

# Hare Hill Solar Farm and Battery Energy Storage

Welcome to our public exhibition event to provide the local community with an update on the proposed Hare Hill Solar Farm and Battery Energy Storage Project.

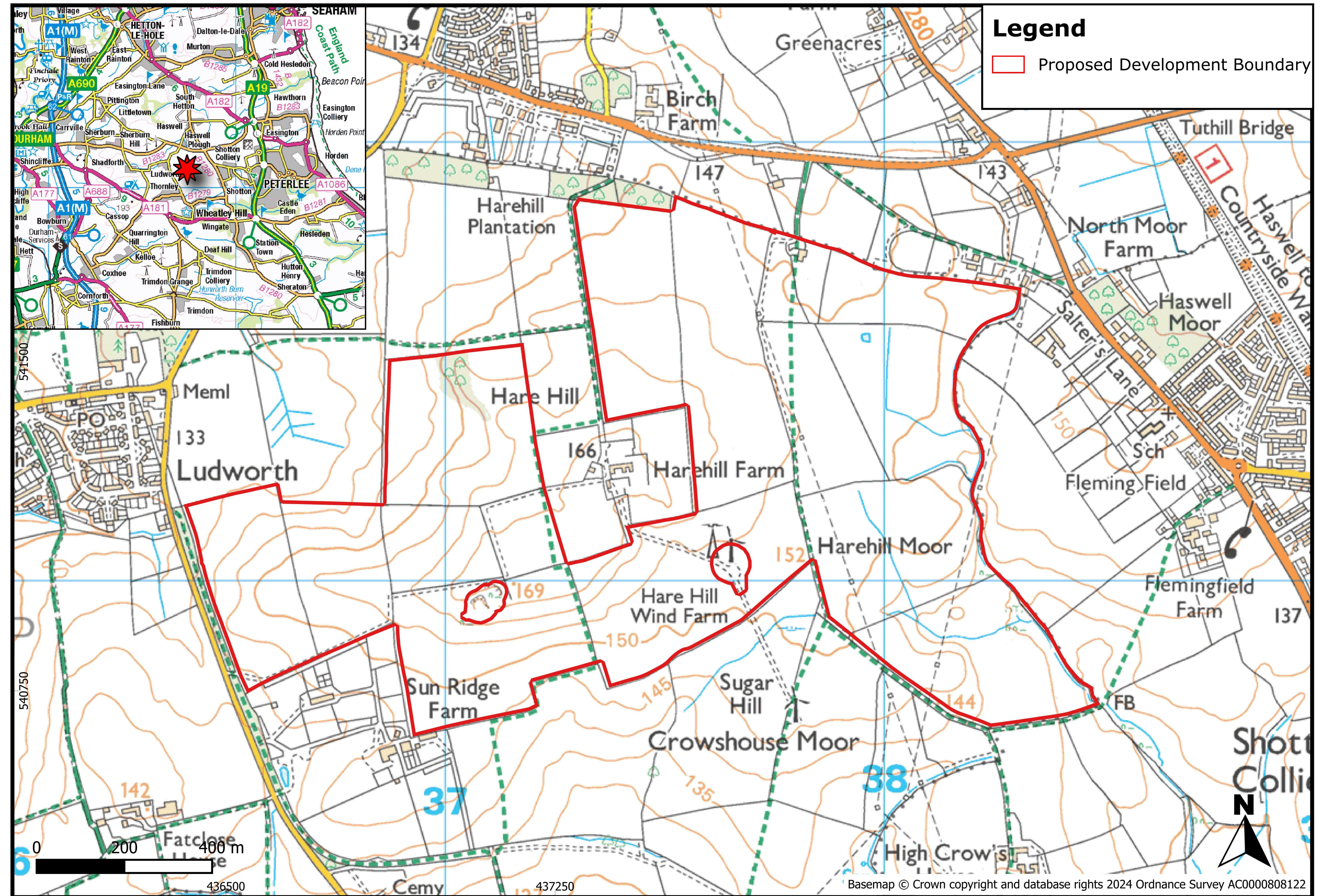
Locogen and Renewco Power are exploring the potential for a solar farm and battery energy storage development on farmland at Hare Hill Farm, centred between the former colliery sites and towns of Haswell Plough, Shotton Colliery and Ludworth, County Durham.

This public consultation is being held for you to:

- Learn more about various aspects of our proposal;
- Find out more about the results of the planning and environmental surveys completed to date;
- See visualisations of the solar farm and battery energy storage project from key viewpoints;
- Talk to our representatives here today about the scheme and to give your feedback on our proposals; and
- Find out more about the community benefit and suggest organisations who can support with this.

## Site Context

The site is on Grade 3b farmland which is non-prime agricultural land, and is currently used for sheep grazing and grassland. It is located on a low hill, within the colliery context of County Durham, and benefits from existing vegetation surrounding, and within a site that provides screening. Planning surveys, undertaken as part of the planning application, have not demonstrated significant effects or impacts upon the local environment. As such the site location has been chosen to integrate with the local environment and provide the benefits of renewable energy to the surrounding community.



Please take a few minutes to fill out our feedback form at [www.locogen.com/hare-hill-solar-project/](http://www.locogen.com/hare-hill-solar-project/). Paper copies of the feedback forms are available for you to take away today.

Comments made are not representations to the planning authority and when a planning application is lodged, there will be an opportunity to make representations to Durham County Council at that point.



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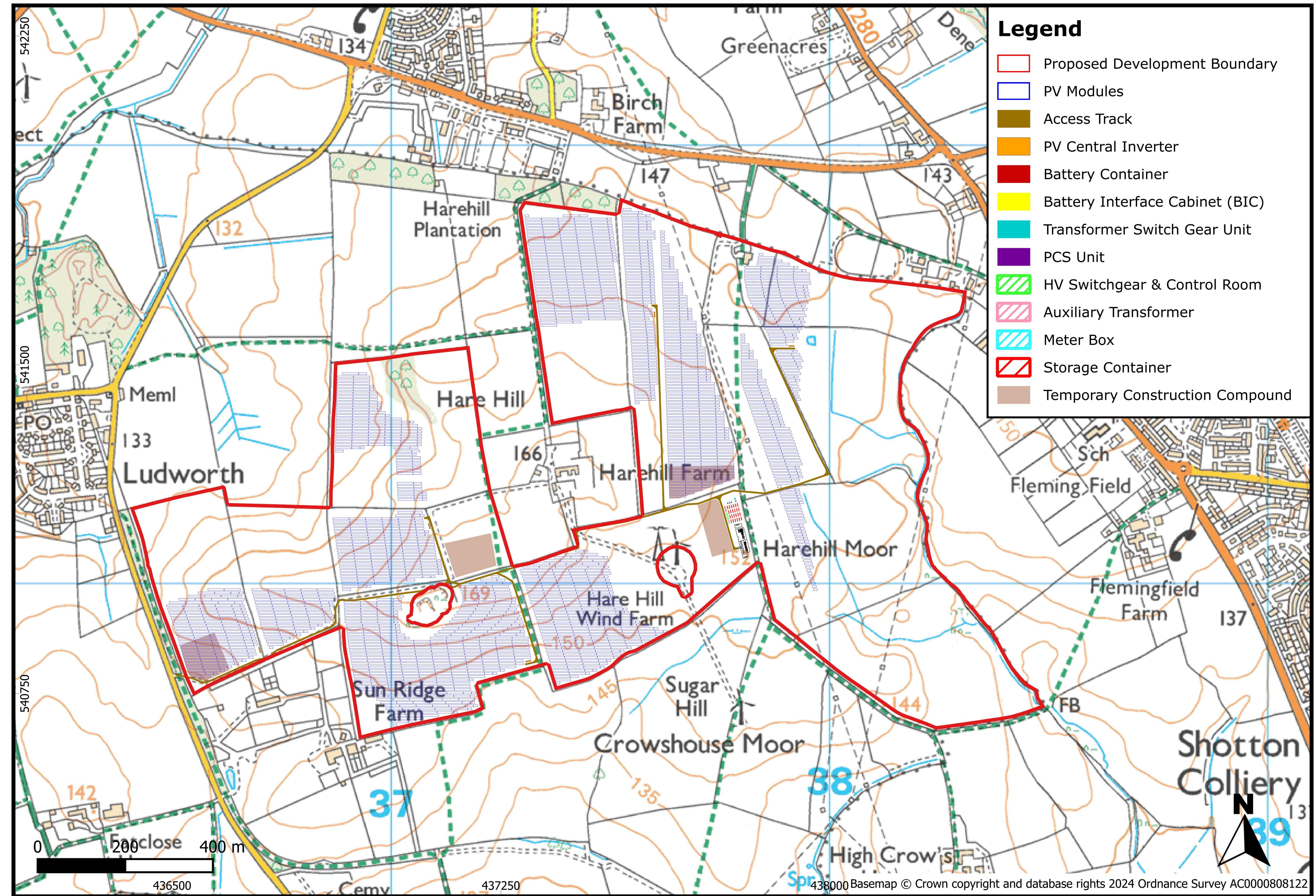
## The Proposal

Locogen and Renewco Power are planning to submit a planning application for a 31.5MWac solar farm with 10.35MWac embedded battery energy storage project on farmland at Hare Hill Farm.

The Proposed Development will:

- Generate 48.5GWh clean renewable electricity through solar panels per year;
- Comprise circa 80-90,000 solar panels mounted on racks and arranged in rows with gaps to ensure limited shading. The top of the panels would be around 3m off the ground and would face south;
- Be secured by a 2.4m high 'deer fence' and CCTV cameras around the perimeter;
- Accumulate the power that is generated through the panels at inverters to be sent to the onsite substation for final export to the grid;
- Supply power directly into the grid at the Peterlee West Substation, located off the A19 road;
- It is intended to continue to use the land for farming with sheep grazing under the solar panels; and
- Include biodiversity enhancements within the design, which will have positive/beneficial effects for the various wildlife species.

Planning permission will be sought for a 40-year period. On reaching the end of its operational life the proposed solar and battery energy storage development will be fully decommissioned and the site restored to its original state.



Proposed Layout Plan



Example Battery Storage Units



Example of solar farm within an agricultural setting



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## Local Policies

County Durham Council produced the County Durham Plan in 2020, which sets out the vision and objectives of the County up to 2035. One of the objectives of the Plan is to “Reduce the causes of climate change and support the transition to a low carbon economy by encouraging and enabling the use of low and zero carbon technologies, supporting the development of appropriate renewable energy sources and sustainable and active transport”.

This is supported by Policy 33 - Renewable and Low Carbon Energy, which states “Renewable and low carbon energy development in appropriate locations will be supported. In determining planning applications for such projects significant weight will be given to the achievement of wider social, environmental and economic benefits.”

## Planning Policy Guidance

In August 2023, the Planning Policy Guidance for Renewable and Low Carbon Energy was published. This states that, “Increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses. Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable.”

The Proposed Development would provide new renewable and low carbon energy infrastructure.

## National Targets

The Climate Change Act 2008 established long term statutory targets that reflect the UK’s contribution to the international commitments. The Climate Change Act, as amended in 2019, introduced the Net Zero target - a minimum of a 100% reduction in greenhouse gas emissions (compared to 1990 levels) in the UK by 2050. The Proposed Development would make a contribution towards the achievement of the 2050 target.

At a National level, the UK Committee on Climate Change is responsible for advising the government on the progress on tackling climate change. The Net Zero Report produced in May 2019 assessed the UK’s long term carbon emissions. It confirmed that current policy is not sufficient for existing targets, and that a net zero target would require a significant ramp up in supportive policy. It also commented that delivery must progress with much greater urgency and that the supply of low carbon power must continue to expand rapidly. The Proposed Development contributes towards that expansion.

## National Planning Policy Framework (NPPF)

The NPPF sets out the Government’s planning policies for England and how these should be applied. It is a material consideration in the determination of planning applications. It was published in 2012, and was revised in September 2023. The framework notes that the purpose of the planning system is to contribute to the achievement of sustainable development, and places a presumption in favour of sustainable development.

Paragraph 157 of NPPF states that “The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to support renewable and low carbon energy and associated infrastructure.” The Proposed Development would support this national planning policy aspiration.



Example of Solar Array



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## Planning Surveys

The planning application will include a series of detailed assessments of the potential impacts on the local environment. The survey requirements have been agreed in conjunction with Durham County Council via pre-application discussions, and have been carried out by the following specialist advisors:

Report	Specialist Advisor
Glint & Glare Assessment	Metrica Environmental Consulting
Noise Assessment	Metrica Environmental Consulting
Landscape & Visual Impact Assessment	Pegasus Group
Drainage & Hydrology Assessment	Ardent Engineering
Traffic & Transport Assessment	Ardent Engineering
Cultural Heritage Assessment	Locogen
Archaeological Study and Geophysical Survey	Archaeological Services, Durham University
Agricultural Land Classification Report	Roberts Environmental Limited
Socio-economic Assessment	MKA Economics
Ecological Impact Assessment	Locogen
Ornithological Survey	Birdwatch North East Ltd
Planning, Design & Access Statement	Locogen
Coal Mining and Phase 1 Contamination Report	Roberts Environmental Limited
Aviation Assessment	Aviatica



Solar farm in wildflower meadow

## Environmental Considerations

### Ecology

- Ecology works on site have included a Ecological Impact Assessment consisting of a habitat assessment and a protected species survey.
- The results of the surveys conclude that the dominant habitats within the Proposed Development area are of limited benefit to local ecology, largely due to current agricultural management.
- A draft Biodiversity Net Gain Assessment will be submitted, which will include measures to increase biodiversity on site including the enhancement of grasslands, hedgerows and woodland.
- Breeding bird surveys have been undertaken, and a Ornithology Impact Assessment will be submitted as part of the planning application, which will detail potential impacts, effects and proposed mitigation.

### Flood Risk

- A Drainage & Hydrology Assessment has been undertaken. This has established that the site is not predicted to be at risk of flooding from ground water.
- A drainage strategy will be implemented whereby surface water run-off from the construction compound will go into filter drains. Runoff will then be routed to soakaways surrounding the construction compound.

### Glint & Glare

- An independent Glint & Glare Assessment has been prepared by Metrica Environmental Consulting to consider the potential impacts on ground-based sensitive receptors and aviation receptors.
- The proposed PV panels will be dark in colour and incorporate an anti-reflective coating to maximise the light capture of solar cells.

### Noise

- Noise monitoring has been undertaken at the site to collect data on existing background noise levels at different locations at the site.
- Predicted operational noise levels have been assessed using acoustic modelling noise mapping software.
- The battery units and solar inverters have been located away from the dwellings to avoid potential noise issues at nearby sensitive receptors.
- The results show projected noise levels are within acceptable limits with no unacceptable adverse impacts predicted on nearby properties.
- Cumulative noise impact has also been taken account.

### Cultural Heritage

- The Cultural Heritage Assessment has established through consultation with Durham Archaeological Team there is potential for limited surviving remains of local-regional heritage value (medium sensitivity) within the Proposed Development site.
- The Proposed Development site is within an area rich in colliery and industrial heritage assets, with the Haswell Engine Colliery House Scheduled Monument located 381m north and the medieval Ludworth Tower located 784m west of the Proposed Development site. The site would have a low-medium impact on the setting of these assets, due to existing, localised residential screening, which prevents direct visibility.

### Fire & Safety

- All photovoltaic and battery energy storage systems will be compliant with relevant safety and operating standards for this type of equipment.
- There will also be fire detection and active suppression technology in each of the batteries containers to effectively manage this risk.
- Before going into operation, the site will have a full fire safety and management plan in place.



Sheep grazing by solar panels



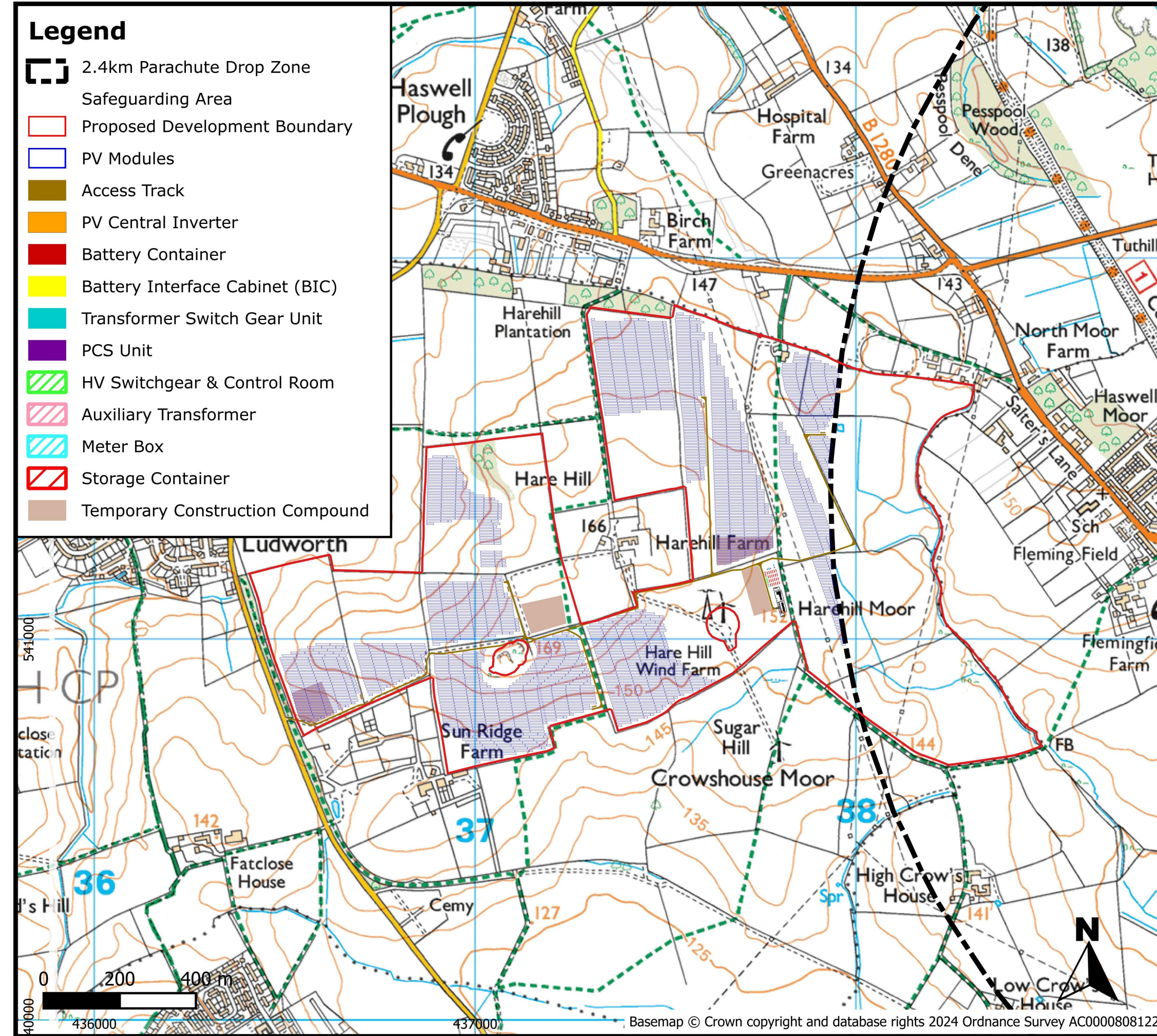
Bees on wildflower



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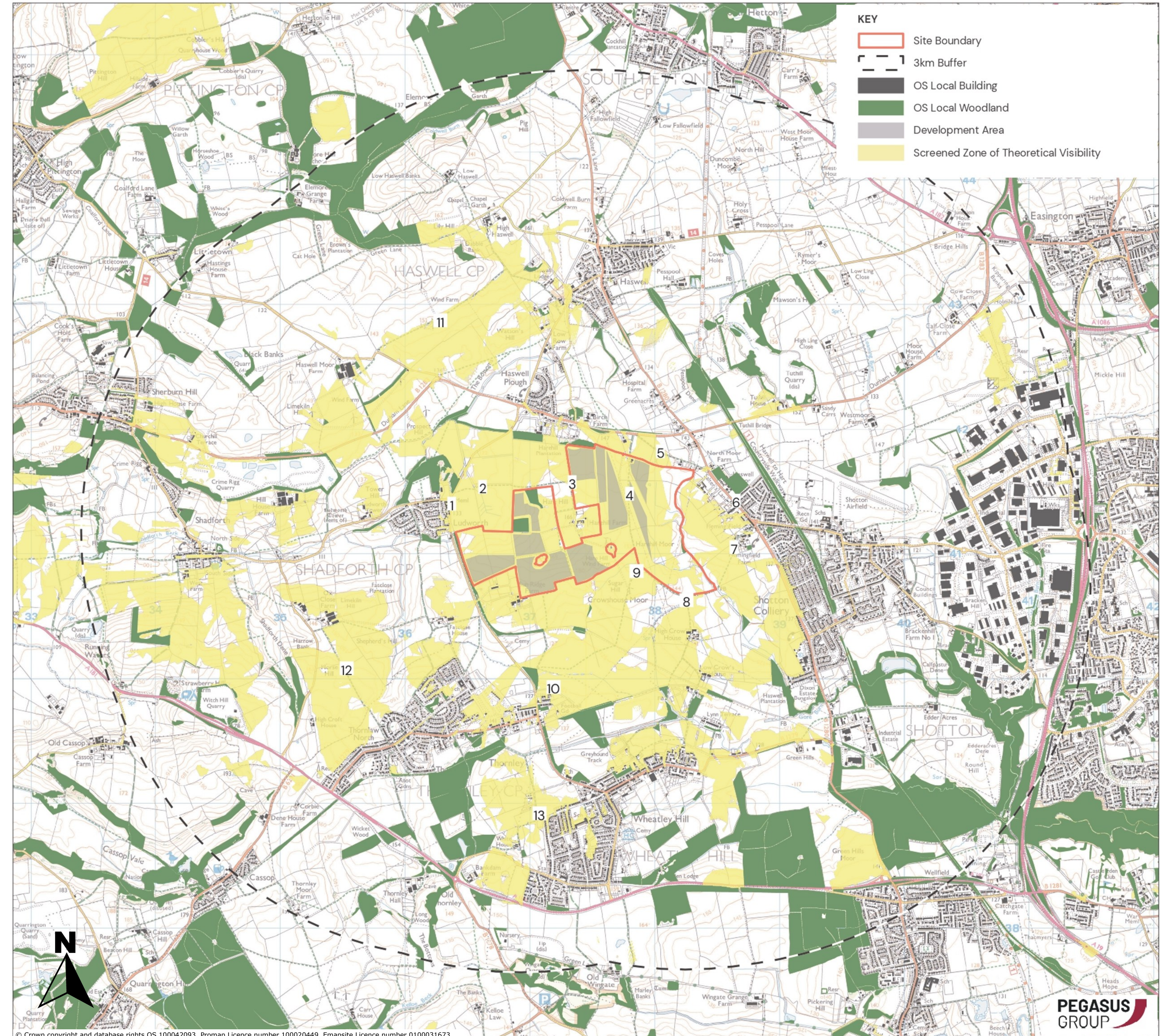
## Peterlee Parachute Drop Zones

The Proposed Development has ensured that no development will take place within the Peterlee Parachute Drop Zones as set out within the County Durham Plan.

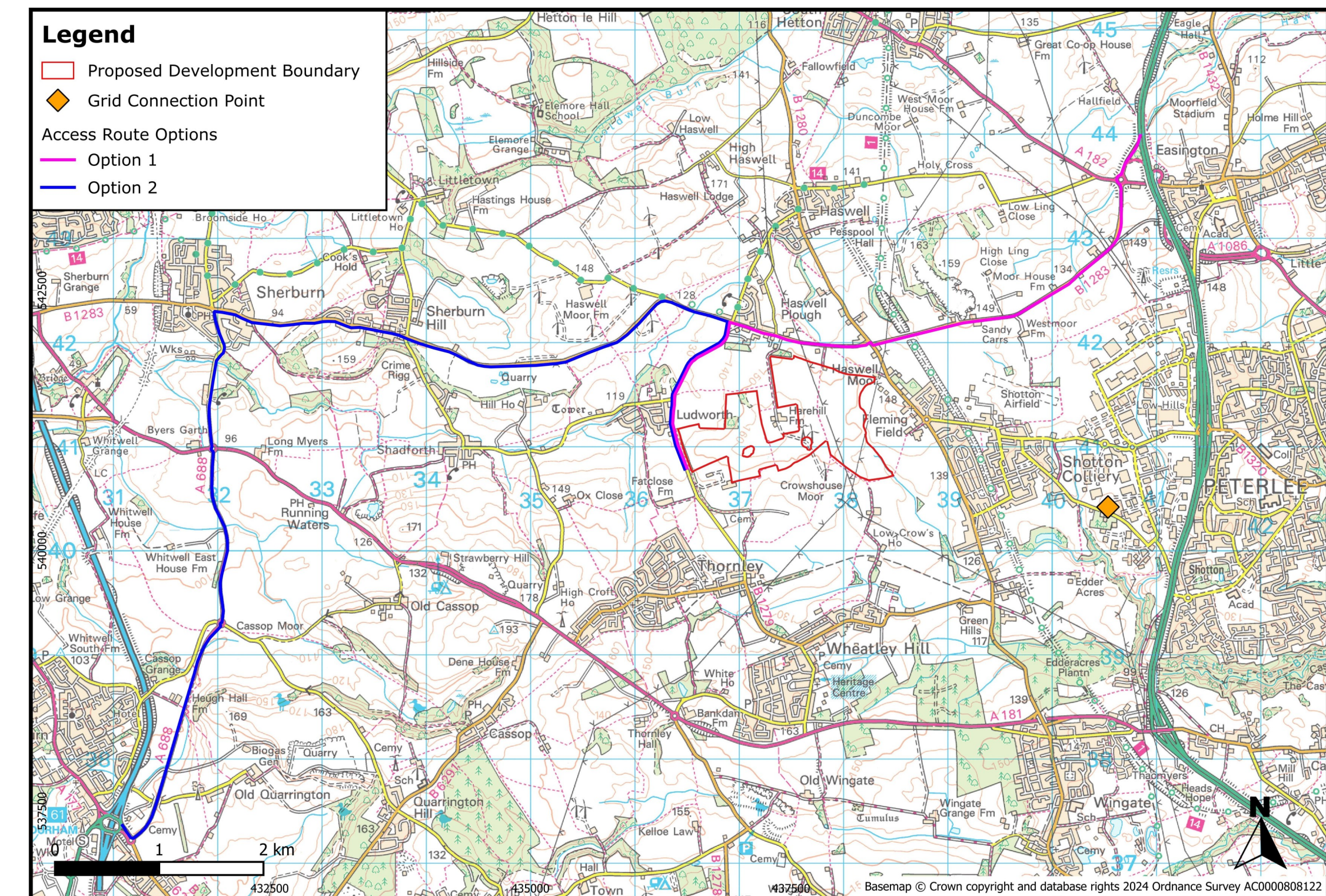


## Zone of Theoretical Visibility

Areas that are shaded have a theoretical visibility of the solar farm and battery energy storage. This map shows the location of the solar farm and battery energy storage and the viewpoints that have been used for an assessment of potential Landscape and Visual/Residential Amenity Impact.



## Grid Connection Point and Potential Transport Routes



Zone of Theoretical Visibility



# Hare Hill Solar Farm and Battery Energy Storage

## Visualisations of the Proposed Solar Farm and Battery Energy Storage

Visual representations of what the solar farm and battery energy storage would look like from select viewpoints around the site are shown here. The planning application will be supported by a Landscape and Visual Impact Assessment.

-  Visible Solar Deployment
-  Potential glimpsed views to solar arrays prior to establishment of mitigation planting

### Viewpoint 1



Part 1

Part 2

### Viewpoint 2



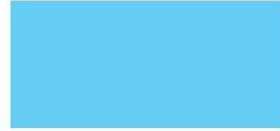

Part 1

Part 2

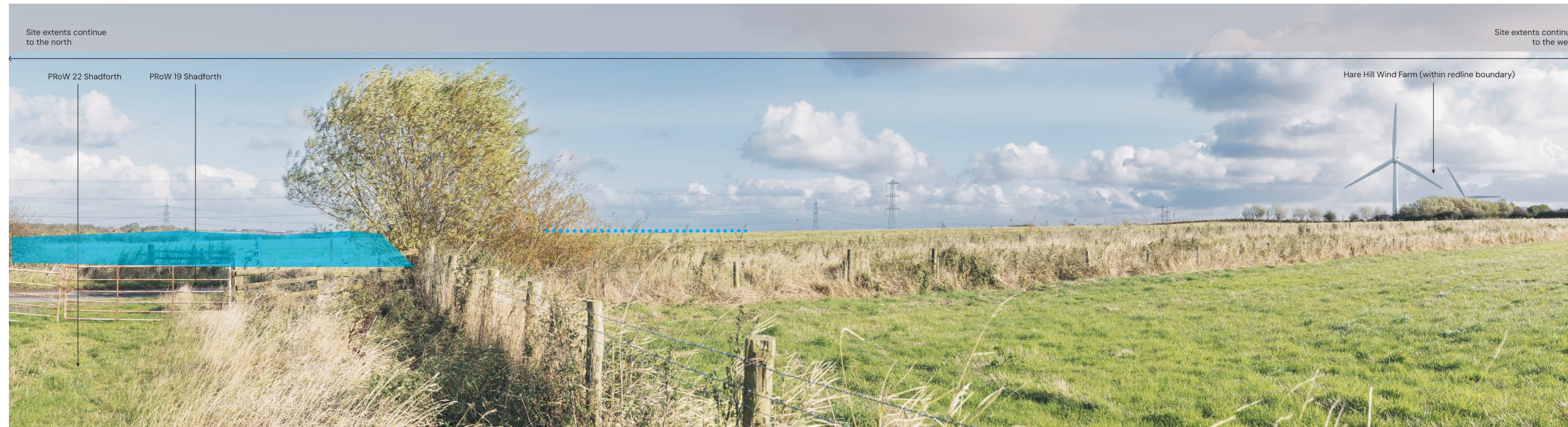


# Hare Hill Solar Farm and Battery Energy Storage

## Visualisations of the Proposed Solar Farm and Battery Energy Storage

-  Visible Solar Deployment
-  Potential glimpsed views to solar arrays prior to establishment of mitigation planting

### Viewpoint 3



Part 1



Part 2

### Viewpoint 5



Part 1



Part 2



# Hare Hill Solar Farm and Battery Energy Storage

## Community Benefits

We are offering an annual community benefit from the project at £400 per MWac of installed solar capacity. The site capacity is currently proposed as 31.5MWac. The associated community benefit fund could therefore be up to £12,600 per year. This would be index linked to inflation for 40 years.

We think it is only right that the community shape the community benefit package, so that it best meets local needs and wishes. Locogen and Renewco Power would welcome your feedback on potential local priorities and projects, where you would like to see this fund invested. Some ideas for ways this could be used are:

- Community energy cost subsidy towards renewable energy and insulation measures or fuel poverty.
- Contribution towards Community or local events, and environmental or heritage projects.
- Promoting care and support of vulnerable people, improving community safety.
- EV charging points installed within the local area.

Locogen and Renewco Power are keen to support the local community to get the most from the community benefit package.

### • Opportunities for investment include:

- Active Community;
- Entrepreneurial Community;
- Connected Community;
- Net Zero Community; or
- Children & Young people.

### • Contribution toward:

- Community facilities such as:
- Village Halls;
  - Services and rural transport;
  - Affordable housing; or
  - Community developments.



Ground-mounted solar panels



The Proposed Development will provide a wider socio-economic benefit to the local and national economy in the following respects:

- A total investment of over £40-45 million within the project;
- Opportunities for local businesses to support during construction in terms of groundwork, landscaping, civil engineering, and construction contracts;
- Direct inward investment to local retail and accommodation during the construction and operational phases of the project; and
- Additional business rates to the local council of over £2 million (based on 2024 prices) over the project lifespan.



# Hare Hill Solar Farm and Battery Energy Storage

## Biodiversity Enhancements

The Proposed Development has been designed to minimise and mitigate any potential impacts on sensitive local views. In addition to this, a landscape mitigation strategy will be implemented to allow existing hedgerows to grow higher and for any gaps in these rows to be filled in with further planting. Additional planting will strengthen the existing site boundaries and further increase natural screening.

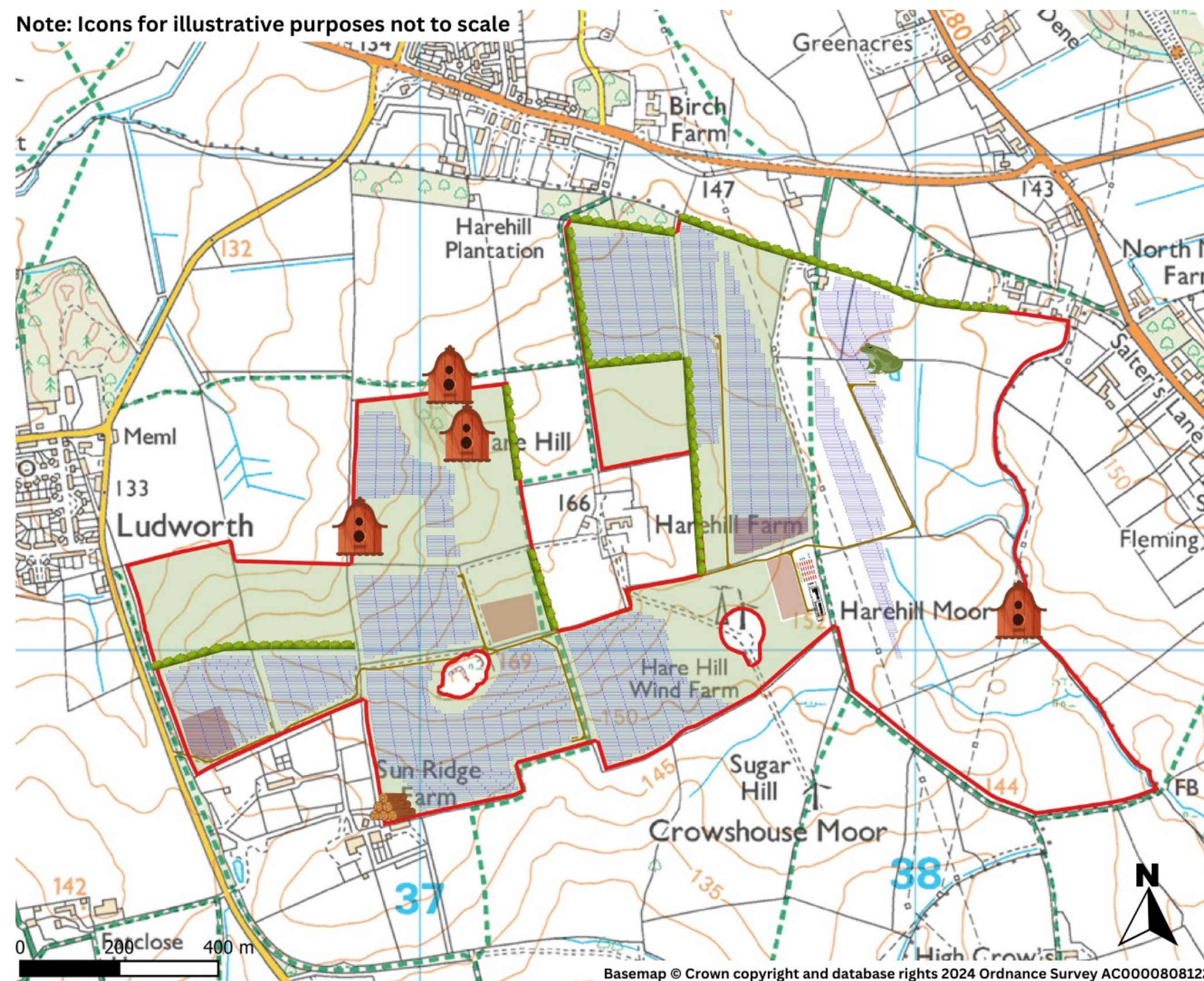
The Proposed Development has been specifically designed to avoid and, as far as possible, reduce potential landscape and visual impacts. Given the relatively low heights of the Proposed Development (i.e. no more than 3m) it is anticipated that topography and vegetation will provide significant natural screening of the surrounding area for this location, with improvement of roadside hedges and planting of new hedges.

## Next Steps

Today's event is part of the public consultation being undertaken by Locogen and Renewco Power to provide information and collect comments and feedback on draft proposals for the Hare Hill Solar Farm and Battery Energy Storage Project. Your comments will help improve the quality of our planning submission and inform the proposals for a community benefit fund.

The project website [www.locogen.com/hare-hill-solar-project](http://www.locogen.com/hare-hill-solar-project) will be updated with the latest information about our proposals as they develop.

We anticipate submitting a planning application to Durham County Council before the end of 2024. To give local people sufficient time to give us their thoughts and feedback, we have set a deadline of **Sunday 8th December** for receipt of completed feedback forms.



- Note:** Icons for illustrative purposes not to scale
- Key**
- Enhanced/New Hedgerows**  
Retention, creation and enhancement of native species rich hedgerows across site. New hedgerows, filling in gaps in existing hedgerows.
  - Species Rich Grassland**  
Seeding of arable with a species-rich grass mix, to enhance the site for biodiversity and facilitate management through sheep grazing.
  - Habitat for invertebrates**  
Dedicated invertebrate habitats, such as log and brush piles will be situated in appropriate areas of site. In turn this should see an increase in other species utilising the site including birds, reptiles and hedgehogs.
  - Bird & Bat Boxes**  
Creation of new nesting and roosting opportunities for bird & bat species that are known to utilise the wider area.
  - Herptile Refugia**  
Creation of refugia for amphibians and reptiles within the site.

Biodiversity Enhancements



Example of ground-mounted solar panels

## Indicative Project Timeline

