

01 - Welcome

Burgar Hill Repower - Public Consultation Event



Welcome

Thank you for taking the time to attend today's consultation event. This event provides an opportunity for the local community to view the updated layout for the proposed repowering of the Burgar Hill Wind Farm, which has been developed following the completion of environmental surveys and in response to feedback from previous consultation events and discussions with consultees.

The exhibition also provides information on the Environmental Impact Assessment (EIA) and the assessments undertaken to support the forthcoming Planning Application.

Please take time to review the information on display. Members of the project team from **Burgar Hill Energy** and **Green Cat Renewables**, the appointed planning consultant, are available to answer any questions.

We value your feedback and welcome your views as we finalise the proposal.



Who We Are

Burgar Hill Energy (BHE) is a joint venture between **Burgar Hill Renewables (BHR)** and **Thrive Renewables plc**, formed to repower the wind farm at Burgar Hill as it reaches the end of its current operational life.

Burgar Hill Renewables Limited owns the majority of the land at Burgar Hill and operates a 2.3 MW Enercon E-70 turbine, commissioned in 2009. The company is owned by Orcadians Mervyn and Maureen Spence and their family.

Thrive Renewables plc works to tackle the climate emergency by funding, building, and operating clean energy projects. Founded in 1994, Thrive has operated a 1.3 MW turbine at Burgar Hill for over ten years.



02 - Burgar Hill History

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Burgar Hill is a nationally and internationally significant wind energy site, with a history of research and innovation dating back to the 1980s.



Early Developments - 1980s:

Burgar Hill was established in the early 1980s as a test site for wind energy technologies, taking advantage of Orkney's challenging wind conditions. The site was part of wider efforts to develop renewable energy following the energy crises of the 1970s.

A key installation was a 3MW experimental wind turbine, which was among the largest in the world at the time. Smaller turbines were also deployed to test different blade designs and generator systems in high-wind environments.



Transition to Modern Day - 1990s:

By the early 1990s, Burgar Hill shifted from experimental research to commercial wind energy generation, reflecting advances in turbine technology and growing demand for renewable energy.

During the late 1990s, several modern wind turbines were installed, marking the site's transition to operational wind energy. While smaller than the pioneering 3MW turbine, these installations reflected the emerging commercial wind energy industry.



All 6 operational turbines are $\leq 116\text{m}$ to tip.

Early 2000s:

Burgar Hill currently hosts six operational wind turbines of varying makes and models, including Nordex, NEG Micon and Enercon machines, with a combined capacity of approximately 12.5MW.

Now aged between 16 and 25 years, the turbines have delivered a highly productive operating life due to the site's windy conditions.



The 5 new turbines will be up to 149.9m to tip.

2020s and Beyond:

As the UK works towards its 2030 clean energy targets and net zero ambitions, Burgar Hill Energy aims to ensure the historic Burgar Hill site remains at the forefront of renewable energy generation in the UK.

The proposed repowering of Burgar Hill Wind Farm represents the third cycle of energy development on the site.

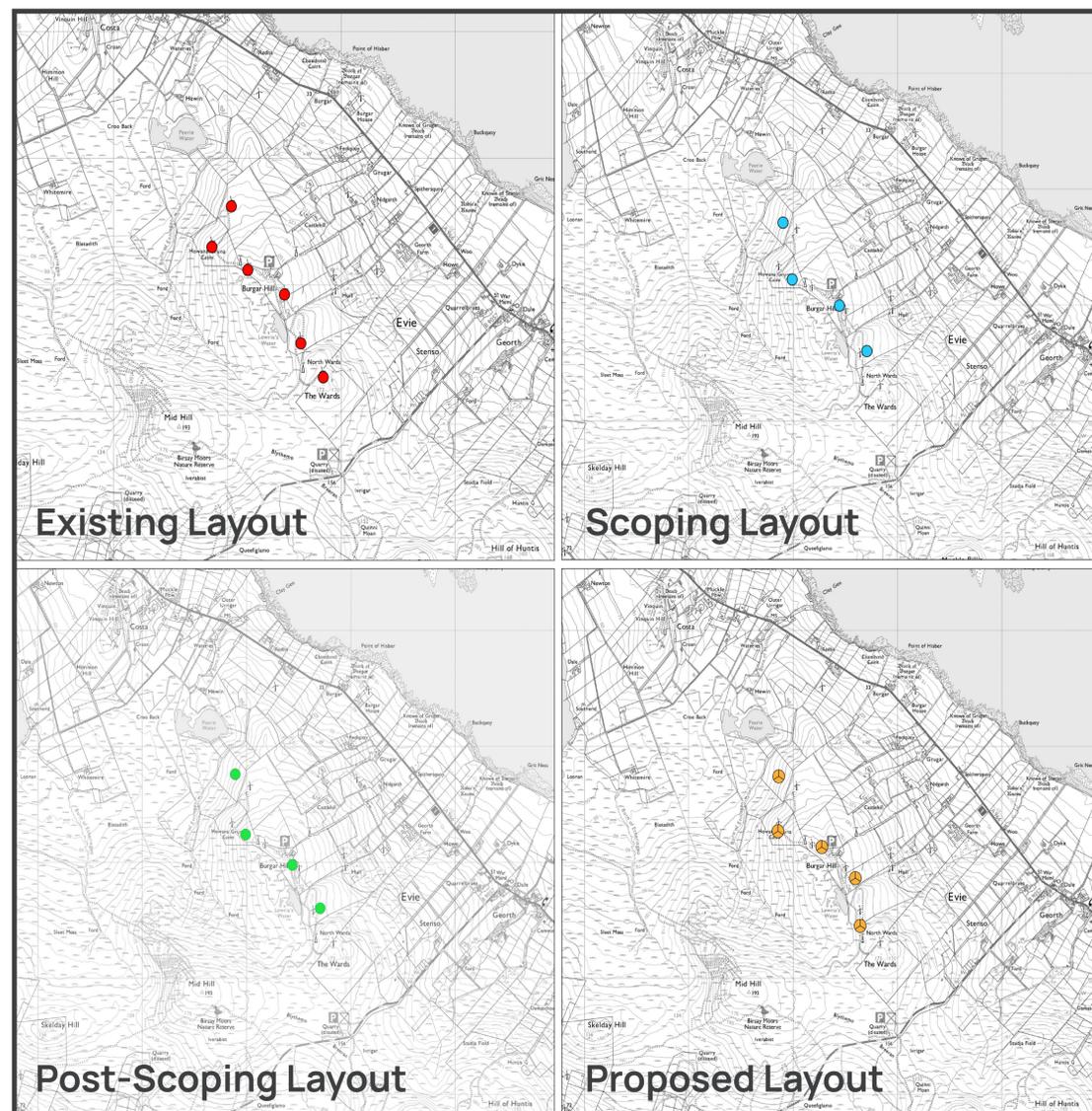


03 - Proposed Repower

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The repowering proposal will see five of the existing turbines replaced with **five modern turbines up to 149.9m to blade tip, delivering a total generating capacity of between 25-30MW**, doubling the current capacity of the site. As the project is under 50MW, the planning application will be submitted to the Local Planning Authority (Orkney Islands Council).

If planning permission is granted in 2026, Burgar Hill Energy anticipates that development could begin with 12 months, subject to compliance with planning conditions.



Design Evolution

Since the consultation events held in July and September 2025, the layout has evolved in response to **survey findings, consultations with specialists, and feedback** from local residents and stakeholders.

All required surveys have been undertaken, and consultation has been ongoing with Historic Environment Scotland (HES), Highlands and Islands Airport, Joint Radio Company, and the local community. As a result the design, size, and layout of the Proposed Development have been reviewed.

Key changes to the Site Layout include:

- **Turbine height reduced from 200m to 149.9m to tip** to reduce effects on the setting of nearby Scheduled Monuments and the World Heritage Site, as well as to reduce landscape and visual effects, remove impacts to Kirkwall Airport, and has the added benefit of not requiring aviation lighting.
- **An additional turbine added** to offset the reduced energy output from the lower turbine height, with the layout closely reflecting the existing scheme to maintain a familiar landscape character.
- **Sensitive habitats, hydrological receptors, and peatland were avoided** in so far as possible, with maximum reuse of existing track infrastructure.

The current proposal comprises **five wind turbines with a maximum tip height of 149.9m**. This refined design balances renewable energy generation with environmental protection, heritage considerations, and community feedback, while continuing Burgar Hill's established role in renewable energy.



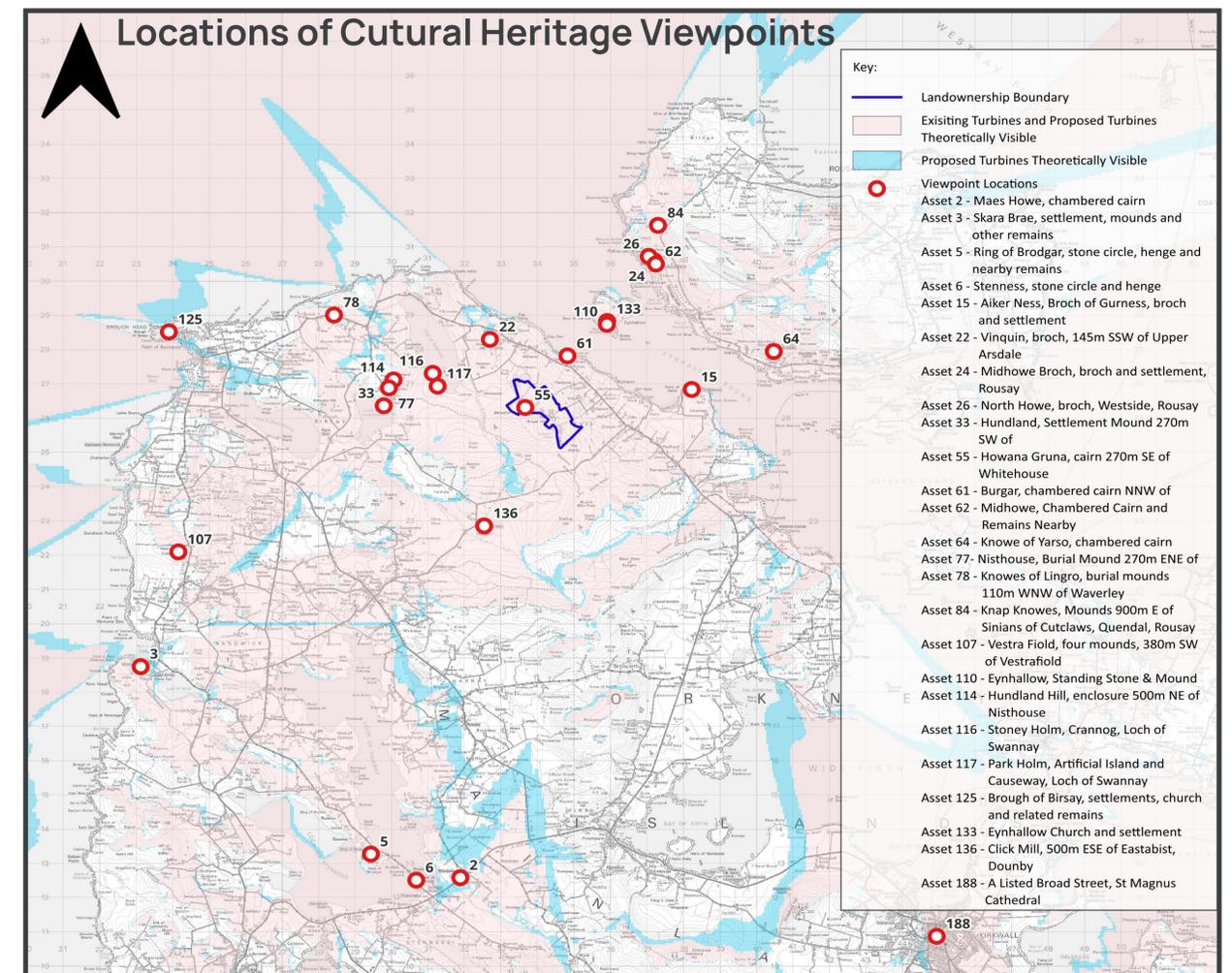
04- Cultural Heritage & Archaeology

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Cultural heritage consultants have undertaken detailed surveys and assessments on the Burgar Hill site and surrounding area. This work has included an archaeological walkover survey, assessment of the setting of both designated and non-designated heritage assets, and research at the Orkney Islands Archive.

Following extensive consultation with the OIC Archaeologist and HES, the scope of the assessment has been expanded. As a result, the EIA now includes **25 cultural heritage viewpoints**, locations shown in the figure below, representing a wide range of designated assets using wirelines and photomontages. Nearby non-designated heritage assets in proximity to the Site have also been considered.

To minimise potential effects on Scheduled Monuments and the World Heritage Site, the Proposed Development has been redesigned. Turbine height has been reduced by over 50m, to a maximum tip height of 149.9m, making the **turbines less prominent within the wider historic landscape**. The revised design also includes a fifth turbine, creating a layout more similar to that of the existing scheme. These design changes seek to **minimise the impacts upon the setting of a number of heritage assets**, particularly with regard to the World Heritage Site, by decreasing the vertical presence of the turbine towers above the skyline.



05 - Ecology & Ornithology

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Ecology

Specialist ecological consultants have completed non-avian ecological surveys across the Burgar Hill site, with input from consultees including NatureScot, Scottish Environment Protection Agency (SEPA) and the OIC. The surveys covered habitats, mammals, and other protected species.

Completed surveys include:

- Ground Water Dependent Terrestrial Ecosystems (GWDTE)
- Otters
- Orkney vole
- Habitat surveys

The **results of these surveys have informed the project design**, with sensitive habitats avoided wherever possible. The assessments are being finalised but are expected to conclude that **no significant ecological effects are anticipated** as a result of the proposed repower, with potential impacts managed through the design process and appropriate mitigation.

The EIA will also set out measures to **retain, protect and enhance biodiversity** on the Burgar Hill Site during construction and operation.

Ornithology

Burgar Hill Wind Farm has coexisted with local bird life for over 40 years, with **frequent impact monitoring undertaken in recent years**. These monitoring programmes, together with a range of additional **ornithological surveys and consultation** with key stakeholders including NatureScot, have provided a robust dataset to inform the updated assessments that will accompany the planning application.

The key species considered in these surveys include Red-throated Diver, Great Skua, Hen Harrier, Short-eared Owl and Arctic Skua.



06 - Hydrology, Transport & Access

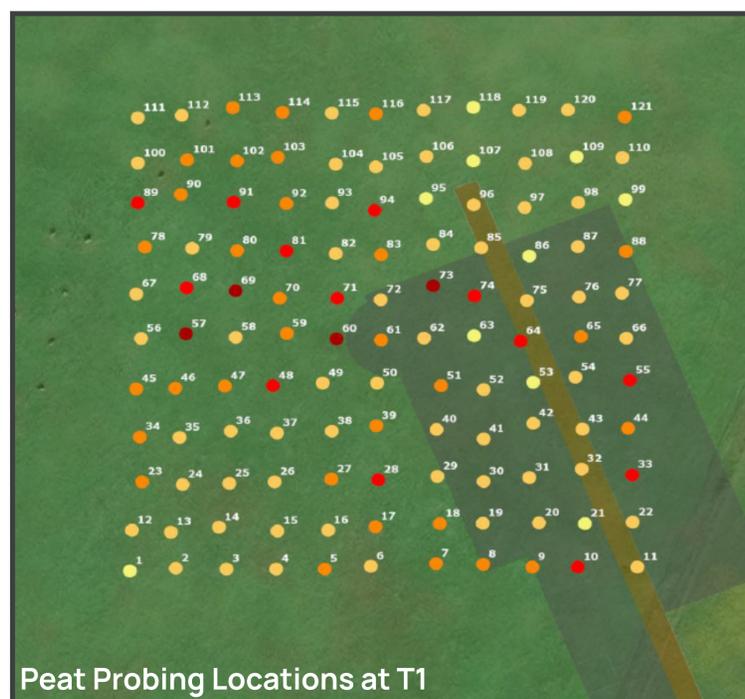
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Hydrology

Desk-based assessments and site surveys (including peat probing) have been carried out to identify hydrologically sensitive areas within the study area.

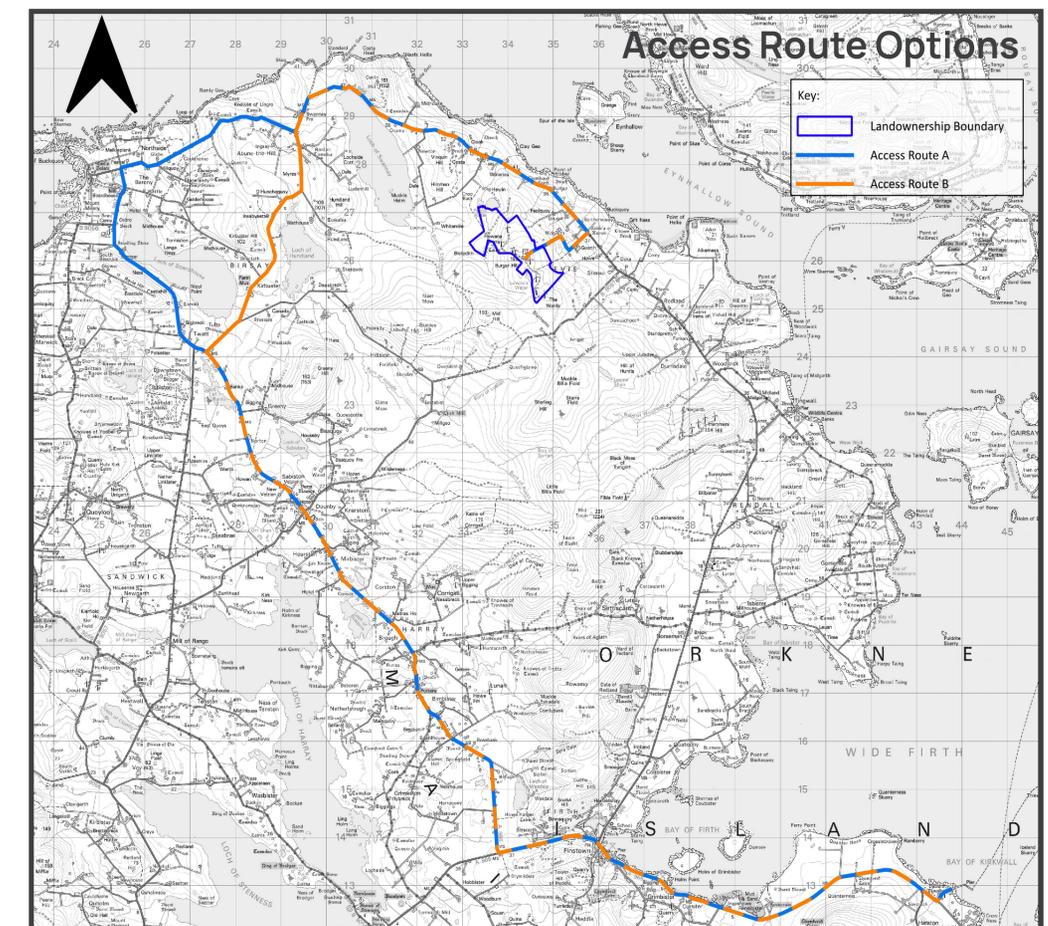
Carbon-rich peat, private water supplies, underlying bedrock, ecological designations, and watercourses were identified as sensitive receptors and have been considered in the repowering design. **Peat probing results have directly informed the layout**, with infrastructure sited to avoid deeper peat and sensitive areas wherever possible.

The assessment has concluded that **no significant impacts are anticipated**. Where effects could occur, appropriate mitigation measures will be implemented to protect the water environment, private water supplies, and carbon rich soils.



Transport and Access

Further technical assessments have narrowed down the viable access routes for delivering turbine components to the site. These **routes are being explored through swept path analysis**, to ensure safe and suitable access. Both approaches will be presented in the EIA Report.



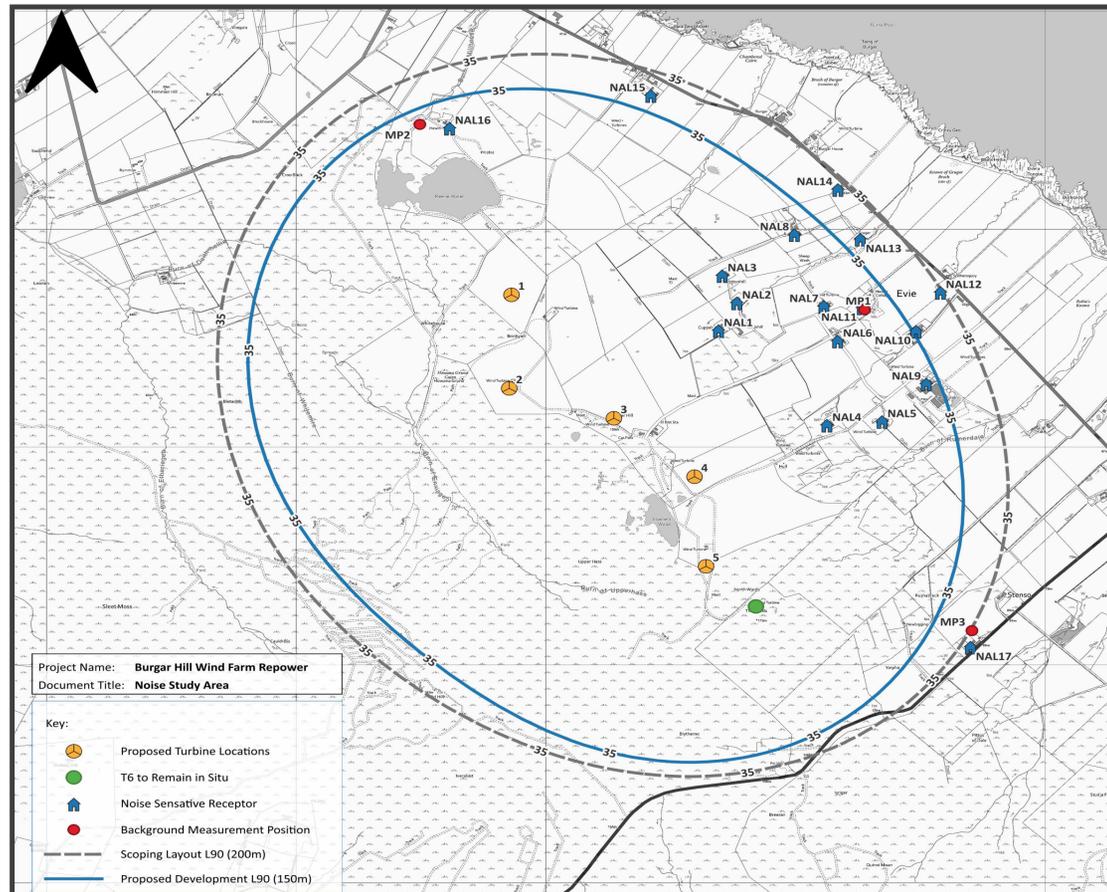
07 - Shadow Flicker & Noise

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Shadow Flicker

Shadow flicker can occur when the sun passes behind the blades of a turbine, causing a flickering shadow effect on nearby properties at certain times of day and year. This can be predicted, modelled, and managed using specialised software.

The Burgar Hill repower has been designed to minimise the potential for shadow flicker. **By reducing the rotor diameter of the blades, potential shadow impact falls below the standard threshold at all nearby receptors.** The results of this modelling will be set out in the EIA Report and secured through planning conditions if consent is granted.



Noise

Noise is an important consideration in the planning process as it can affect both the environment and people's quality of life.

Planning noise constraints are applied to ensure operational noise remains at low at all times of day. These limits are based on existing background sound levels in the absence of any noise from turbines. A **background noise survey was conducted at nearby Residential Properties to set noise limit criteria** for day and night.

The assessment indicates that the **noise limits can be met**, with mitigation in place where required through the use of sound optimised operating modes. This revised layout, using five smaller turbines, indicates a **noise benefit compared to the 200m turbine option** previously proposed.

Although noise during construction may be higher than during the operational period, this will be temporary and carefully managed through best practice measures and strict planning controls.



08 - Landscape & Visual Impact

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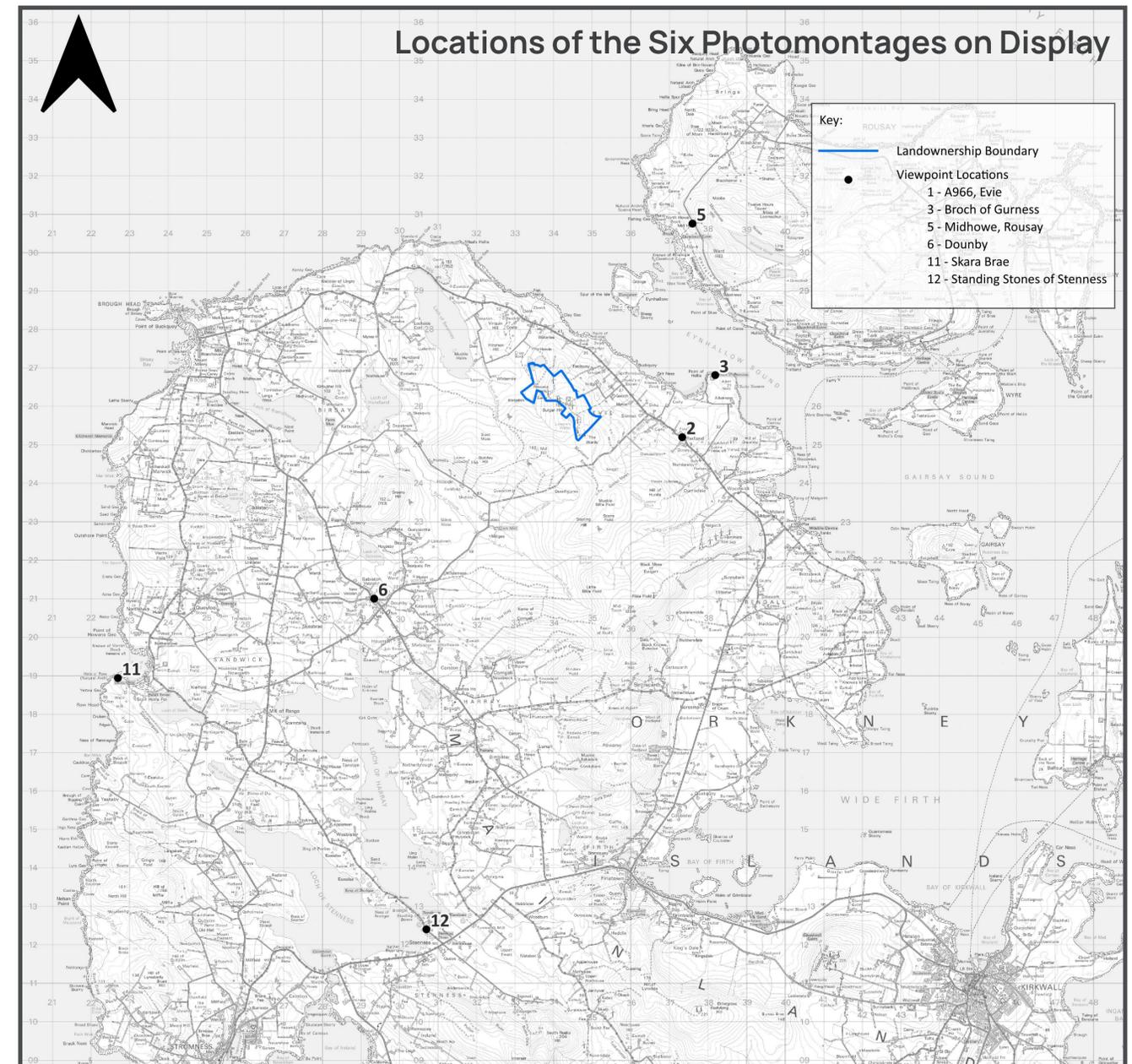
Since the previous exhibitions, further design work has been carried out in response to feedback and initial Landscape and Visual Impact Assessment (LVIA) findings. The assessment identified that **five turbines at 149.9m would provide a better fit with the surrounding landscape and result in reduced visual impact on nearby residential dwellings.**

The LVIA considers effects on landscape character, designated areas, and residential visual amenity, as well as views experienced by visitors and road users. Potential **cumulative effects with other existing and planned wind farms** within 45km of the Site are also being assessed.

As a result of the reduced turbine height, **no aviation lighting is required.**

The viewpoints assessed are shown on the Zone of Theoretical Visibility (ZTV) board. A selection of photomontages, prepared in line with NatureScot guidance, are displayed here today and illustrate how the Proposed Development could appear from six key locations.

These photomontages are intended to help illustrate how the repower may appear in the local landscape.



09 - Community Support Fund

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Based on the proposed generation capacity (25 - 30MW), it is anticipated that the fund will provide up to **£125,000 - £150,000 per year**, subject to the final installed capacity.

Following the previous events, local residents and community groups from Evie, Rendall and across Orkney have shared community-led ideas on how this fund could best support local priorities.

These suggestions reflect a strong focus on **addressing fuel poverty, improving wellbeing, and delivering lasting social and economic benefit for the community**. Some of the most popular ideas are presented below.



Education & Skills Pathways

Partnerships, grants, and support for schools and learning opportunities



Wellbeing & Recreation

Desire for additional walking tracks and improved access to outdoor spaces



Local Sports & Activities

Support for local sports and school clubs and community-led activities

Have your say!

If you have further suggestions, please add a sticky note or share your feedback using the details below.



10 - Next Steps

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Thank you for coming along to today's event. We hope that you have found it informative and have had an opportunity to find out more about the proposed repower of Burgar Hill and to ask questions of the project team.

We would be grateful if you could complete the available feedback form and return it to us. Please note comments to Burgar Hill Energy at this stage are not comments to the Local Planning Authority.

Once the planning application is submitted to the OIC, there will be a consultation period where members of the public will have an opportunity to formally make comments. This will be considered in the determination of the planning application. The timescales for submitting public comments will be advertised by the OIC.

These exhibition boards and a feedback form are also available on our website at www.burgarhillenergy.co.uk

We'd love to hear from you!

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* in line with statutory timelines
** dependent upon grid constraints.

