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THANK YOU FOR JOINING US TODAY

Thank you for coming along to Harmony Energy's Pre-Application Consultation regarding the prospective Major Application at land northwest of Jamesfield Garden Centre, Abernethy, Perth and Kinross.

We value your input and want to ensure you feel informed and confident about the benefits and safety of our projects.

We invite any questions you may have.

If you are here to read and learn about our plans, but would rather speak to us outside of the event, please reach out to us or visit the Scott Hobbs Planning website:

Email: planning@harmonyenergy.co.uk

Phone: 01423 314 117

Website: www.scotthobbsplanning.com/consultations/abernethy

In everything we do, we are committed to:

Sustainability – developing clean energy facilities that contribute to a sustainable energy system whilst delivering Biodiversity Net Gain on site and ensuring materials are recycled at end of life.

Collaboration – working with landowners, local communities and other partners to deliver benefits for all.

Safety – ensuring the safety of our projects by using proven technology alongside design and construction excellence, as well as insuring all our projects.

Innovation – working with global partners to ensure we are using the latest technologies that maximise sustainable performance.

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AWARD WINNING DEVELOPERS

We are a Yorkshire-based business committed to generating and storing renewable energy to help power a sustainable future. Founded in 2010, Harmony Energy is a leader in utility-scale BESS.

We've developed, energised and operated 17 BESS projects totalling 634 MW in the UK, and are proud to have a global pipeline of over 14 GW BESS and Solar projects in development.

Our proven track record has resulted in numerous awards including Developer of the Year, Best ESG Communications, Green Leaders and multiple projects of the year.

Harmony Energy is proud to have already energised a BESS in close proximity to the application site, which is operational today:

BESS: POWERING PEOPLE & PLANET

BESS captures surplus power and stores it for when demand is high. When the wind drops or the sun isn't shining, stored energy is fed back into the grid. This keeps power flowing reliably and enables renewable energy to thrive. Therefore, reducing the need for fossil fuels and foreign imports, which in turn, cuts carbon emissions, enhances energy security, lowers costs, reduces wind curtailment and helps prevent blackouts.

But that's not all. The sector is creating hundreds of thousands of skilled jobs in construction, engineering and maintenance. It is driving innovation and supporting both local and national economies.

- **Home-grown, clean energy**
- **Economic & job growth**
- **Built without taxpayer money**
- **Biodiversity net gains**
- **Energy security**
- **Community fund & support**
- **Prevent blackouts**
- **Reduce wind curtailment**
- **Cut CO2 emissions**
- **Award-winning developers**

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PROPOSED DEVELOPMENT IN BRIEF

This Pre-Application Consultation is held in relation to the proposed development for a 49.9MW Battery Energy Storage System (BESS) on land northwest of Jamesfield Garden Centre, Abernethy, Perth and Kinross.

KEY FACTS

01 **BESS Location and Grid Connection:** The site has been chosen because it is immediately next to the proposed Abernethy Substation. This makes it more efficient to connect the batteries to the electricity network and reduces energy losses.

02 **Track Record:** Harmony Energy has developed and operated 17 multi-award winning sites across the UK, totalling over 600MW. There are at least 130 BESS operating successfully in the UK, with thousands more worldwide.

03 **Energy Capacity:** As a 49.9MW BESS, the scheme could power up to 99,800 homes for two hours. This is based on Ofgem's current estimate for annual domestic electricity consumption figures for a typical UK home.

04 **Health and Safety:** There has been no reported issues with toxic gases or emissions from BESS. There is a plethora of statutory health & safety, electrical and fire safety legislation that governs the working practices in the UK.

05 **End of Life and Land Reinstatement:** At the end of its operational life (40 years), the land will be reinstated to its former use.

06 **Design and Screening:** It will be designed to the highest quality with substantial landscaping proposed to ensure the site is sufficiently screened. It is not anticipated that there will be any detrimental impact to the residential amenity of any of the nearby receptors. Noise Impact Assessments will be undertaken to confirm this.

07 **Community Benefit:** Community Wealth Building, in line with Scotland's planning policies will be explored with the local planning authority to maximise economic growth for the local and regional area.

08 **Strict Regulatory Oversight:** All BESS developments in the UK are subject to rigorous planning, environmental and safety regulations, including fire protection measures - designed to ensure safe operation over the lifetime of the site.

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WIDER CONTEXT LANDSCAPE PLAN

The preferred site location is, at this time, predominantly led by the prevailing topography minimising visibility as well as being directly adjacent to the substation to the south.

The location further seeks to avoid areas of flood risk, sensitive features, such as burns and hedgerows wherever possible.

To ensure the development is appropriate for the site, a full suite of technical environmental assessments have been instructed including:

- Battery Safety Management Plan
- Heritage Impact Assessment
- Flood and Drainage Assessment
- Ecology Surveys and Enhancement
- Transport and Construction Management Plan
- Noise Assessment
- Landscape and Visual Impact
- Archaeology/Heritage Assessment

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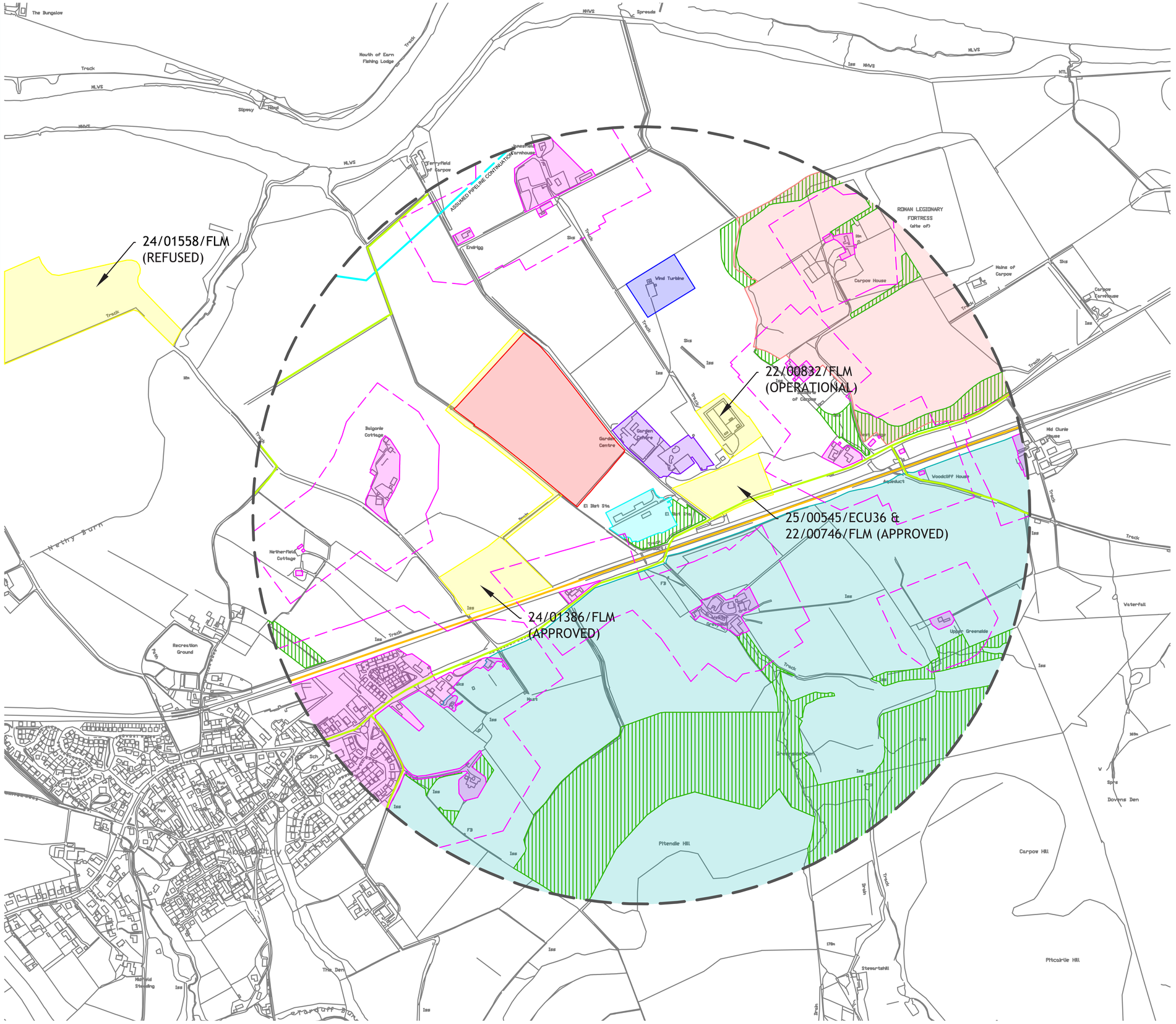
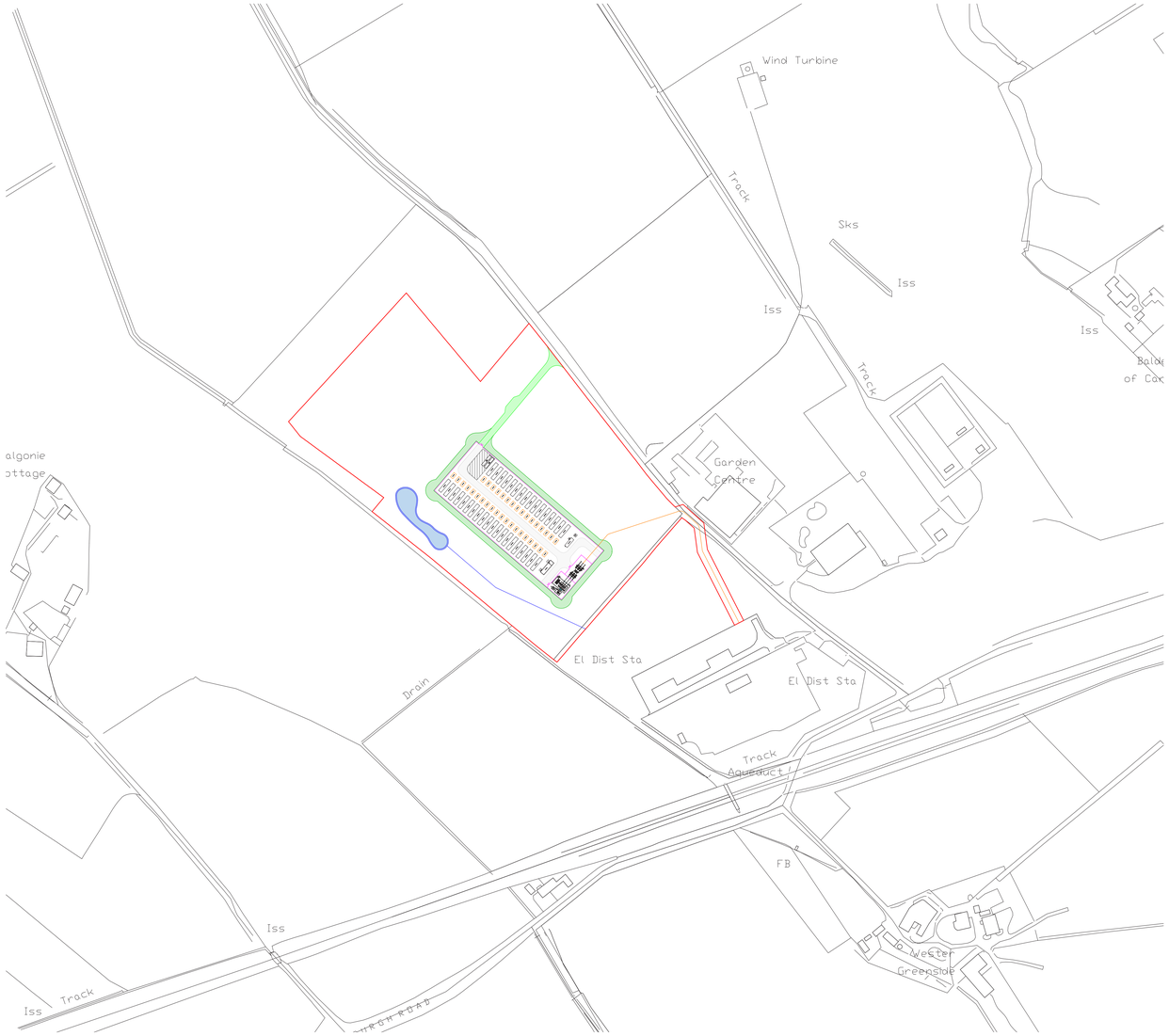
CONSTRAINTS PLAN

- ABERNATHY SUBSTATION LOCATION
- APPLICATION SITE AND LAND IN SAME OWNERSHIP
- OTHER BESS PLANNING APPLICATIONS
- WIND TURBINE
- EXISTING BUILT UP AREA AND RESIDENTIAL PROPERTIES
- JAMESFIELD GARDEN CENTRE
- SCHEDULED ANCIENT MONUMENT (ROMAN LEGIONARY FORTRESS)
- OCHIL HILLS LOCAL LANDSCAPE AREA
- EXISTING TREES / WOODLAND
- 1km RADIUS SURROUNDING ABERNATHY SUBSTATION
- 100m BUFFER ZONE AROUND RESIDENTIAL AREAS
- TRAIN LINE
- HIGH PRESSURE GAS PIPELINE
- ADOPTED CORE FOOTPATH



THE PROPOSED DESIGN OPTIONS

DESIGN OPTION 1



- INDICATIVE SUDs BASIN
- INTERNAL BESS ROAD
- EXTERNAL EMERGENCY ACCESS GRASSCRETE TRACK
- SITE ACCESS
- STORAGE AREA
- PLANNING BOUNDARY
- 2.4m HIGH PALISADE FENCE
- INDICATIVE DRAINAGE OUTFALL PIPE
- INDICATIVE CABLE ROUTE

DESIGN OPTION 2

- SUDs BASIN
- INTERNAL BESS ROAD
- EXTERNAL EMERGENCY ACCESS GRASSCRETE TRACK
- SITE ACCESS
- STORAGE AREA
- PLANNING BOUNDARY
- 2.4m HIGH PALISADE FENCE

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ZONE OF THEORETICAL VISIBILITY

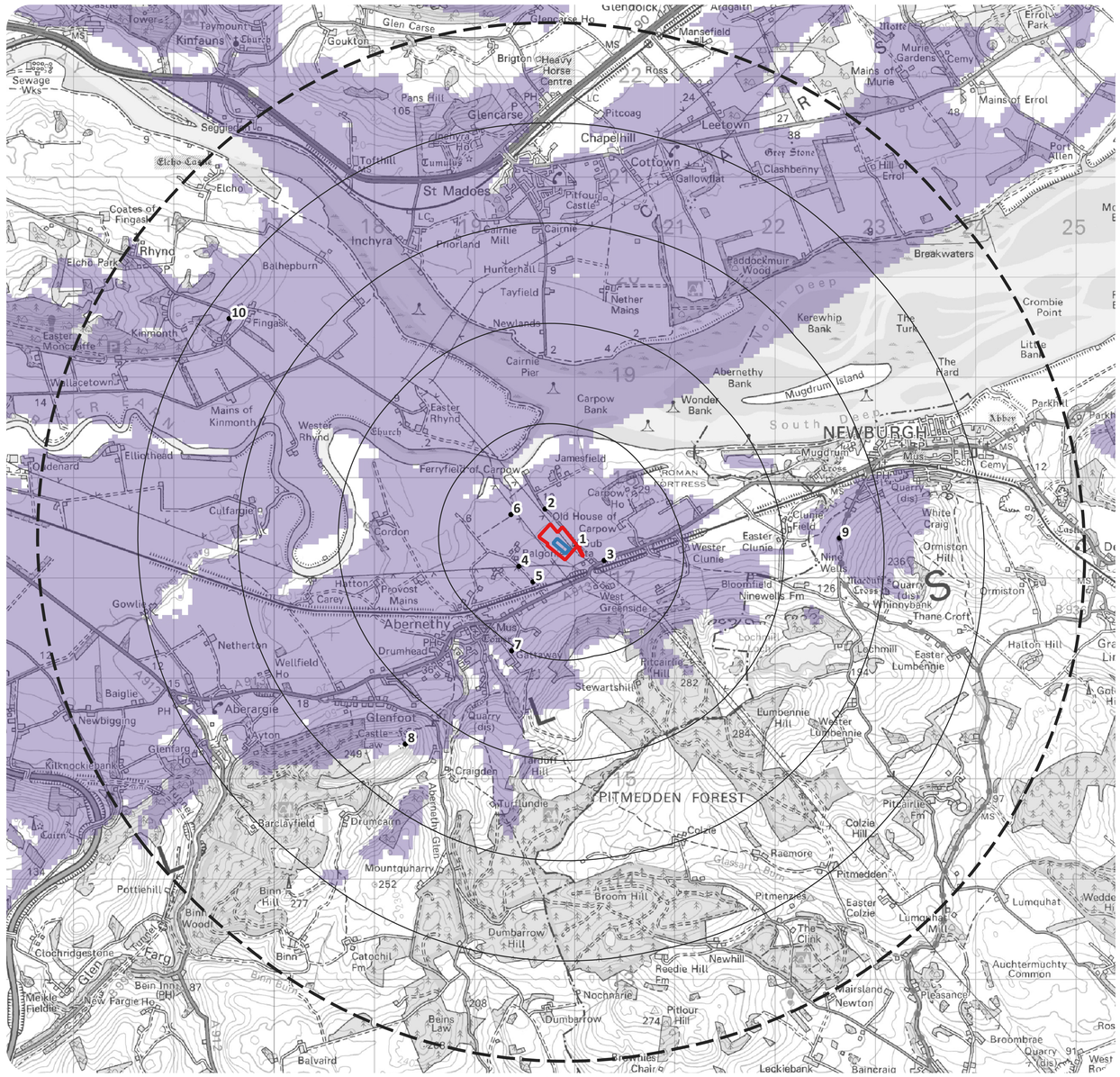
Transport: The site is accessed by an unnamed road located along the east boundary which also serves the Jamesfield Garden Centre, farm shop and restaurant. It is proposed to use this route during construction and operation period. A Construction Traffic Management Plan (CTMP) will be submitted with a future planning application which will consider and the impact on local road network, along with cumulative effects of other development. It is anticipated that construction traffic will be routed to the site via A912 and A913 but detailed assessment will underpin a finalisation of this route.

Flooding: The site is not identified to be within a flood risk zone as per the SEPA Flood Maps. The proposed access and site layout avoids any potential areas of surface water flooding and includes a SUDS basin to the west of the proposed BESS development, which will collect all surface water. A Flood Risk Assessment and Drainage Strategy will be submitted with the planning application.

Ecology: The field is currently grass, grazed by sheep and there are no crops in the field. A preliminary ecology study conducted in August 2025 found that the majority of the site is of a low ecological value with a small amount of non-native invasive plant species and mature trees on the margins. The initial study has identified that there is no potential for red squirrels, pine martens or beavers, and low to no potential for amphibians and reptiles. A further survey will be conducted in winter for potential bat roosts, badger, otter and water vole presence. A Ecological Impact Assessment will be submitted with the planning application.

Landscape and Visual Impact: A Landscape and Visual Impact Assessment (LVIA) will consider potential impacts of the proposed BESS on the character of the area, surrounding landscape, and the existing views. The Designations Figure identifies surrounding landscape character areas and landscape planning designations. The LVIA will consider visual impacts on these designations and local receptors along with cumulative impacts. A Zone of Theoretical Visibility map (ZTV) was used to identify areas where the Proposed BESS would be visible. 10 viewpoints (VPs) have been identified and will be used to assess any potential impacts on the character the surrounding landscape and views of receptors.

Any significant of notable effects will be mitigated through a planting strategy using different types of planting, which will aim to screen views of the Proposed Development, and help integrate the Proposed Development into the existing landscape character. Different types of planting includes wildflower meadow around the edges of the site, native trees and shrubs which will help the Proposed Development integrate into the existing landscape character, while also aiding with biodiversity, and evergreen species can aid with year round screening.



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VIEWPOINT 1: JAMESFIELD GARDEN CENTRE
VIEWPOINT 2: JAMESFIELD ROAD

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VIEWPOINT 8: CASTLE LAW
VIEWPOINT 10: FINGASK FARM

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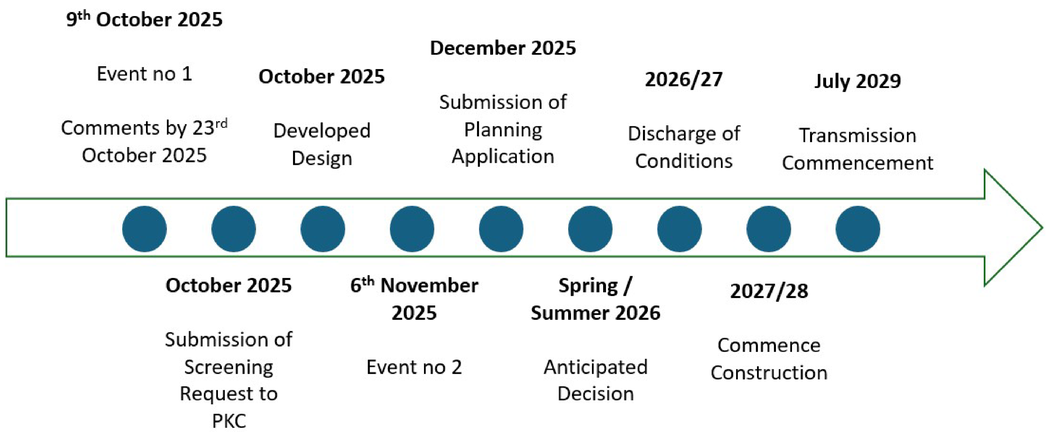
PLANNING POLICY CONTEXT

The National Planning Framework 4 (NPF 4) was approved by Scottish Government in February 2023 and sets out the overarching policy aims for development.

NPF 4 states that "When considering all development proposals significant weight will be given to the global climate and nature crises." The proposal will contribute towards achieving net zero targets. The BESS development is defined by the NPF4 as "Essential Infrastructure".



"Flexible technologies like batteries will form part of the UK's smarter electricity grid, supporting the integration of more low-carbon power, heat and transport technologies, which it is estimated could save the UK energy system up to £40 billion by 2050." (Gov.uk)

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SAFETY AND FIRE PREVENTION

Harmony Energy has a strong, award-winning track record of safely developing, owning and operating BESS sites.

- We only work with reputable suppliers who have established health and safety records, and we exclusively use Lithium Iron Phosphate (LFP) technology, which is widely regarded as one of the safest battery types available. We do not use older technologies such as Lithium Nickel Manganese Cobalt.
- LFP systems have undergone rigorous fire testing to international standards and have shown no explosion risk. All systems are fitted with pressure vents and spark suppression equipment as standard.
- Our sites are monitored remotely 24/7 and include internal heat probes and perimeter thermal cameras to detect any temperature changes. If heat is detected, the system will raise an alert and automatically shut down.
- Fire testing has also shown that fires do not spread to neighbouring battery units. Each site is subject to a strict inspection and maintenance schedule to ensure continued safe and reliable operation.
- Battery storage sites would not be financeable or insurable if they were considered to pose a significant safety risk. More than 130 large-scale battery systems are already operating safely in the UK, with thousands more in place across the world.
- To meet the UK's net zero targets, we will need to deploy nine times more energy storage than is currently available. Battery systems like ours are essential to securing the future energy supply.

THE FACTS ON FIRE AND BESS

The UK Government's Department for Energy Security and Net Zero regularly shares data through its Renewable Energy Planning Database (REPD). From the latest figures (April 2025), here's what we know about BESS in the UK:

1. **Battery storage is growing fast:** As of April 2025, there are around 132 operational battery storage sites across the country. On top of that, 96 more are under construction and a further 834 have planning permission and are awaiting build. Only 8 have ever been decommissioned.
2. **We're storing more clean energy than ever:** The BESS sites already in operation provide about 2.6 GW of electricity storage. Once those with planning approval are built, this will more than double to 5.4 GW.
3. **They've been running for almost two decades:** Since 2006, UK battery sites have clocked up an estimated 700 years of combined operational experience – or 240,000 days, if you prefer to think of it that way.
4. **Incidents are incredibly rare:** There have only been minimal battery fires in the UK that required a response from the fire service – one in Liverpool in 2020, one in Aberdeenshire and another in East Tilbury. That's incidents across an estimated 6 million hours of operation, giving a failure rate of around 0.00000014 per hour – significantly lower than many other types of infrastructure, such as petrol stations.
5. **No injuries or environmental damage:** Importantly, no one in the UK has ever been killed or injured in a BESS incident, and there's been no harm to third parties or the environment caused by a fire in the UK.

Engagement with fire services

We host fire services on all our operational sites to learn about the technology and what measures to undertake in the event of an emergency response. Fire risk is extremely low and LFP technology is extremely safe – it is the same chemistry that is in your phones and laptops!