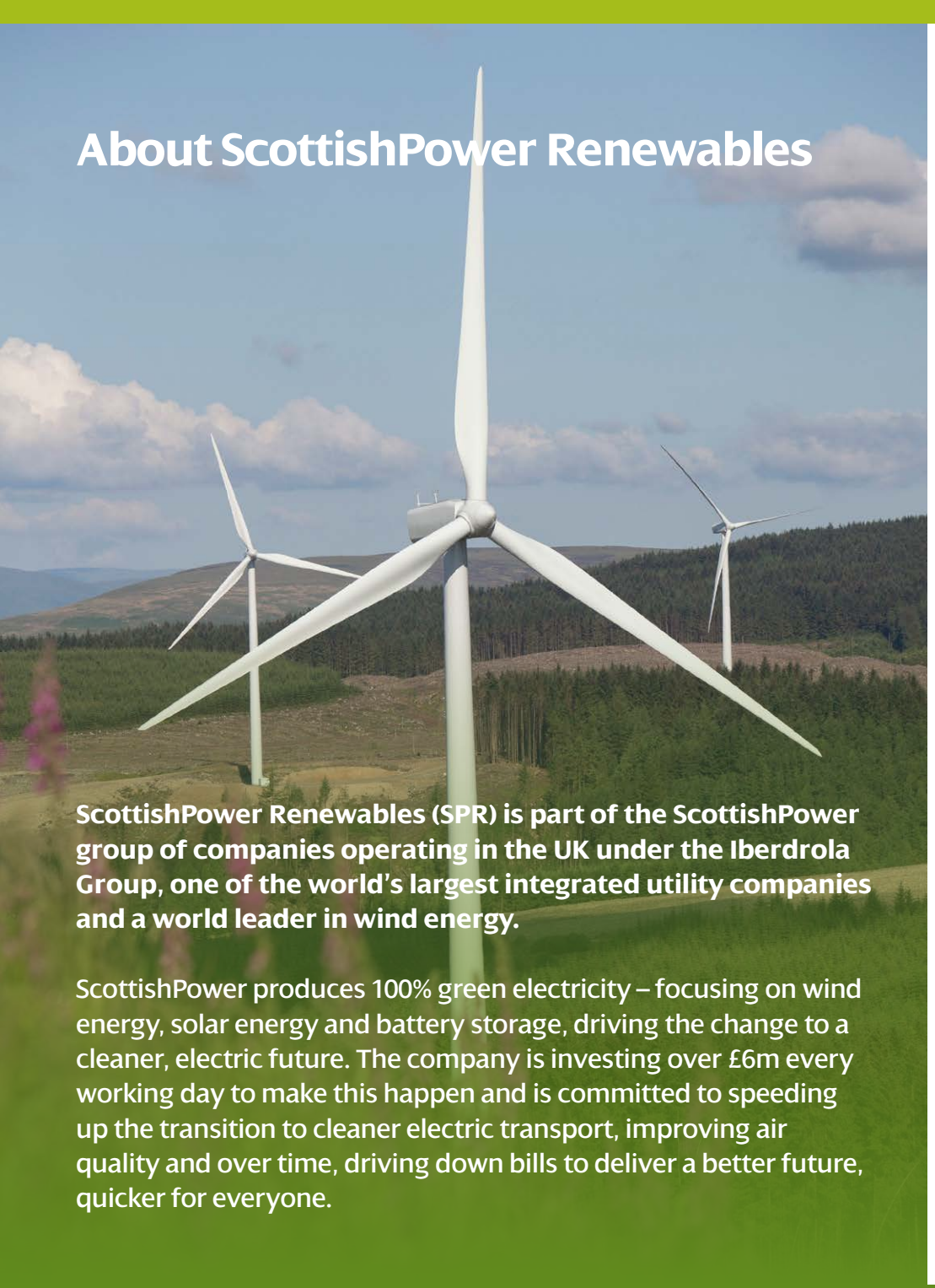
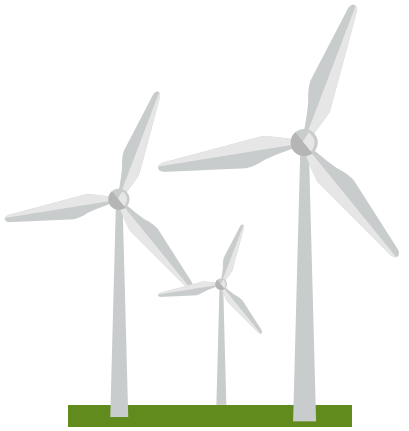


About ScottishPower Renewables

ScottishPower Renewables (SPR) is part of the ScottishPower group of companies operating in the UK under the Iberdrola Group, one of the world's largest integrated utility companies and a world leader in wind energy.

ScottishPower produces 100% green electricity – focusing on wind energy, solar energy and battery storage, driving the change to a cleaner, electric future. The company is investing over £6m every working day to make this happen and is committed to speeding up the transition to cleaner electric transport, improving air quality and over time, driving down bills to deliver a better future, quicker for everyone.

Site Summary - Key Facts



8 wind turbines

of approximately
5.6MW capacity

Up to **200m** tip height

Installed capacity
of around **45MW**

Annual energy generation is estimated at approximately **90.6 gigawatt-hours (GWh)**

Increasing the annual production of our operational Harestanes by approximately **32%** (1)

Generating enough power for over **24,190 homes** p.a. (depending on final capacity) (2)

Economic Benefits

SPR will set out measures for the contractor to provide employment opportunities in the local area

Provision of a Community Benefit Fund

The proposed windfarm will have direct employment and indirect opportunities generated in the supply chain and local economy from the spending of additional wages

Project turnover estimated at £59 million

58% UK content

The local economy would be boosted by a total of £3 million of net Gross Value Added (GVA) during the construction period

The Scottish economy would benefit by some £9.2 million net GVA

Benefits to the Community and Recreational Enhancements

SPR's operational windfarms have, to date, contributed more than £11 million of support towards community initiatives close to our windfarms in Dumfries & Galloway. SPR's preferred approach is to empower local communities to determine how available funds are used to deliver the greatest benefit locally. In addition, SPR is proposing to implement enhancements to the local recreational facilities near Harestanes South*:

Provision of information boards regarding the proposed windfarm

Provision of a shelter with tools for bike maintenance and a place to shelter / picnic

Promotion of family friendly biking or horse-riding routes around the proposed windfarm using existing forest tracks

Support for the employment of a seasonal ranger to assist with the management of core footpaths in the area

Electric vehicle charging points in Ae Forest Carpark

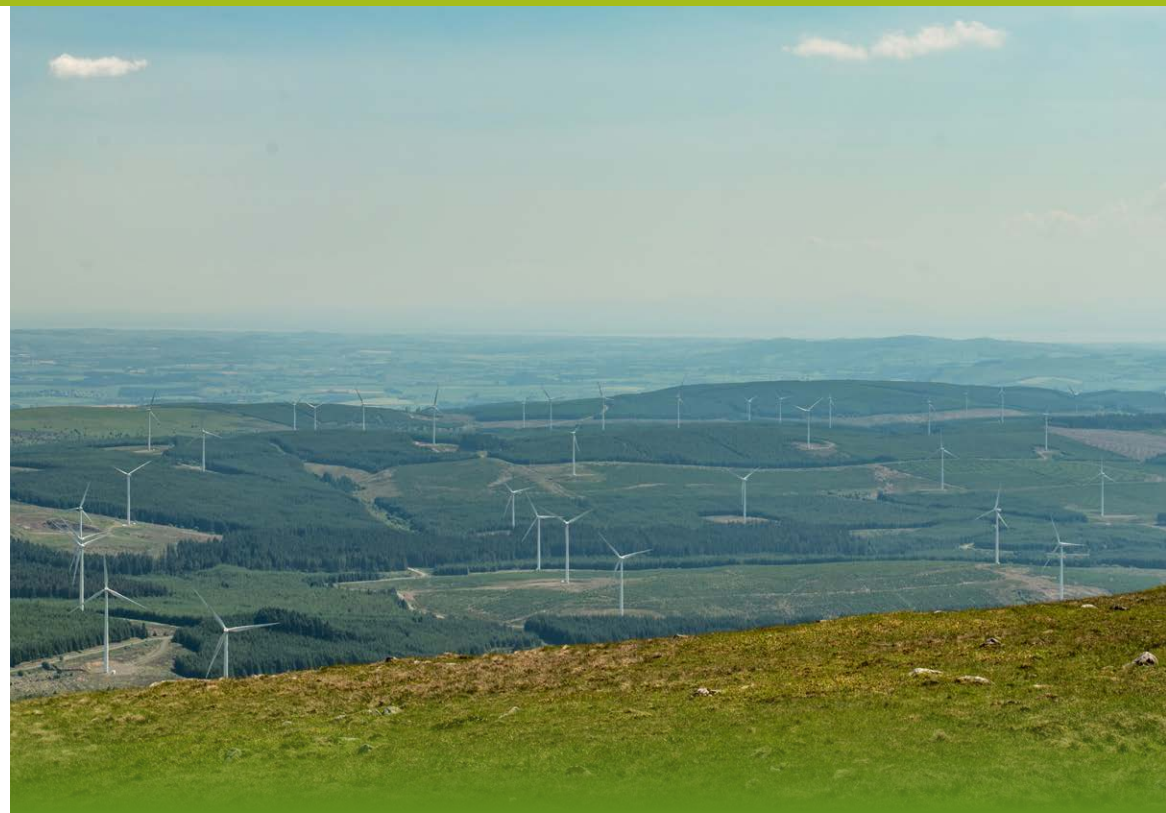
Financial support to facilitate the purchase of E-bikes for rental at the 7 Stanes Forest of Ae Mountain Biking Centre

Harestanes South Windfarm Extension Economic Impact:

During the lifetime of the windfarm it is expected to create opportunities in the area for businesses to supply services such as:

- Haulage and transport services
- Traffic management
- Materials supply, e.g. aggregates
- Plant and equipment hire
- Vehicle servicing / tyres
- Forestry services
- Fencing
- Fuel
- Security
- Waste management
- Building construction: electrical, plumbing, roofing, flooring, plastering, decorating and joinery services
- Signing and lighting
- Telecommunications
- Drainage
- Planting and seeding
- Cleaning
- Catering
- Accommodation

"For the twenty-odd years we've been carrying out work for SPR, our relationship has been completely positive. SPR's business has not only benefitted us, but also those other local businesses, such as suppliers and builders merchants, who we use in order to acquire materials for the works."
Niall Corrigan, William & Henry Alexander (Civil Engineering) Ltd.



Construction & Operation

Construction Phase:

- During construction the proposed windfarm could support, in net terms, approximately 52 jobs in Dumfries & Galloway and Estimated 155 jobs for Scotland as a whole
- Other indirect local businesses such as builders merchants, restaurants, hotels and bars are likely to also experience an increase in business from the contractors working on the project

Operational Phase:

- During the operational phase, the proposed windfarm is expected to require between 3 and 5 new full-time employees (engineers and technicians). Additional benefits would extend to the local supply chain as a result of services supplied to the operational windfarm
- Other locally associated roles will include material suppliers, local shops, plant hire and environmental monitoring consultants

Climate Change & Carbon Reduction

The potential to support the Green Recovery and save in CO_2 emissions due to the proposed windfarm replacing other electricity sources over its lifetime are approximately:

- 115,135[3] tonnes of CO_2 avoided annually compared with a fossil fuel-mix of electricity generation
- repayment of emissions related to its construction, operation & decommissioning in around 3.5 years

The development of Harestanes South Windfarm Extension will make an important contribution to reducing CO_2 emissions. In Scotland, The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 was passed in September 2019 which sets out a net zero target by 2045 and further interim targets of reductions in CO_2 emissions of 56% by 2020, 75% by 2030 and 90% by 2040. These targets build on the Scottish Energy Strategy's (Scottish Government 2017) target of 50% of all energy (including transport, heat and electricity) being supplied from renewables by 2030.

Environment and Infrastructure

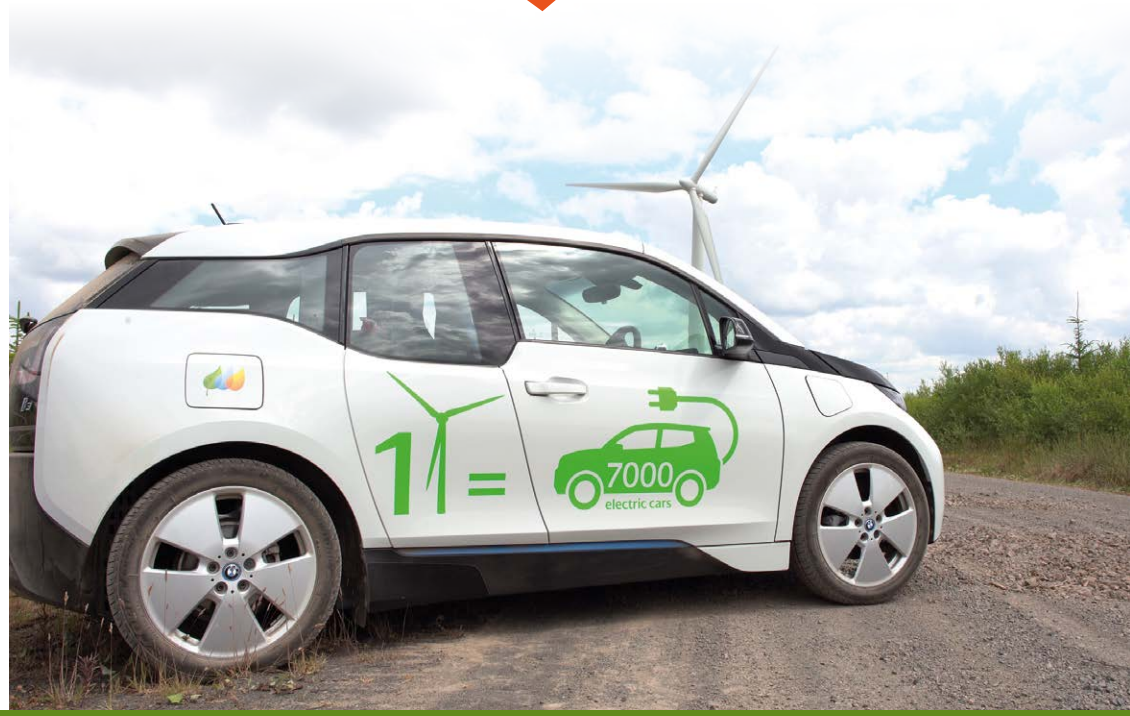
The proposed windfarm would be located in an existing commercial forest that is predominantly covered by Sitka spruce plantations. An Outline Habitat Management Plan (OHMP) is proposed for the windfarm which will enhance the nature conservation value of the renewable energy site.

The existing infrastructure at the operational Harestanes Windfarm and forest is to be utilised where possible:

- 79% of the proposed windfarm will utilise existing forestry tracks to reduce earthworks
- Existing water crossings are to be used & upgraded for new cable routes
- Limiting movements to specific corridors avoiding sensitive receptors such as deep peat
- The existing operational Harestanes Windfarm substation will be upgraded to provide a grid connection

Powering the Future

Onshore wind is one of the cheapest large-scale renewable energy sources that can be deployed at significant scale[4]. In Winter 2021, 86% of the public expressed support for renewable energy according to a Public Attitudes Tracker, published quarterly by the Department for Business, Energy and Industrial Strategy (BEIS) in March 2022[5].



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References
(1) Percentage derived from: operational Harestanes recorded capacity factor/yield (136MW x 8,760 hours/year x 0.241 = 287,117MWh) & Harestanes South forecast capacity factor/yield (45 MW x 8,760 hours/year x 0.23 (BEIS annual onshore wind capacity factor (2021), published March 2022) = 90,666MWh) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1064290/ET_6.1_MAR_22.xlsx
(2) BEIS; Sub-National Electricity and Gas Consumption Statistics, Dec 2021 (based on average UK household consumption of 3748KWh)
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1079141/subnational_electricity_and_gas_consumption_summary_report_2020.pdf
(3) Harestanes South Windfarm Extension EIAR Report – Chapter 13: Other Issues - Carbon Report, 2020
(4) BEIS; Electricity Generation Costs 2020, Aug 2020.
(5) BEIS Public Attitudes Tracker: Energy Infrastructure and Energy Sources Winter 2021, published 31st March 2022.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1064032/BEIS_PAT_Winter_2021_Energy_Infrastructure_and_Energy_Sources.pdf
*Subject to agreement

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Cover Image: Harestanes South Windfarm Extension Environmental Impact Assessment Report (2020) Figure 5.20d. Viewpoint 10: A710 South of Ae Bridgend. Photomontage, turbine tip heights 200m.
Other Images: Operational Harestanes Windfarm, turbine tip heights 120m.