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PLANNING DESIGN AND ACCESS STATEMENT

PROPOSED BATTERY ENERGY STORAGE SYSTEM (BESS)
FACILITY

LAND TO THE EAST OF SHORE TOP FARM, KEARSLEY ROAD,
RADCLIFFE, M26 1FA

TAIYO POWER & STORAGE LIMITED

APRIL 2025

Planning Design and Access Statement		
Taiyo Power & Storage Ltd.	Radcliffe BESS	T016-02

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1 INTRODUCTION

1.1 Context

- 1.1.1 This planning application seeks planning permission for a 11 MW Battery Energy Storage System (BESS) development on land to the east of Shore Top Farm, Kearsley Road, Radcliffe, M26 1FA (the 'Site').
- 1.1.2 The proposed development is for the installation of a Battery Energy Storage System (BESS) facility, comprising battery containers, boundary fencing, an access track and other associated infrastructure.
- 1.1.3 Once operational, the BESS will enable energy from renewable generation sources such as solar and wind to be stored and released as required.
- 1.1.4 The Site lies within the administrative boundary of Bury Metropolitan Borough Council (BMBC), a unitary authority.
- 1.1.5 The proposal is hereafter referred to as the 'Proposed Development.'
- 1.1.6 The submission includes the following information, documents and drawings:

Documents

- Completed Forms and Certificates;
- Planning Design and Access Statement, Revision 1 April 2025 (this document)
- Landscape and Visual Appraisal, Revision 2, April 2025
- Preliminary Ecological Appraisal, Revision 4, April 2025
- Otter Survey Report, Revision 3, April 2025
- Invasive Non-native Species Survey, Revision 3, April 2025
- Biodiversity Net Gain (BNG) Assessment, Revision 3, April 2025
- Statutory Biodiversity Metric Condition Assessments Radcliffe BESS March 2025
- Statutory Biodiversity Metric Calculation Tool Radcliffe BESS 24 April 2025
- Noise Assessment, Revision 4, April 2025
- Flood Risk Assessment and Drainage Strategy, April 2025
- Construction Traffic Management Plan, Issue 1, March 2025 (submitted in 5 parts due to file size)
- Historic Environment Desk Based Assessment, April 2025
- Phase I Geo-Environmental Assessment, Revision B, April 2025
- Arboricultural Impact Assessment, Revision A, April 2025

- Mineral Resource Assessment, Revision 1, April 2025
- Site Selection Assessment, March 2025
- Statement of Community Involvement, Revision 1, April 2025

Drawings

- 121-10002 Rev 014: Proposed Site Layout Compound Area
- 121-10003 Rev 014: Proposed Site Layout
- 121-10005 Rev 001: Palisade Fence and CCTV
- 121-10007 Rev 002: BESS Cross Section
- 121-10008 Rev 003: Access Track
- 121-10009 Rev 002: Proposed Elevations and Floor Plan Customer Substation
- 121-10009 Rev 002: Proposed Elevations and Floor Plan Storage Container
- 121-10010 Rev 002: Proposed Elevations and Floor Plan BESS Battery Container
- 121-10011 Rev 002: Transformer Station
- 121-10014 Rev 14: Location Plan
- 121-10024 Rev 014: Proposed Site Layout With Construction Compound Area
- 121-100014 Rev 002: Proposed Elevations and Floor Plan DNO Substation
- Water Tank Details
- 1120099-ADAS-XX-XX-DR-L-8000 Rev 02 Landscape Masterplan
- GPP1011-001 – Topographical Survey
- GPP1011-002 – Topographical Survey
- GPP1011-003 – Topographical Survey

1.2 The Application Site and its Setting

- 1.2.1 The application site is approximately 1.39ha in size and is formed by an irregular-shaped parcel of land situated within a green wedge between Radcliffe, Kearsley, and Outwood. The site occupies a gently sloping area of land elevated at around 80m AOD.
- 1.2.2 The site is located in an area of open countryside approximately 850m south west of Radcliffe and 5.5km to the southwest of Bury.
- 1.2.3 Vehicular access to the site, as well as an emergency access point, is located off the A667, which connects to the wider road network serving Radcliffe and Kearsley.

- 1.2.4 A National Grid substation is located about 70m to the north of the site. Open grazing land lies to the south and west.
- 1.2.5 Immediately east of the site is dense woodland containing footpaths and a disused railway.
- 1.2.6 The nearest property is a farmhouse about 240m to the south of the main development area with a row of dwellings on Wood Street some 320 m to the south.
- 1.2.7 The Site is within Flood Zone 1 (a low overall risk of flooding).
- 1.2.8 The Site is Grade 4 (Poor) agricultural land.

Constraints

- 1.2.9 Two low voltage overhead electricity lines cross the northwestern part of the site.
- 1.2.10 The site falls within a Minerals Safeguarding Area (MSA).

1.3 Local Area Designations

- 1.3.1 The site lies within the Green Belt.
- 1.3.2 There are no national ecological designations on or adjacent to the proposed site, however, the site lies 20m west of a locally designated Wildlife Corridor.
- 1.3.3 The nearest designation is Ashclough SSSI about 1.1km to the northwest.
- 1.3.4 There are no designated heritage assets on or immediately adjacent to the site. The nearest registered assets within the wider area are:
- Water Powered Beam Pump – Grade II, 840m to the north west
 - Outwood Viaduct – Grade II, 930m to the north east.

1.4 Planning History

- 1.4.1 A search of the Council's Public Access System does not reveal any planning history for the Site or land adjoining.

- 1.4.2 The nearby electricity substation benefits from a Lawful Development Certificate for installation of a replacement grid transformer (Ref: 70611).

2 BATTERY ENERGY STORAGE SYSTEMS

2.1 Introduction

- 2.1.1 A Battery Energy Storage System ('BESS') is comprised of rechargeable batteries that convert electrochemical energy to electrical energy, and vice versa, as required.
- 2.1.2 They serve as local resilience in the energy network by charging at the times of the day when power is surplus on the network and discharging when the network requires power.
- 2.1.3 The aging electricity distribution system itself was not designed to handle intermittent generation such as wind and solar. The challenges this creates are significant, and without interventions such as the installation of BESS facilities like the one proposed, interruptions to power supply are inevitable.
- 2.1.4 The National Grid (NG) uses a BESS as a 'balancing service,' assisting the operation of the grid in balancing electrical frequency at times of system stress.

2.2 Attributes of a Battery Storage Site

- 2.2.1 When seeking to secure a potential Site for a BESS facility, a number of factors need to be considered. Broadly, these can be divided into:
 - a) the technical attributes of the Site – whether it holds the ability to connect to the energy distribution network to store and discharge energy; and
 - b) the quality of the land itself - both its intrinsic and contextual ability to host a BESS facility.

Technical Attributes

- 2.2.2 Location is important when selecting a site that may provide services to the local and national grid. The closer the site is to the point of connection at a District Network Operator (DNO) or NG substation, the easier and more efficient it is to connect it to the electricity network.

Nationally

- 2.2.3 Any BESS facility would be more advantageous to the network if it is physically close to an electrical substation (the point of connection into the local distribution network). More importantly, it needs to be close to a substation that has spare export and import capacity. This means space on the connection for power to be exported into the distribution network, as well as imported from the network to store excess

generated energy when necessary. The electricity grid system is a valuable resource, and it is important to use it efficiently. Therefore, proximity to a substation is a sustainable approach when selecting a site.

Regionally

- 2.2.4 Within the UK electricity network, there are many Distribution Network Operators ('DNO's), who transport electricity from the grid to the end user.
- 2.2.5 These DNOs independently manage electricity distribution in an area, each with their own accountability for making sure the regional infrastructure is fit for purpose. The DNO for the Southeast is Northern Powergrid.

Attributes of the Land

- 2.2.6 The attributes of the land itself often impacts the viability of a BESS project and dictates whether the owners can operate the facility in the way that the national and local networks require. More specifically:
- Legal covenants governing land use: Land must be free of legal covenants that would prohibit its use as a BESS facility. For example, covenants that relate to the specific 'Use Class' of the land, or protecting Site infrastructure, would render the Site unsuitable.
 - Planning considerations: BESS facilities are generally discrete, compact installations. They have no emissions at the point of use and when sited sensitively the effects of noise on the environment are negligible. Permanent lighting is not required, and traffic volumes, once operational are low.
- 2.2.7 Nonetheless, proposals should comply with local and national planning policy as well as meeting a number of planning related criteria:
- a) They should not be located in close proximity to residential properties;
 - b) The effect of noise should be considered and mitigated;
 - c) The access to the site should be suitable;
 - d) Visual impact should not be significant for the location proposed; and
 - e) Other site-specific factors should be considered (e.g. ecology, landscape & flood risk).

- 2.2.8 In respect of commercial arrangements even where land is identified as being well suited for BESS, sometimes landowners would have other aspirations for their Site, and restrictive covenants may exist, or the site is simply not available.

2.3 Benefits of Battery Storage Facilities

- 2.3.1 The benefits of BESS facilities are widespread and can be realised at both local and national levels.

Local Benefits of BESS

- 2.3.2 Storing electricity locally allows for a focused management of the network, benefitting local residents and businesses:

- Provision of locally produced power during times of stress reduces the risk of power outages to the immediate locality.
- Having a storage facility embedded in the local network means the area is less likely to experience power shortages and blackouts caused by the loss of inertia created by the increased input from renewable generation on the network.
- BESS facilities reduce demand on the national network as a whole, which in turn makes the local network less volatile.

- 2.3.3 Deficits in national electricity generation can be avoided or tempered by providing power locally:

- Local energy storage avoids the use of the wider power network, resulting in savings on usage charges. These savings may be reflected in overall lower prices for customers in the region.
- Excess frequency variations in the area can be instantly corrected, protecting vital local infrastructure from damage.
- Storage and discharge of power near to the point of use reduces power line transmission losses that are experienced when power is generated centrally. This helps to reduce CO₂ emissions further.

National Benefits of BESS

- 2.3.4 BESS facilities counter the effects of the more volatile power supply, which has been caused by an increase in solar and wind power generation. BESS facilities therefore support the UK's transition away from fossil fuels to reliable renewable power generation, thus supporting CO₂ emission reduction targets.
- 2.3.5 Battery units are clean at the point of use, and do not produce emissions such as those from coal or oil-fired power stations, or even the more efficient gas-powered FlexGen facilities.
- 2.3.6 Reducing the distances that electricity travels by installing local facilities lessens losses as it travels through cables. This minimises electricity wastage, further helping to reduce CO₂ emissions.

Commercial Benefits to Consumers and Businesses

- 2.3.7 Security of electricity supply is an essential requirement for any stable economy. BESS facilities support this by being able to respond quickly when more generation is required.
- 2.3.8 At times of national system imbalance, the alternative to increasing supply is for large businesses to radically reduce usage at short notice. The ability for a BESS to quickly discharge in response to increasing supply enables businesses to continue production through periods when the electricity network is under stress.

Enabling NG to Meet its Regulatory Obligations

- 2.3.9 National Grid (NG) is mandated by the UK Government to provide what is known as a 'balancing service' whereby they must ensure that the network has the ability to deal with any fluctuations in the electricity demand.
- 2.3.40 During the peak times of national electricity demand - generally between 16:00 and 18:00 in the winter months - BESS facilities are able to discharge to alleviate stress on the network, helping NG to meet its mandated obligation.

3 CLIMATE CHANGE AND UK ENERGY STRATEGY

3.1 National Policy

- 3.1.1 In 2019 a National Climate Emergency was declared by the UK Parliament, and in June 2019 the Climate Change Act 2008 (2050 Target Amendment) Order 2019 was approved committing the UK to achieve a 100% reduction in greenhouse gases (compared to 1990 levels) by 2050. This legally binding target is known as Net Zero by 2050.
- 3.1.2 The Committee on Climate Change (CCC) (an independent advisor to the Government on these matters) advised at the time that to achieve Net Zero by 2050 would require a major and urgent investment in new clean energy technologies (including renewables) and increased deployment of battery energy storage facilities.
- 3.1.3 The UK is therefore currently undergoing a rapid change in the way in which energy is generated. Large scale, centralised fossil fuel and older nuclear power stations are being phased out and new smaller scale, decentralised renewable energy generation is taking its place. The last coal fired power stations are due to be phased out in the UK no later than 2025 and, with the exception of Sizewell B and Hinkley Point C, all of the existing nuclear power plants are due to have ceased generating by the end of 2030.
- 3.1.4 The share of zero carbon power sources in Britain's electricity mix has grown from less than 20% in 2010 (versus over 75% from fossil fuels) to 51% in 2023 (with carbon sources contributing only 33%). Across 2023, zero-carbon electricity sources played a vital role in the generation mix, with over 50% of electricity coming from these sources in January, July, and October. Electricity from wind turbines has continued to grow in its contribution to the operation of the national network and accounted for 29.4% of electricity generation.
- 3.1.5 The Government's Ten Point Plan for a Green Industrial Revolution (November 2020) confirms how critical growing the quantities of renewable energy is to achieving Net Zero, and the Government's Energy White Paper (December 2020) firmly supports increasing large-scale off-shore wind and solar energy generation as an acceptable source to tackle climate change:

"A low cost, net zero consistent system is likely to be composed predominantly of wind and solar. But ensuring the system is reliable means intermittent renewables need to be complemented by technologies which provide power, or reduce demand, when the wind is not blowing, or the sun does not shine. Today this includes nuclear, gas with carbon capture and storage and flexibility provided by batteries .."

- 3.1.6 The Net Zero Strategy: Build Back Greener (October 2021) commits the UK to fully decarbonise its power system by 2035 (subject to security of supply) stating *“Our power system would consist of abundant, cheap British renewables, cutting edge new nuclear power stations and be underpinned by flexibility including storage, gas with CCS, hydrogen and ensure reliable power is always there at the flick of a switch”*.
- 3.1.7 The caveat regarding energy security in the Net Zero Strategy is well placed. Since then, the Government has published The British Energy Security Strategy (April 2022), which responds to the worldwide events of the Covid pandemic, Russia’s invasion of Ukraine and soaring European gas and coal prices by setting out a strategy that would deliver *“a flow of energy that is affordable, clean and above all, secure”*. Generating more renewable energy is promoted as a key priority including, for example, delivering 50GW by 2030 (increased from the 40GW proposed in the Ten Point Plan) and a five-fold increase in solar energy deployment by 2035 alongside more battery storage. As part of accelerating the shift to low carbon electricity, the Government is *“Encouraging all forms of flexibility with sufficient large-scale, long-duration electricity storage to balance the overall system by developing appropriate policy to enable investment.”*
- 3.1.8 *“Powering Up Britain,”* published in March 2023, is the Government’s latest blueprint for the future of energy in the UK. By bringing together the Energy Security Plan, and Net Zero Growth Plan, it explains how the UK would diversify, decarbonise and domesticate energy production by investing in renewables and nuclear, to power Britain.
- 3.1.10 Some of the relevant aims/objectives of the document are set out below:
- *“We have an ambition to fully decarbonise the power system by 2035, subject to security of supply, and we would also need to grow and develop energy sources beyond the power sector. Moving to a power system that relies primarily on low carbon technologies is a crucial step towards delivering, cheaper, cleaner, domestic energy and addressing our underlying vulnerability to international fossil fuel prices”* (page 19).
 - *“moving towards energy independence through a potential doubling of Britain’s electricity generation capacity by the late 2030”* (page 15).
 - *The transition to net zero would require action across the whole economy fuelled by rapid deployment of low carbon electricity. To thrive, the UK would need to support the growth of new sectors and help others adapt”* (page 16).
- 3.1.11 In respect of planning the document says:

“An effective planning system is needed to support both large scale nationally significant infrastructure like offshore wind, nuclear power and CCUS, and support local decisions on renewable and low carbon energy. That is why in order to support our net zero and energy security goals the government is committed to ensuring faster, fairer and more effective planning regimes, including through changes to the National Planning Policy Framework - generally for local plan-making and decisions, the energy National Policy Statements - specifically for nationally significant decisions, and Electricity Act planning” (page 23).

3.1.12 The use of BESS facilities to support the NG would clearly help to achieve these Government goals.

Bury Council Climate Change Emergency

3.1.13 Bury Council declared a climate emergency and set a target to be carbon neutral by 2038. In response the Council created a Climate Action Strategy and a linked Climate Action Plan to reduce emission, improve sustainability, improve air quality as well as the health and wellbeing of communities.

3.1.14 The term 'carbon neutral' allows for small amounts of carbon emissions to remain. These remaining emissions will be offset by carrying out various activities such as planting trees or generating renewable energy. In respect of energy supply, the Council is committed to generating and sourcing all local energy needs from zero-carbon renewable sources by 2038.

3.1.15 A BESS facility assists in strengthening energy resilience.

3.2 Electricity Supply

3.2.1 Electricity generation in the UK has undergone major and permanent changes over the last decade. While the increase in the proportion of power generation through renewable technologies plays an essential role in reducing carbon emissions, it also poses challenges to security of the electricity supply in the UK.

3.2.2 Specifically, the intermittent nature of renewable sources (particularly wind and solar) makes the balancing of electricity supply and demand more challenging. While most are aware of the risk of ‘the lights going out’ if demand outweighs supply, a lesser-known risk is how greater fluctuations in supply levels can damage local electricity distribution network equipment, impacting the availability of supply at a local level.

3.2.3 As such, the UK’s electricity supply can be characterised as facing two important issues:

- Capacity Provision – ensuring that there is sufficient power generated nationally to meet the needs of UK consumers, especially during the peak demand times; and

- Quality of Supply – ensuring generation levels are stable enough to avoid damage to the local electricity distribution network equipment, to avoid supply issues at local levels.

Capacity Provision

- 3.2.4 It is the job of the NG to ensure electricity generation supply meets consumer demand at all times. This happens on a minute-by-minute basis and any failure to maintain the equilibrium would result in power cuts to homes, industry and essential infrastructure throughout the country. On the one hand, this means there needs to be responsive power available when consumer demand peaks and varies. On the other, it means there must be the availability of power for supply to meet a constant equilibrium with consumer demand.
- 3.2.5 Historically, when the UK produced most of its power using fossil fuel generation, it matched supply and demand by turning up or down generation from oil, coal and gas fire power stations as consumption fluctuated. Replacing fossil fuelled facilities with renewable sourced generation has been significant in reducing carbon emissions, but in the process the Energy Infrastructure Operators (EIO) have lost the responsiveness that oil, coal and gas facilities had.
- 3.2.6 This challenge has been addressed by the Government and the EIOs stimulating (through the regulated markets) the widespread development of electricity energy storage, such as the BESS facility being proposed here. These zero carbon facilities are essential to the UK's transition away from fossil fuels; allowing renewable power to be collected when it is plentiful (e.g. on a windy day, or a sunny afternoon) and utilised when consumers actually want to use it.

3.3 Quality of Supply

- 3.3.1 The electricity distribution system in the UK was designed to distribute electricity generated in large fossil fuel power stations, with predictable and stable production levels. This resulted in an electricity supply with a predictable, stable frequency.
- 3.3.2 The necessary shift to renewable power generation has degraded this stability owing to its dependence on natural and therefore variable resources, which results in an unpredictable supply frequency.
- 3.3.3 The electricity distribution networks were not designed to cope with variations in frequency, which can damage equipment at a local distribution level, and ultimately could result in a regional black out.

- 3.3.4 Renewable energy generation methods also suffer from a lack of inbuilt inertia. Inertia is the mechanical energy in a system created by the residual spinning momentum after the driving force has stopped. In this instance, the rotational energy contained in the very large flywheels that are an integral part of large scale, boiler-based generation (either traditional fossil fuel or fission based nuclear power). These flywheels continue to spin for a significant period of time after the production of the driving force (typically steam) has stopped, producing electricity as they do. Renewable technology typically lacks these flywheels, and so a system that has a large amount of renewable generation has significantly less inertia.
- 3.3.5 To help fill this gap, a short term and fast acting release of energy onto the system is needed. Local BESS facilities provide this by discharging stored energy into the grid network when supply frequency is unstable.

Battery Energy Storage

- 3.3.6 Electricity storage is already being deployed across the UK and there is currently around 3GW of storage on the system, the vast majority of which is pumped hydro-electric. National Grid's Future Energy Scenarios (FES) predicts that between 12-29GW of electricity storage could be deployed by 2050.
- 3.3.7 In June 2016, the Energy and Climate Change Committee published their Low Carbon Network Infrastructure Report. This recommended the rapid roll-out of battery storage in order to support the development of a low carbon economy. The Proposed Development would contribute to this national programme to provide cost effective, flexible energy during peak electricity periods. It would also provide local energy security as, unlike national energy generation, it would feed electricity into the local electricity network at the point of need thereby ensuring that the lights stay on for local residents and businesses.
- 3.3.8 The Government has now introduced legislation to clarify the status of electricity storage in the 1989 Electricity Act. This clarifies that electricity storage is a distinct subset of generation and defines the storage as energy that was converted from electricity and is stored for the purpose of its future reversion into electricity.
- 3.3.9 Formalising electricity storage as a distinct subset of generation removes current ambiguities and provides long term clarity and certainty over its treatment within the existing frameworks (e.g. planning and licensing) and possible future frameworks. This would ensure continuity with the current treatment of electricity storage and allow flexibility for treating storage differently to other forms of generation where it is appropriate to do so. This measure would facilitate the deployment of electricity storage.

4 PROPOSED DEVELOPMENT

4.1 Introduction

- 4.1.1 This Planning Application seeks permission for the construction and operation of a BESS facility to provide support services to the National Grid ('NG') during times where the electricity network is under stress.
- 4.1.2 The description of development, as shown on the application forms is:
- "Proposed construction, operation and decommissioning of a Battery Energy Storage System (BESS) facility and associated infrastructure."*
- 4.1.3 The Proposed Development would not benefit from any Government subsidies or renewable energy grants and would be independently financed.
- 4.1.4 The proposal is for the construction of a BESS facility, with a proposed total installed capacity of 11MW. The proposal would involve creating a temporary access for construction from Wood Street across grazing land to the main development area where a temporary construction compound would be created. Both the access and the compound would be removed post construction.
- 4.1.5 Access for maintenance, during operation of the facility, would be to the south west, via Yew tree Farm to Radcliffe Road.
- 4.1.6 The Proposed Development would also require associated infrastructure that would allow the power to be imported from and exported into the grid.
- 4.1.7 The proposal also includes the cable route connecting the BESS site and substation to the north.
- 4.1.8 The proposal will be designed to minimise and mitigate any impact on the surrounding landscape and character of the area and will incorporate biodiversity enhancements into the scheme. The main development parcel will accommodate enhancements which will include species rich grassland and a specific planting scheme around the compound containing native plants and hedgerow.

4.2 Design Flexibility

- 4.2.1 It is important to note that construction work on the Proposed Development, would not commence until a final investment decision has been made by the Applicant and a contractor appointed. Following the award of the contract, the appointed contractor would carry out a number of detailed studies to inform

the technology selection for the Proposed Development and also to optimise its layout and design before starting work at the Site.

4.2.2 It follows that it has not been possible for the Applicant to fix all of the design details of the Proposed Development at this stage. The Applicant has therefore sought to incorporate sufficient design flexibility. This relates to the dimensions and layout of structures forming part of the Proposed Development, including the precise layout of the Site.

4.2.3 However, in order to ensure a robust assessment of the likely environmental effects of the Proposed Development, the assessments undertaken, and submitted as part of the planning application, have adopted similar principles to the 'Rochdale Envelope.'

4.2.4 This approach involved assessing the maximum parameters for the elements where flexibility is required.

4.3 Detailed Description

4.3.1 The Proposed Development would comprise the following infrastructure:

- 13 battery containers measuring 3.1m high x 6.1m long and 2.6m wide;
- 2 x Transformer stations (including 2 inverter units), measuring 2.3m high x 12.4m long x 7.1m wide;
- Customer switchroom inside a single container structure measuring 3.1m high x 6.1m long x 2.4m wide;
- Storage container measuring 2.8m high x 6.25m long x 2.4m wide;
- DNO substation building measuring 3.0m high x 3.8m long and 3.3m wide;
- Internal access roads and infrastructure;
- 2.4m high palisade fencing (Dark Green RAL 6005) that forms an internal boundary, securing the development;
- CCTV (3m high);
- Fire water storage tank measuring 10.19m diameter x 3.04m high, and
- Mitigation planting between the Site boundaries and fencing.

4.3.2 Operationally, on instruction by the National Grid, the BESS facility would be required to:

- Initiate discharge of its full power capacity within a very short period of time <1 second);
- Provide full power output for 2 hours;
- Have the ability to provide support to NG all days of the week but would be running mostly during high demand/supply days, at a minimum of three days a week.

4.3.3 There would be no site wide use of external artificial lighting as part of the proposed development only PIR on electrical buildings. CCTV columns are located along the perimeter fence line at regular points.

4.3.4 There would be no lighting at night other than when maintenance is required.

4.4 Construction Programme

4.4.1 The construction of the Proposed Development would take approximately 5 months and would involve the creation of a Site access, tracks, service trenches, fencing, CCTV and gates. A construction compound would be created on Site.

4.4.2 Most of the work on Site would involve the installation of containerised systems, made off Site and transported to Site by HGV and small vehicles and placed into position.

4.4.3 Construction would take place during the following hours:

- Monday – Friday 07:00-19:00; and
- Saturday – 08:00-13:00.

4.4.4 No construction work would take place on Sundays or Bank Holidays.

4.4.5 Deliveries will also be required to conform to these operational times. Where possible, deliveries will be scheduled outside of the typical network peak hours of 08:00 - 09:00 and 17:00 - 18:00, which will ultimately minimise the temporary impact on the local highway.

4.4.6 The construction phase is estimated to take place over a period of 20 weeks (5months).

4.4.7 The Construction Traffic Management Plan (CTMP) accompanying the application detail the traffic movements associated with the development.

4.4.8 In summary, the site is forecast to require 329 vehicles making deliveries during the temporary construction period of 20 weeks. Of these 329 deliveries, it has been advised by the Applicant that only 17 of these deliveries (34 trips) will be undertaken by a 16.5m articulated vehicle, with the remaining

deliveries to be undertaken on smaller rigid truck vehicles. Based on the information set out in Appendix N of the CTMP, the site will attract the following across the 20-week period, on-average:

- a) Weeks 1 3 4: An average of 4 HGV trips per day
- b) Weeks 4 3 8: An average of 10 HGV trips per day
- c) Weeks 8 3 12: An average of 8 HGV trips per day
- d) Weeks 12 3 16: An average of 2 HGV trips per day
- e) Weeks 16 3 20: An average of 2 HGV trips per day

4.4.9 In addition to delivery vehicle trips, it is forecast that there will a maximum of 15 vehicles per day associated with construction workers, therefore resulting in 30 two-way vehicle trips per day during the temporary construction period, over a 26-working day month. These vehicles will be a mixture of vans and cars.

4.4.10 Over the construction period, the site will attract a maximum of 32-40 trips per day including deliveries and construction workers, for a period of up to 20-week (5 months).

4.5 Operation and Long-Term Management

4.5.1 The only vehicles required to attend the Site when the facility is operational would be those associated with security and maintenance. This is anticipated to be no greater than 2 Light Goods Vehicle (LGV) visits per month. There are no HGV movements associated with the operational activities at the Site.

4.5.2 The facility would be monitored 24/7 by an off-Site security team through installed CCTV.

4.5.3 During normal operation, there would be no permanent staff as the plant is operated remotely. However, engineers would visit the Site periodically to carry out checks and undertake general maintenance.

4.6 Employment

4.6.1 There would be direct employment benefits during construction, as well as indirect benefits through supply chains.

4.6.2 Employment opportunities would be afforded to:

- Mechanical Engineers;
- Electrical Engineers;
- Accounts Staff;
- Workshop Staff;
- Senior Management;
- Landscape Maintenance Staff;

- Buyers;
- Sales Staff;
- Health and Safety Officers; and
- Security Staff.

4.7 Site Drainage

- 4.7.1 A Flood Risk Assessment and Drainage Strategy accompanies the application. The surface water drainage strategy for the Proposed Development seeks to provide a sustainable and integrated surface water management scheme for the whole Application Site and aims to ensure no increase in downstream flood risk by managing discharges from the Proposed Development to the local water environment in a controlled manner.
- 4.7.2 The drainage strategy will consist of an infiltration drain connecting to an attenuation structure to the northwest outside the main battery storage compound. The attenuation structure will be designed to hold a volume of 41.0m³. As the transformers will hold a volume of oil, this feature will be bunded and the drainage from here will lead to a Class 1 full retention separator.
- 4.7.3 The SuDS features will be implemented during the early construction phase of the Proposed Development and will be planted with vegetation to protect against soil erosion. They will be maintained throughout the lifespan of the Proposed Development, generally in accordance with the recommendations in the appropriate guidance.

4.8 Landscape Planting

- 4.8.1 A Landscape Masterplan is included in the Landscape and Visual Appraisal accompanying the application (see Appendix 6). The landscape proposals seek to enhance the Site boundaries with additional tree and hedgerow planting and a grassland mix to promote biodiversity on the other undeveloped parts of the site.

4.9 Safety

- 4.9.1 All of the battery containers would be fitted with integral safety feature. This includes a 24/7 control and monitoring and early warning system. This ensures that any abnormal battery conditions or other operational abnormalities are detected. The safety system enables the affected elements to be separately controlled or shut down to provide the opportunity for the Site maintenance team to assess and rectify the abnormality.

- 4.9.2 Each container would contain temperature, pressure, vapour and smoke detection devices and would be fitted with an automated fire suppression system.
- 4.9.1 Provision is also made for a fire water tank with sufficient volume in accordance with the latest guidance from the National Fire Chiefs Council (delivering 1,900l per minute for 2 hours).

4.10 Design Life

- 4.10.1 The plant would be expected to operate for up to 40 years at the end of which it would be decommissioned safely. Any elements of hardstanding could be broken up and recycled. The batteries and other infrastructure would also be recycled where practicable. Thereafter, the land would be restored.

5 PLANNING POLICY CONTEXT

5.1 Introduction

- 5.1.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that the determination of a planning application must be made in accordance with the Development Plan unless material considerations indicate otherwise.
- 5.1.2 The statutory development plan is the Bury Unitary Development Plan (UDP) (Saved Policies) and the Places for Everyone Joint Development Plan Document (PfE). The PfE is a joint plan covering nine of the ten Greater Manchester districts, including Bury, and is intended to provide the overarching framework to strategically manage growth across the boroughs. The Places for Everyone Plan took effect and became part of the statutory development plan for each of the nine PfE authorities on 21 March 2024.
- 5.1.3 In this instance, the Development Plan consists of the following documents:
- Places for Everyone Joint Development Plan Document (PfE), adopted, 21 March 2024
 - The Bury UDP, adopted 29th August 1997, Saved Policies
 - Greater Manchester Joint Minerals Plan Development Plan Document, adopted April 2013

5.2 The Development Plan

The Places for Everyone Plan

- 5.2.1 Policy JP-G9: The Green Belt, confirms that the Green Belt serves the five purposes set out in national policy. It also adds:
- “The beneficial use of the Green Belt will be enhanced where this can be achieved without harm to its openness, permanence or ability to serve its five purposes. In particular, the enhancement of its green infrastructure functions will be encouraged, such as improved public access and habitat restoration, helping to deliver environmental and social benefits for our residents and providing the high quality green spaces that will support economic growth.”*
- 5.2.2 Policy JP-S2: Carbon and Energy aims to deliver a carbon neutral Greater Manchester no later than 2038, with a dramatic reduction in greenhouse gas emissions.
- 5.2.3 This will be supported through a range of measures including, *inter alia*:

3. Taking a positive approach to renewable and low carbon energy schemes.

5.2.4 The following policies are also of relevance:

- Policy JP-S1: Sustainable Development
- Policy JP-S4: Flood Risk and the Water Environment
- Policy JP-G1: Landscape Character
- Policy JP-G2 Green Infrastructure Network
- Policy JP-G3: River Valleys and Waterways
- Policy JP-G7: Trees and Woodland
- Policy JP-G8: A Net Enhancement of Biodiversity and Geodiversity
- Policy JP-P2: Heritage

Bury UDP

5.2.5 The application site is situated within the open countryside and the Green Belt as shown on the Polices Map extract below:

5.2.1 The following saved policies are considered relevant to the Proposed Development:

- EN1/5 Crime Prevention
- EN6/4 Wildlife Links and Corridors
- EN8/2 Woodland and Tree Planting
- EN6/3 Features of Ecological Value
- OL1/2 New Buildings in the Green Belt

Emerging Local Plan

5.2.2 At time of writing the Council was consulting on the draft Local Plan over an eight-week period from 17 March to 12 May 2025. The Local Plan sets out a long-term framework to manage future growth and development in the Borough up to 2042.

5.2.3 Figure 1 below is an extract from the Interactive Draft Policies Map. The general location of the application site is shown by the red dot. The key to the coloured shading is:

- Lime green shaded: Whitefield Nature Trail / Outwood Trail (Green Corridor)
- Green shaded: Strategic Green Infrastructure

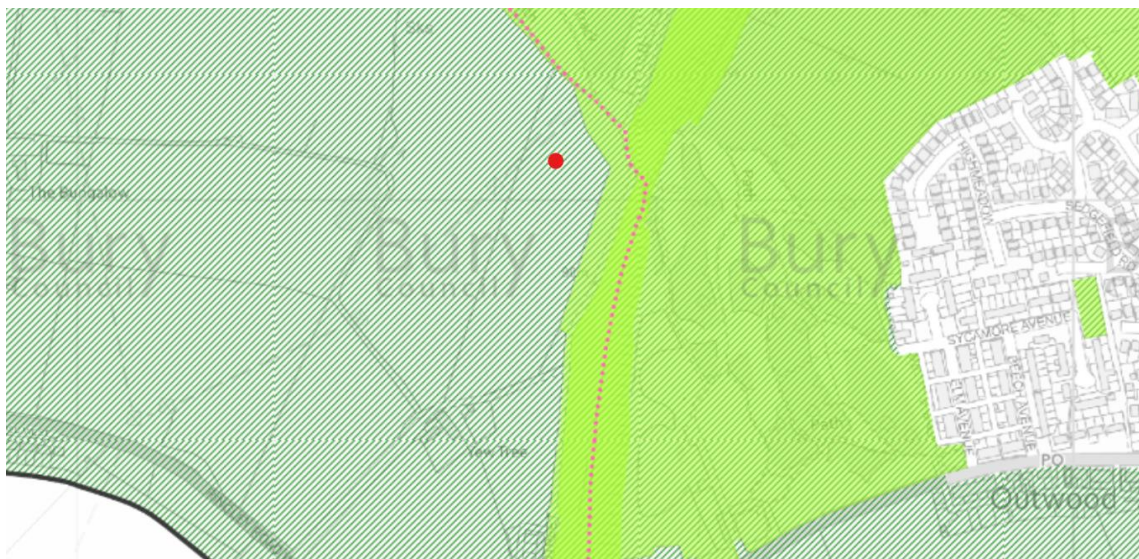


Figure 1: Draft Policies Map Extract

5.3 Other Material Considerations

5.3.1 Other material considerations include the National Planning Policy Framework (December 2024, amended February 2025), National Planning Practice Guidance (last updated 14th February 2024), Overarching National Policy Statement for Energy (EN-1) (November 2023) and Bury Council Climate Action Strategy 2021.

5.3.2 National Planning Practice Guidance (NPPG) confirms that the National Planning Policy Framework (NPPF) represents up-to-date government planning policy and must be taken into account where it is relevant to a planning application.

5.3.3 The following documents are therefore considered to represent a material consideration in the determination of this planning application.

- National Planning Policy Framework;
- National Planning Practice Guidance;
- Relevant National Policy Statements;

National Planning Policy Framework (NPPF), December 2024 (Last Updated February 2025)

5.3.4 The NPPF promotes a strong presumption remains in favour of sustainable development. Paragraph 11 states that:

“For decision-taking this means:

- *approving development proposals that accord with an up to date development plan without delay; or*
- *where there are no relevant development plan policies, or the policies which are the most important for determining the application are out-of-date, granting permission unless:*
 - *the application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for refusing the development proposed; or*
 - *any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole, having particular regard to key policies for directing development to sustainable locations, making effective use of land, securing well-designed places and providing affordable homes, individually or in combination”*

5.3.5 Paragraph 8c of the NPPF notes that a key part of achieving sustainable development is “mitigating and adapting to climate change, including moving to a low carbon economy”.

5.3.6 Paragraph 161 of the NPPF states that the planning system should support the transition to net zero by 2050 and support renewable and low carbon energy infrastructure.

- 5.3.7 In considering how best to meet the challenge of climate change, paragraph 168 of the NPPF states that when determining planning applications for renewable and low carbon developments, local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal's contribution to a net zero future.

National Policy Statement for Energy (EN-1)

- 5.3.8 In England, this NPS, in combination with any relevant technology specific NPSs, may be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended).
- 5.3.9 The overarching National Policy Statement (NPS) for Energy (NPS EN-1) is part of a suite of NPSs issued by the Secretary of State for Energy and Climate Change. It sets out the government's policy for delivery of major energy infrastructure. Paragraph 2.1.3 recognises that:

"To produce the energy required for the UK and ensure it can be transported to where it is needed, a significant amount of infrastructure is needed at both local and national scale."

- 5.3.10 Paragraph 3.2.3 advises that it is not the role of the planning system to deliver specific amounts or limit any form of infrastructure, and that:

"It is for industry to propose new energy infrastructure projects that they assess to be viable within the strategic framework set by government."

- 5.3.11 Paragraph 3.3.4 recognises there are several different types of electricity infrastructure that are needed to deliver our energy objectives, which includes electricity storage. This is expanded on in paragraph 3.3.6:

"Storage and interconnection can provide flexibility, meaning that less of the output of plant is wasted as it can either be stored or exported when there is excess production. They can also supply electricity when domestic demand is higher than generation, supporting security of supply. This means that the total amount of generating plant capacity required to meet peak demand is reduced, bringing significant system savings alongside demand side response (up to £12bn per year by 2050). Storage can also reduce the need for new network infrastructure."

Supplementary Planning Guidance (SPG)

5.3.12 The following SPG's are also relevant:

- Design and Layout of New Development in Bury, October 2008
- New Buildings and Associated Development in the Green Belt, January 2007
- Planning Out Crime in New Development, June 2001
- Wildlife Links & Corridors, June 2001

6 ASSESSMENT OF THE PROPOSAL

6.1 Main Planning Issues

6.1.1 From an assessment of the Development Plan and other relevant material, the following are considered to be the main planning issues associated with the application proposal:

- Principle/location of development;
- Green Belt;
- Landscape;
- Ecology/BNG;
- Noise;
- Transport;
- Flood Risk;

6.1.2 The above matters are considered in turn in the following chapters.

7 PRINCIPLE OF DEVELOPMENT

7.1 Introduction

- 7.1.1 Bury Council have declared a climate emergency and set a target to be carbon neutral by 2038. In response the Council have created a Climate Action Strategy and a linked 2021 Bury Climate Action Plan to reduce its emissions, promote sustainability, improve air quality as well as the health and wellbeing of their communities.
- 7.1.2 The primary function of the proposal is to provide storage and standby electricity capacity for the local network at peak times to avoid fluctuations and blackouts and reduce transmission losses when electricity is transmitted over long distances. The aim of the project is to support the transition to a low carbon economy and a wider move towards sustainable energy.
- 7.1.3 Aside from the Green Belt designation, the proposal, in terms of its actual location, does not fit readily within any specific policy.
- 7.1.4 The Proposed Development is supported by NPPF Paragraph 161, which states that the planning system should support the transition to net zero by 2050 and should support renewable and low carbon energy and associated infrastructure.
- 7.1.5 Furthermore, NPPF paragraph 168 makes clear that when determining applications for renewable and low carbon development, local planning authorities should
- not require applicants to demonstrate the overall need for renewable or low carbon energy, and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal's contribution to a net zero future*
- 7.1.6 The PfE Policy JP-S2: Carbon and Energy states that the aim of delivering a carbon neutral Greater Manchester no later than 2038, with a dramatic reduction in greenhouse gas emissions, will be supported through a range of measures including taking a positive approach to renewable and low carbon energy schemes.
- 7.1.7 Therefore, the proposal is supported by the PfE and NPPF as both provide strong support for the need to deliver energy resilience and renewable energy infrastructure.

- 7.1.8 In terms of the necessity for this location, the basic requirement is for a suitable grid connection point which has two elements. Firstly, there needs to be a suitable connection point with the capacity to accept power from the facility. Such points are scarce. Secondly, there must be a suitable point where surplus electricity can be taken from the grid to be stored in the batteries before being released at times of high demand. Such points need to be away from large consumers of power such as urban areas and are inevitably in the countryside.

7.2 National Policy

- 7.2.1 The NPPF outlines policy support for the delivery of renewable and low carbon energy and associated infrastructure to mitigate climate change. Nationally, there is a critical need for energy storage facilities which contribute to energy reliability, security and actively supports the United Kingdom in achieving the Government 2050 net zero target.
- 7.2.2 In considering how best to meet the challenge of climate change, paragraph 168 of the NPPF states that when determining planning applications for renewable and low carbon developments, local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal's contribution to a net zero future.
- 7.2.3 Renewable sources, by their very nature, intermittently generate energy. Therefore, there is strong national policy support from National Policy Statement EN-1 (NPS) 1 and the Government's Energy White Paper (EWP) for the development of battery energy storage facilities which would aid in the absorption and storage of surplus energy. Additionally, the NPS advises that storage is necessary to reduce the costs of electricity and increase its reliability. Whilst the proposal itself is not a renewable energy project per se, it would nonetheless provide enhanced energy resilience in the National Grid, reduce emissions, and aid the transition to increased dependency on renewable energy.
- 7.2.4 Therefore, national policy support for such development and the need for a rural location in this instance should be afforded significant weight in the planning balance.

7.3 Low Carbon Economy and National Energy Needs

- 7.3.1 The UK has a strategic objective to transform itself into a low carbon economy, in large part via the growth of renewable energy generation such as wind and solar. As renewable energy generation grows, the national transmission network run by National Grid has to cope with greater fluctuation in power

generation often at very short notice. This can leave the UK's power supply unstable and therefore customers are at risk of losing power and the overall stability and safety of the transmission grid network will be at risk.

- 7.3.2 In addition to the growth in renewable energy generation, the UK is witnessing a structural reduction in its conventional power generation fleet typically fuelled by coal and gas. The closure of coal fired power stations also places stress on the stability of the UK's transmission network.
- 7.3.3 Energy storage provides the fast response capability to adapt to these fluctuations in power generation, arising as a consequence of the types of issues referred to above whilst at the same time offering a cost effective, secure and green solution. It can manage the amount of power required to supply customers at times when need is greatest. It can also provide frequency regulation to maintain the balance between the network's load and power generated, and it can achieve a more stable and reliable power supply for high tech industrial facilities. Thus, facilities of this kind can act as a catalyst for the transformation of the UK power industry thereby bringing benefits to its customers.
- 7.3.4 As well as national benefits, the proposed BESS facility would assist the local transition to a low carbon economy. The associated energy strategy is likely to encompass a number of low carbon alternatives.
- 7.3.5 Battery storage in close proximity has significant potential to form part of that sustainable solution and address the intermittency issues afforded by renewables and provide a back-up.
- 7.3.6 The proposed battery storage would offer a rapid response electricity back up to the National Grid and add to growing deployment of such facilities in the UK.

7.4 Site Selection Assessment

- 7.4.1 A Site Selection Assessment (SSA) has been prepared by Low Carbon Alliance and accompanies the application. This section provides a summary of the assessment.
- 7.4.1 The SSA followed a 3 stage process starting with a large geographic search area, consisting of the ENW region which was sequentially reduced to an area surrounding the Radcliffe Primary Substation.
- 7.4.2 Following this process, the site selected is deemed to offer the most favourable balance of development characteristics and a suitable location for a BESS development due to the distance from residential receptors and proximity to an existing substation and suitable transport routes, meaning it would have minimal environmental impacts.

- 7.4.3 The proposal's proximity to the existing PoC (approximately 100m) would mean minimising electrical losses (losses being a function of the length of connection) and therefore minimising any potential environmental effects of any longer-distance connecting cable routes, whilst supporting project viability.
- 7.4.4 The report demonstrates that, although the site is within the Green Belt, there are no other more preferential, suitable or available locations either within or outside of the Green Belt within the required area of search.

7.5 Summary

- 7.5.1 In conclusion on this issue, it is considered that the principle of the development in this location complies with, and is supported by, paragraph 168 of the NPPF and PfE Policy JP-S2.

8 GREEN BELT

8.1 Introduction

8.1.1 The whole of the proposal site is within the Green Belt.

8.1.2 NPPF states at paragraph 153 that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances.

8.1.3 It adds at paragraph 160:

“When located in the Green Belt, elements of many renewable energy projects will comprise inappropriate development. In such cases developers will need to demonstrate very special circumstances if projects are to proceed. Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources.”

8.1.4 PfE Policy JP-G9: The Green Belt confirms the five purposes of the Green Belt.

8.1.5 In accordance with national and local policy, the proposed BESS facility would constitute inappropriate development within the Green Belt. Accordingly, such development should not be approved except in very special circumstances.

8.1.6 It is acknowledged that in determining any application, substantial weight will be given to any harm to the Green Belt. Very special circumstances will only exist if the harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.

8.2 Purpose

8.2.1 The NPPF notes the five purposes of Green Belt as follows:

- a) to check the unrestricted sprawl of large built-up areas;
- b) to prevent neighbouring towns merging into one another;
- c) to assist in safeguarding the countryside from encroachment;
- d) to preserve the setting and special character of historic towns; and
- e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

8.2.2 Taking each of the five purposes noted above;

- a) The proposal will not create unrestricted sprawl. The site is not adjacent to, or in close proximity to any large built-up areas. The developed part of the site is relatively small, covering around 1.39 hectares. The proposal is also temporary in nature and is fully reversible on decommissioning.
- b) The proposal will not contribute to the merging of any such existing settlements.
- c) The proposal will encroach on the countryside, although the proposal is a temporary and reversible.
- d) It is considered, the proposal will not have an adverse impact on the setting or special character of any historic towns.
- e) The proposal in itself does not assist in urban regeneration (by encouraging the recycling of derelict and other urban land).

8.2.3 Therefore, it is considered that four of the purposes of the Green Belt are not affected with only one requiring further consideration (i.e. encroachment on the countryside). Due consideration is required to be given to the openness and purpose of the Green Belt.

8.3 Grey Belt Assessment

8.3.1 NPPF paragraph 155 indicates that:

The development of homes, commercial and other development in the Green Belt should also not be regarded as inappropriate where:

- a) the development would utilise grey belt land and would not fundamentally undermine the purposes (taken together) of the remaining GB across the area of the plan,*
- b) there is a demonstrable unmet need for the type of development proposed,*
- c) the development would be in a sustainable location, with particular reference to paragraphs 110 and 115 of this Framework, and*
- d) where applicable the development proposed meets the “Golden Rules” requirements set out in Framework paragraphs 156 and 157.*

- 8.3.2 Criterion b and c above are subject to Footnotes 56 and 57 which do not apply to this development. The Glossary to the Framework defines Grey Belt as,

“...Grey Belt is defined as land in the GB comprising previously developed land (PDL) and/or any other land that, in either case, does not strongly contribute to any of purposes (a), (b), or (d) in Framework paragraph 143. Grey Belt excludes land where the application of the policies relating to the areas or assets in Footnote 7 (other than GB) would provide a strong reason for refusing or restricting development.”

- 8.3.3 Footnote 7 refers to Framework policies, rather than those in development plans, relating to: habitats sites, and those sites listed in paragraph 194, and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, a National Landscape, a National Park (or within Broads Authority) or defined as Heritage Coast; irreplaceable habitats; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 75); and areas at risk of flooding or coastal change.

- 8.3.4 As to whether the land is Grey Belt, the site is not PDL, and Purpose d - to preserve the setting and special character of historic towns, is not relevant. To determine whether the site falls to be considered as Grey Belt, the site has to pass the test of whether the land, does not strongly contribute to Purpose a - to check the unrestricted sprawl of large built-up areas and Purpose b - to prevent neighbouring towns merging into one another listed in NPPF paragraph 143.

Purpose a – Sprawl

- 8.3.5 The Greater Manchester Green Belt Assessment (2016) assessed how land within the Green Belt contributes to the purposes of it. The application site is located within Parcel BU_BA03B93, an area that covers some 480ha between as shown in Figure 2 below:

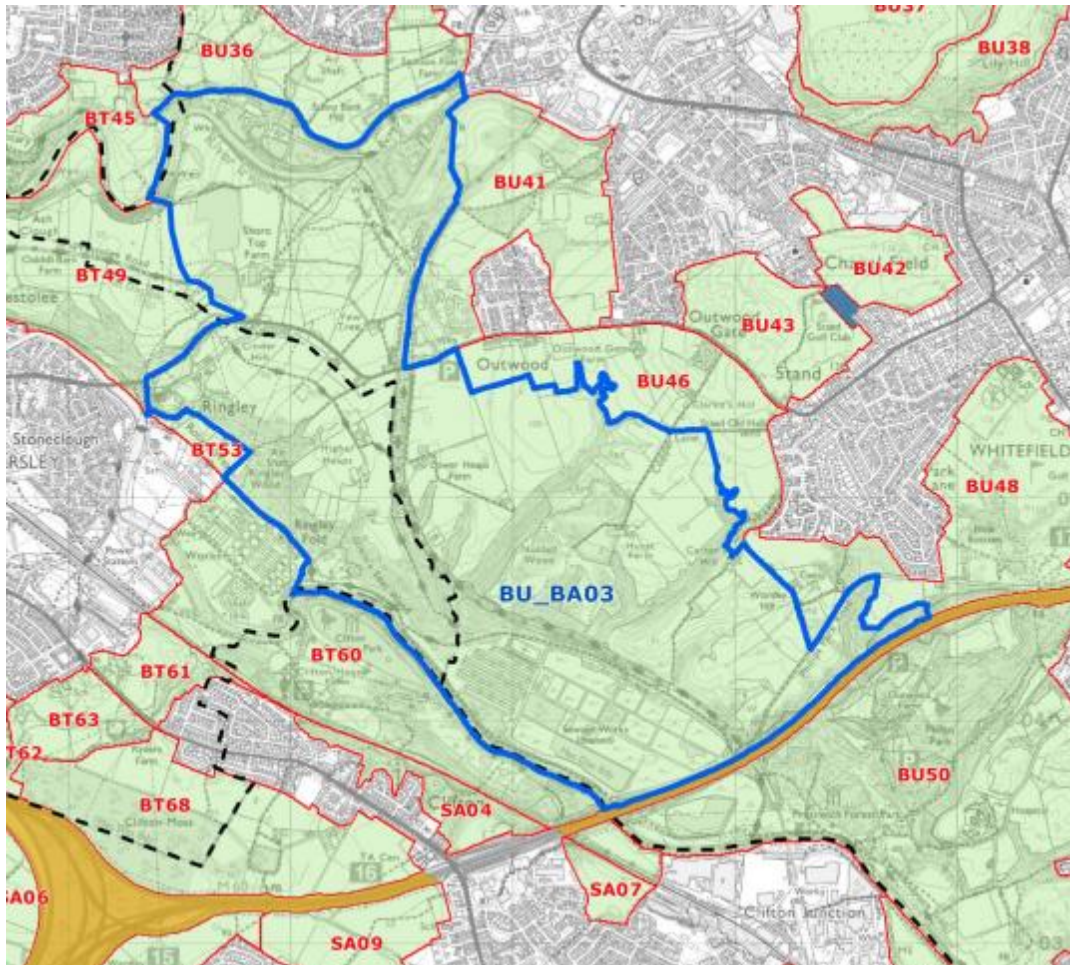


Figure 2: Green Belt Parcel BA03

8.3.6 The GB Assessment describes the area as follows:

This broad area straddles the Bury Bolton boundary, located within the valley of the River Irwell and between the settlement areas of Little Lever, Radcliffe and Whitefield in the north; and Clifton, Kearsley and Farnworth in the south. The land from is gently undulating and to the south number of incised wooded valleys of small streams flow south-west through the area. Land cover comprises a mix of arable and pastoral fields and areas of woodland (some designated as ancient woodland). A number of public footpaths run through the area including the Rotary Way long-distance footpath and the Irwell Sculpture Trail (also part of NCN Route 6) which dissects north to south through the area along disused railway line. Built development is limited to a number of scattered farmsteads and detached houses. The A66 Ringley Road runs east to west through the area.

8.3.7 In relation to sprawl the assessment concluded that:

“This parcel is a Broad Area which is not adjacent to the urban edge as it is separated by intervening parcels. As the parcel does not lie adjacent to the urban edge, it has not been considered further in terms of the role it plays in checking the unrestricted sprawl of the large built up area.”

Purpose b - Merging

8.3.8 The GB assessment states that:

“The parcel lies between the settlements of Radcliffe to the north, Whitefield to the north-east, Clifton to the south Kearsley to the south-west and Little Lever to the north-west. As such the parcel forms part of a critical gap between these settlements. The parcel plays an essential role in preventing the merging or erosion of the visual and physical gap between these settlements along with parcels BU36, BU46, BU48, BT45 and BT60.”

8.3.9 However, the parcel is a substantial area, covering over 480ha whilst the proposed development including the access road would cover only 1.39ha (0.28%). Significant open land would remain between the site and existing towns to the north and south. Due to the woodland to the east and north there is limited visibility of the existing site and the same would be true of the BESS. The proposal would have no material impact on the remaining gap and the perception of the wide expanse of Greater Manchester would remain relatively intact. Given these factors and that development would be temporary and would not lead to the merging of neighbouring towns, the site does not contribute to the purpose in paragraph 143(b).

Purpose 3 - To assist in safeguarding the countryside from encroachment

8.3.10 The GB assessment states that:

“There is limited/no sense of encroachment with the parcel being generally free of urbanised built development. The landscape within this parcel remains largely unspoilt by urbanising influences located outside its boundaries. It has an intact and rural in character and displays characteristics of the countryside.”

8.3.11 The third purpose in paragraph 143(c) is to assist in safeguarding the countryside from encroachment.

8.3.12 The site is currently grazing land and is very near to the existing substation to the north. Housing on Wood Street and a farmstead lie to the south.

- 8.3.13 In acknowledging the site's limited geographical spread and relative self-containment the site does not make a strong contribution to assisting in safeguarding the countryside from encroachment.
- 8.3.14 There would therefore be no conflict with paragraph 143 (c) of the Framework.
- 8.3.15 There is no evidence to suggest that purpose 143(d) that deals with the setting and special character of historic towns would apply in this case and thus the proposal does not make any contribution to this purpose.
- 8.3.16 The site is not Previously Developed Land and so 143 (e) does not apply in this case.
- 8.3.17 Therefore, there is no conflict with purposes paragraph 143(a), (b) and (d).



Figure 3: Site Context in Respect of Potential Merging

- 8.3.18 Turning to paragraph 155(b), a demonstrable unmet need for the development proposed is necessary. The National Policy Statement (NPS) EN-1 indicates that energy storage has a key role to play in achieving net zero and providing flexibility to the energy system, so that high volumes of low carbon power, heat and transport can be integrated. Storage of energy is a vital component in the maximising the useable output from intermittent low carbon generation (e.g. solar and wind), reducing the total amount of generation capacity needed on the system; providing a range of balancing services to the National Electricity Transmission System Operator (NESO) and Distribution Network Operators (DNO) to help operate the system, reduce constraints on the networks and help to defer or avoid the need for costly network upgrades as demand increases.
- 8.3.19 The Framework at paragraph 161 indicates that the planning system should support the transition to a low carbon future, and support amongst other things renewable and low carbon energy and associated infrastructure. Given the context provided by NPS EN-1, it is clear that a BESS project represents much needed such infrastructure.
- 8.3.20 There is a demonstrable need for the development having regard to various Government pronouncements, some of which are explored above, that seek to substantially increase battery storage in order to cater for renewable energy generation. Unquestionably, paragraph 155(b) criterion is met.
- 8.3.21 With regards to Paragraph 155(c), which requires that the development would be in a sustainable location, paragraph 110 of the Framework indicates that significant development should be focussed on locations that are or can be made sustainable, through limiting the need to travel. This paragraph goes on to say that opportunities to maximise transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making. This would appear to relate to development that would generate significant level of vehicle movements, particularly by car, which following commissioning would be at very low levels in this case.
- 8.3.22 Paragraph 115 seeks to ensure that sustainable transport modes are prioritised taking account of the type of development and its location, that safe access can be achieved and that any significant impacts on the capacity of the highway network or highway safety can be acceptably mitigated. The requirement of criterion (c) of paragraph 155 of the Framework is therefore met.
- 8.3.23 Paragraph 155(d) – the ‘Golden Rules’ do not apply in this case since they address major housing developments.

- 8.3.24 It is considered that the relevant criteria in paragraph 155 are satisfied and thus the proposal would not constitute inappropriate development. It would therefore not be in conflict with the Green Belt's purpose to safeguard the countryside from encroachment or conflict with policy JP-G9 of the Places for Everyone Joint Development Plan and the Framework, which set out to prevent unacceptable harm to the Green Belt. The Courts have found that where a development is found not to be inappropriate development it should not be regarded as harmful either to the openness of the Green Belt or to the purposes of including land within it.
- 8.3.25 The Proposed Development would utilise grey belt land and would not amount to inappropriate development in the Green Belt. Subject to mitigation, the proposal would comply with the development plan when read as a whole and with the guidance set out in NPPF.
- 8.3.26 Notwithstanding the above, it is acknowledged that there is an element of subjectivity in some of the criteria assessed above. In the event that the LPA does not accept that the Site is within the Grey Belt then very special circumstances (VSC) would need to be demonstrated and these are dealt with in the subsequent section.

8.4 Very Special Circumstances

- 8.4.1 There is no precise definition of VSC in national policy and guidance. Therefore, each site and proposal must be assessed and determined in this regard on its own merits and particular circumstances.

National policy

NPPF

- 8.4.1 NPPF states at paragraph 161:

"The planning system should support the transition to net zero by 2050 and take full account of all climate impactsand support renewable and low carbon energy and associated infrastructure Local planning authorities should support planning applications for all forms of renewable and low carbon development."

- 8.4.2 Paragraph 168 states that:

"When determining planning applications for all forms of renewable and low carbon energy developments and their associated infrastructure, local planning authorities should:

a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal's contribution to a net zero future;"

National Policy Statement for Energy (EN-1)

- 8.4.3 Overarching National Policy Statement for Energy (EN-1) includes a section on the role of electricity storage in paragraphs 3.3.25 to 3.3.27:

"Storage has a key role to play in achieving net zero and providing flexibility to the energy system, so that high volumes of low carbon power, heat and transport can be integrated.

Storage is needed to reduce the costs of the electricity system and increase reliability by storing surplus electricity in times of low demand to provide electricity when demand is higher. There is currently around 4GW of electricity storage operational in GB, around 3GW of which is pumped hydro storage and around 1GW is battery storage.

Storage can provide various services, locally and at the national level. These include maximising the usable output from intermittent low carbon generation (e.g. solar and wind), reducing the total amount of generation capacity needed on the system; providing a range of balancing services to the NETSO and Distribution Network Operators (DNOs) to help operate the system; and reducing constraints on the networks, helping to defer or avoid the need for costly network upgrades as demand increases."

- 8.4.4 EN-1 also states that low carbon infrastructure is a critical national policy (CNP). It adds that electricity grid infrastructure, such as this, is identified as low carbon infrastructure and is not limited to that associated specifically with a particular generation technology. It also states that electricity storage has a key role to play in achieving net zero and providing flexibility to the energy system (para 4.2.5).

PPG

- 8.4.5 PPG states that:

Electricity storage can enable us to use energy more flexibly and de-carbonise our energy system cost-effectively – for example, by helping to balance the system at lower cost, maximising the usable output from intermittent low carbon generation (e.g. solar and wind), and deferring or avoiding the need for costly network upgrades and new generation capacity.

Paragraph: 032 Reference ID: 5-032-20230814

- 8.4.6 There is unequivocal support for this type of facility in national policy documents, notably NPPF and NPS EN1. This policy support represents the main thrust of the VSC case. However, this policy support is bolstered by recent case law as set out below.

Case Law

- 8.4.7 There have been numerous recent appeal cases where battery storage has been allowed within the Green Belt. Of course, every site is different, and each case must be determined on its own merits. However, the direction of travel is clearly to allow such facilities unless there is irrefutable evidence to the contrary.
- 8.4.8 Table 8.1 below summarises the cases with an extract which formed part of the VSC reasoning of the Inspector. In each case the Inspectors' note that the benefits of such proposals raise substantial public benefits that weigh in favour of the proposals.

Appeal ref	Proposal	Location	Decision Date	VSC case
APP/V1505/W/23/3 332888	Battery Energy Storage Site	Basildon	10-Jun-24	<i>Battery storage is not energy production per se; however the proposal would contribute to the balancing of the local electricity network, providing a flexible supply that complements fluctuations in energy supply and in so doing would increase security of supply to the surrounding area. Provision of battery energy storage is a Critical National Priority (CNP) as set out in NPSEN-1, and it is undisputed that the proposal falls within this category.</i>
APP/C4615/W/24/3 341383	Battery Energy Storage	Halesowen	04-Sep-24	<i>... I give significant weight to these benefits of energy security, flexibility and the contribution to achieving net zero. This is consistent with the draft NPPF which states that for low carbon development, significant weight should be given to the contribution to renewable energy generation and a net zero future.</i>
APP/B3438/W/23/3 335922	Battery Energy Storage Facility	Werrington, Stoke-on-Trent	23-Sep-24	<i>The proposed scheme would be inappropriate development in the Green Belt. However, I find that the delivery of low carbon and renewable related energy infrastructure and storage would clearly outweigh the identified harms.</i>
APP/C4615/W/24/3 345744	Battery energy storage system (BESS)	Illeybrook Farm, Illey Lane, Halesowen	04-02-25	<i>The very significant weight attached to the contribution to mitigating climate change and to energy security, the significant weight attached to the absence of alternative sites and to the potential for permanent BNG and the moderate weight that the economic benefits generated by the proposal clearly outweighs the temporary harm, to the character and appearance of the area. Accordingly, overall, very special circumstances exist which justify the development.</i>
APP/V4630/W/24/3 347424	Construction of a temporary 49.35MW battery energy storage facility	Chapel Lane, Great Barr, Walsall	14-Feb-25	<i>it would have a harmful effect on the openness of the GB on a temporary, but long-term basis. With landscape mitigation, the harm would be localised, and the harm to openness would be Minor Adverse. The relevant criteria contained in Framework paragraph 155 are met and this development does not fall to be considered as inappropriate development in the GB.</i>
APP/Q4245/W/24/3 3354822	Erection of a 35 MW battery storage facility	Carrington, Trafford	17- Feb-25	<i>Storage of energy is a vital component in the maximising the useable output from intermittent low carbon generation (e.g. solar and wind) the relevant criteria in paragraph 155 are satisfied and thus the proposal would not constitute inappropriate development. It would therefore not be conflict with the Green Belt's purpose to safeguard the countryside from encroachment or conflict with policy JP-G9 of the Places for Everyone Joint Development Plan and the Framework, which set out to prevent unacceptable harm to the Green Belt. The Courts have found that where a development is found not to be inappropriate development it should not be regarded as harmful either to the openness of the Green Belt or to the purposes of including land within.</i>

Other Harm

- 8.4.9 The following chapters in this Planning Design and Access Statement assess in detail the environmental and amenity impacts of the Proposed Development. In each case, subject to appropriate mitigation there would be no impact of such significance as to warrant refusal of the application. On that basis, the degree of other harm would not carry sufficient weight to outweigh the tangible benefits of the proposal.

Green Belt Balance

- 8.4.10 The proposal would constitute inappropriate development in the Green Belt. However, the proposed development is not considered to result in significant harm to the openness of the Green Belt as it will simply represent a foreshortening of perceived openness, where the existing woodland adjacent to the site boundary represents the existing extent of perceptual openness.
- 8.4.11 There would also be some harm to the character and appearance of the area, by virtue of the temporary development. However, that is considered to cover a light footprint and the planting proposed would provide some mitigation.
- 8.4.1 Balanced against this is the fact the provision of the infrastructure and its benefits weigh substantially in favour of the proposal, particularly in terms of contributing towards the Government's intention to move to a low carbon and renewable energy network and to meet net zero targets. Added to this are the benefits to biodiversity, and a modest benefit to the local economy.
- 8.4.2 For this proposal, it is considered that there are also substantial benefits similar to those of other battery storage schemes, that is, contributing to Net Zero targets and facilitating the role out of increasing use of renewable energy resources in the country. It provides for, seeks increased energy efficiency, and utilises low carbon energy sources, for which there is clear support in both national planning policy, other national policy and the Bradford's Core Strategy (as noted above).
- 8.4.3 The development would facilitate greater use of renewable energy sources such as wind and solar by allowing such sources to continue to provide energy, even when it is not consumed, whereas at present operators of these sources are paid to turn off turbines when demand is low to avoid overloading the network.
- 8.4.4 The proposal would therefore give more flexibility to the energy system which means energy can be cheaper.

- 8.4.5 It is considered that the benefits identified above attract very significant weight in favour of the scheme and are of sufficient magnitude to outweigh the harm to the Green Belt.
- 8.4.6 Overall, the national policy other considerations in this case clearly outweigh the harms to the Green Belt and the other harms identified. Therefore, very special circumstances exist which justify the development.
- 8.4.7 The proposal is therefore considered, to be in accordance with the NPPF and PfE Policy JP-G9.

9 LANDSCAPE AND VISUAL APPRAISAL

9.1 Introduction

- 9.1.1 ADAS has undertaken a Landscape And Visual Appraisal (LVA). The full LVA supports the application.
- 9.1.2 The LVA of the proposed development has been undertaken to establish the landscape and visual sensitivity of the site and to identify likely landscape and visual effects that may arise as a result of the proposed development.
- 9.1.3 A detailed appraisal of the surrounding study area has been undertaken using Ordnance Survey data, historical map data, local policy and published character assessments. This has informed the on-site field analysis to identify key viewpoints, analyse the landscape character and visual environment of the local area, and determine the extent and significance of any potential landscape and visual effects.

9.2 Site Description

- 9.2.1 The site is approximately 1.39ha in size and is formed by an irregular-shaped parcel of land situated within a green wedge between Radcliffe, Kearsley, and Outwood. The site occupies a gently sloping area of land elevated at around 80m AOD. It is positioned on land that falls westward towards the River Irwell valley floor, with higher land to the east and north providing a degree of containment. The site itself occupies a mid-slope position between two shallow valleys, with landform rising to over 130m AOD to the east. The area in which the site lies is currently rural in character, consisting of pasture fields interspersed with mature hedgerows and woodland blocks.

9.3 Planning Policy

National Policy

National Planning Policy Framework (2025)

- 9.3.1 Of relevance to the landscape and visual considerations are:
- Section 12: Achieving well-designed and beautiful places, paragraph 135;
 - Section 15: Conserving and enhancing the natural environment paragraphs 187-189:
 - Section 15 paragraph 198:

National Planning Practice Guidance, 2021

- 9.3.2 Under the Natural Environment PPG (July 2019), the sub-section 'Landscape' in Paragraph 037 supports the use of landscape character assessment as a tool for understanding the character and local distinctiveness of the landscape and identifying the features that give it a sense of place, as a means to informing, planning and managing change.

Local Planning Policy**Places for Everyone Joint Development Plan Document 2022–2039**

- 9.3.3 Policy JP-G1: Landscape Character, states:
- 9.3.4 *“Development within a Landscape Character Type... should reflect and respond to the special qualities and sensitivities of the key landscape characteristics of its location,”*
- 9.3.5 Policy JP-G2: Green Infrastructure Network, states that development within and around the Green Infrastructure Network should be consistent with delivering major green infrastructure improvements within them and should contribute to improvements. It adds that:
- Development which involves the removal of land from the Green Belt (including allocations proposed in this plan) will be required to offset the impact of removing land from the Green Belt through identifying and delivering compensatory improvements to the environmental quality and accessibility of remaining Green Belt in the vicinity of the site.*
- 9.3.6 Policy JP-G7: Trees and woodland states that the authorities will work to deliver the aims and objectives of the Greater Manchester Tree and Woodland Strategy, aiming to significantly increase tree cover, protect and enhance woodland, and connect people to the trees and woodland around them.

Adopted Bury Unitary Development Plan 1997 (Saved Policies)

- 9.3.7 The following policies are relevant to this chapter:
- Policy EN8 – Woodland and Trees
 - Policy EN9 – Landscape
 - Policy EN6/4 Wildlife Links and Corridors

9.4 Baseline

Landscape Character

- 9.4.1 At the national level, the site and study area is located within the '54 Manchester Pennine Fringe' (NCA) (2013).
- 9.4.2 The Greater Manchester Landscape Character and Sensitivity Assessment (2018) defines the Landscape Character Types (LCT) and Landscape Character Areas (LCA) within Greater Manchester. The site sits within LCT Incised Urban Fringe Valley and LCA 16: River Irwell and River Croal.
- 9.4.3 The Bury Landscape Character Assessment 2009 places the site within 54/6 Encapsulated Flood Plains.
- 9.4.4 The site is located within a prominent green wedge bound by the River Irwell to the west and the surrounding settlements of Radcliffe to the north, Kearsley to the south, and Outwood to the east. Land use in the surrounding area is largely rural and semi-rural in nature. To the west and south of the site, agricultural fields dominate, interspersed with occasional farmsteads, electricity pylons, and associated infrastructure. A network of minor roads and access tracks crosses the area, linking farm properties and reinforcing the rural land-use character. This varied land use and vegetation pattern contributes to the landscape's patchwork quality, with the site acting as a transitional space between more developed settlement edges and the open countryside beyond.
- 9.4.5 The surrounding context includes agricultural land, woodland blocks such as Ringle Wood and Giants Seat Wood, and recreational landscapes associated with Outwood Country Park to the immediate east. Energy infrastructure and minor rural roads characterise land to the south and west. The River Irwell meanders along the western edge of the wider green wedge, lined with mature vegetation that contributes to the wooded landscape character and sense of visual enclosure from wider urban influences.
- 9.4.6 The site is not subject to any natural heritage designations and does not contain any designated heritage assets or known cultural associations. The condition of the landscape within the site is moderate and appears to be managed primarily as pasture or rough grassland. While the site does form part of the wider green wedge and contributes to the general openness of the landscape, it makes only a limited contribution to strategic green infrastructure functions such as connectivity or recreation. The site is not subject to any statutory landscape designations, and while it lies within an area of open countryside, it does not contain irreplaceable landscape features and is only modestly integrated into the wider connected green infrastructure network.
- 9.4.7 As such, the site is not considered to be a valued landscape in terms of Box 5.1 of GLVIA3 (Ref. 1) and is therefore considered to have a medium to low landscape value.

- 9.4.8 The site is considered to have a medium susceptibility to the type of development proposed, namely BESS. Although there will be a clearly perceived change to the land use on the site, the Proposed Development would have limited direct effects on valued landscape features. Furthermore, mitigation and proposed green infrastructure would support visual integration, and the surrounding landform and vegetation limit the visual extent of the site from key viewpoints.
- 9.4.9 The site itself is therefore considered to have a **Medium** overall sensitivity to the type of change proposed.

Visual Character

- 9.4.10 The site is situated within a flat valley landscape, with gently rising land to the north and south. Visibility is largely restricted by mature hedgerows, riparian vegetation, and tree belts, which enclose agricultural field parcels and limit direct views. While foreground vegetation provides significant screening at close range, visibility at greater distances is influenced by topography and built elements, such as roads and settlement edges. The interaction between landform and vegetation creates a variable visual experience, where the site is either fully screened, partially glimpsed, or visible through a filtered landscape composition.
- 9.4.11 A visual appraisal was undertaken to determine the extent of visibility, the relationship between the site and its surroundings, and key opportunities and constraints in relation to landscape character. The assessment considers how landform, vegetation cover, and built form collectively shape the extent and nature of views.
- 9.4.12 Visibility is highest in close-range locations to the west and southwest of the site, particularly along footpaths and the Irwell corridor. However, mature vegetation and undulating landform mean that views are often filtered or heavily screened. Visibility diminishes significantly with distance, with mid- and long-range views largely obscured. As a result, the proposed development would not be widely visible, and where visible, it would be seen in the context of existing infrastructure, built form, or mature woodland.

9.5 Mitigation

- 9.5.1 A comprehensive landscape mitigation strategy has been incorporated to support visual integration and minimise effects on landscape character. Key measures include:
- Retention and enhancement of boundary vegetation and tree cover, to reinforce visual containment.

- Planting of new hedgerows with hedgerow trees along the northern and eastern site boundaries.
- Sensitive placement of infrastructure to reduce visibility and avoid breaking the skyline in key views.
- Establishment of species-rich grassland to improve biodiversity and support green infrastructure objectives.

9.6 Appraisal of Effects

Landscape

- 9.6.1 For the purposes of this assessment, the construction and decommissioning effects are not considered in detail as the construction and decommissioning works will be completed in a relatively short time period, estimated to be around 5 months. As such, any effects will be brief and will not give rise to any significant effects. Activities to install and remove the proposed development will occur at a low height and within the existing landscape pattern.
- 9.6.2 The site is not subject to any national or local landscape designations and is not considered to be a valued landscape. The landscape is of Medium–Low value, and the site’s visual containment and limited recreational function reduce its sensitivity to change. The development will be located in an area of former grassland and will not fundamentally alter key characteristics of the wider landscape.

Visual Effects

- 9.6.3 The visual assessment indicates that the development will be largely screened or filtered by boundary vegetation and woodland cover. Visibility is most notable in short-range views from parts of the Irwell Sculpture Trail and local Public Rights of Way (PROWs) which pass through or near the site. In these views, the development will be partially visible but will be experienced in the context of existing infrastructure and wooded landscape, with limited contrast against the existing setting.
- 9.6.4 Effects on the landscape character of LCA 16: River Irwell and River Croal will be Minor Adverse, localised in extent, and largely reversible following decommissioning. The landscape strategy is consistent with guidance in the Greater Manchester Landscape Character and Sensitivity Assessment (2018), particularly in enhancing woodland and hedgerow networks and supporting the multi-functional role of green infrastructure.
- 9.6.5 Visual effects will vary according to proximity and screening. Moderate Adverse effects are expected in close-range views from PROWs passing through the site (notably PROW 9SS and the Irwell Sculpture Trail),

where users will experience perceptible change. Effects in mid- to long-range views will be limited to glimpsed or filtered visibility, resulting in Minor or Negligible effects. Residential receptors in the wider area are well screened, and no significant visual effects are anticipated.

9.7 Openness

- 9.7.1 The application site lies within the designated Greater Manchester Green Belt. In accordance with the National Planning Policy Framework (NPPF, 2025), consideration has been given to the potential effects of the proposed development on the openness of the Green Belt and whether the proposal conflicts with the five purposes of including land within it (Paragraph 143).
- 9.7.2 While the site is physically open in that it is currently undeveloped in terms of built form, it does not display characteristics of a wholly open or rural landscape. The site is visually contained by existing vegetation, including mature woodland blocks, field boundaries, and tree belts associated with Outwood Country Park to the north and east. While the site is open to some extent in views from the south and west, these are experienced in the context of existing energy infrastructure, including pylons and substations, and are filtered by surrounding woodland. The site is not located at a settlement edge, and views from the north and east are heavily screened by intervening vegetation. As such, the site does not contribute significantly to a perception of openness in long-range views from key receptors.
- 9.7.3 Due to this established containment, the site does not make a significant contribution to visual openness in the wider landscape. Views across or through the site are limited, and it does not facilitate an appreciation of rural openness, landscape pattern, or visual continuity between areas of built development. These findings are supported by the Zone of Theoretical Visibility (ZTV) analysis and field observations recorded during the winter survey, when screening vegetation was not in leaf.
- 9.7.4 The Proposed Development, comprising low-height battery containers and associated infrastructure (maximum height c.2.8–3.0m), would be partially screened by retained vegetation and additional planting proposed as part of the landscape strategy. The relatively modest scale of development and its location within an already enclosed landscape setting would limit its influence on the perceived openness of the Green Belt. The proposals have been designed to sit within existing field boundaries, avoiding physical or visual encroachment into the surrounding open countryside.
- 9.7.5 There are no clear or continuous views across the site to the wider landscape from the west and south due to the containment provided by intervening vegetation. Viewpoints 3, 4 and 5 provide views across the site and towards the wider landscape, but these are experienced in the context of existing

infrastructure and development, including adjacent energy infrastructure. While some openness is perceived in these views, it is limited and influenced by the semi-enclosed and already modified character of the site's setting.

- 9.7.6 Mitigation planting will help to integrate the development into the landscape of Outwood Country Park, in a manner similar to the existing electrical substation located to the north of the site.
- 9.7.7 In terms of the purposes of the Green Belt (as outlined in Paragraph 143 of the NPPF), the site does not play a key role in preventing urban sprawl, safeguarding the countryside from encroachment, or preserving separation between towns. The surrounding context is characterised by a mosaic of green infrastructure, woodland and utilities infrastructure. As such, the development would not contribute to coalescence of settlements or impact any historic town setting.
- 9.7.8 The proposed development is not considered to result in significant harm to the openness of the Green Belt as it will simply represent a foreshortening of perceived openness, where the existing woodland adjacent to the site boundary represents the existing extent of perceptual openness. Where minor visual changes occur, these are localised and limited in extent due to the containment of the site and the integrated landscape strategy.

9.8 Summary and Conclusions

- 9.8.1 The proposed development is consistent with national and local planning policy relating to the use of land for low-carbon energy and biodiversity net gain. It aligns with guidance in the Greater Manchester Landscape Character and Sensitivity Assessment by enhancing boundary structure, supporting green infrastructure, and delivering an integrated landscape framework.
- 9.8.2 It is therefore considered that, subject to implementation of the landscape scheme, the proposed development can be successfully accommodated within the existing character of the site and surrounding area. The visual and landscape effects will be localised, minor, and reversible following decommissioning, ensuring the development does not give rise to unacceptable harm to landscape character or visual amenity.
- 9.8.3 As a result, the proposed development will remain consistent with the established landscape pattern, reinforcing existing green infrastructure while enhancing biodiversity and ecological connectivity. The site's location, alongside existing overhead lines infrastructure and industrial uses such as the substation, ensures that it can accommodate the proposed development.

- 9.8.4 The proposed development is not considered to result in significant harm to the openness of the Green Belt as it will simply represent a foreshortening of perceived openness, where the existing woodland adjacent to the site boundary represents the existing extent of perceptual openness.
- 9.8.5 The proposed development will therefore comply with Policies JP-G1, JP-G2, JP-G7, saved UDP policies EN8, EN9 and NPPF.

10 BIODIVERSITY

10.1 Introduction

- 10.1.1 ADAS Ecology has undertaken a Preliminary Ecological Appraisal (PEA). The full report accompanies the application.
- 10.1.2 The aim of the PEA is to identify confirmed or potential ecological constraints to the proposed works and make recommendations for avoidance/mitigation/compensation, and opportunities for enhancement that can be incorporated into the design. The PEA also makes recommendations for further surveys, as required.
- 10.1.3 The site, located off Wood Street in Radcliffe, covered approximately 1.39ha and comprised modified grassland, lowland mixed deciduous woodland and other developed land. The site is bounded to the south by Ringley Road (A667), to the north and east by Outwood Country Park and to the west by pasture fields for horses. A pre-existing footpath runs from Wood Street, leading up to the substation, and traverses part of the northern section of land within the redline boundary. The footpath also interlinks with paths leading into Oakwood Country Park. Two ponds are located within 250m of the site boundary.
- 10.1.4 The Zone of Influence varies for different ecological features and each designated site, habitat and species has been considered in relation to their sensitivity to the proposed development, taking into account the nature of the proposed works.

10.2 Planning Policy & Legislation

Planning Policy

NPPF

- 10.2.1 Paragraph 180 states that:

Planning policies and decisions should contribute to and enhance the natural and local environment by:

(a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

(d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

Local Planning Policy

Places for Everyone Joint Development Plan

- 10.2.2 Policy JP-G2 Green Infrastructure Network states that development which involves the removal of land from the Green Belt (including allocations proposed in this plan) will be required to offset the impact of removing land from the Green Belt through identifying and delivering compensatory improvements to the environmental quality and accessibility of remaining Green Belt in the vicinity of the sites.
- 10.2.3 Policy JP-G3: River Valleys and Waterway states that river valleys and waterways will be protected and improved as central components of our Green Infrastructure Network and a vital part of a Nature Recovery Network.
- 10.2.4 Policy JP-G8: A Net Enhancement of Biodiversity and Geodiversity states that development should Achieve a measurable net gain in biodiversity of no less than 10% and:

Development proposals should be informed by the findings and recommendations of the appropriate biodiversity/ecological assessment(s) in the PfE evidence base and/or any updated or appropriate biodiversity/ecological assessments submitted as part of the planning application process.

Legislation

The Wildlife and Countryside Act 1981

- 10.2.5 The Wildlife and Countryside Act 1981 (as amended) consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain.

The Natural Environment and Rural Communities Act 2006

- 10.2.6 Section 40 of the NERC Act 2006 places a duty upon all local authorities in England to promote and enhance biodiversity in all of their functions

The Conservation of Habitats and Species Regulations 2017 (as amended)

- 10.2.7 The Conservation of Habitats and Species Regulations 2017 (as amended) transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law and transpose elements of the EU Wild Birds Directive in England and Wales.

The Environment Act (2021)

10.2.8 The Environment Act (2021) was passed into law in November 2021. Under this act, BNG became mandatory in England under Schedule 14 of the Act. This means that all planning permissions granted in England (with a few exemptions) must deliver at least 10% biodiversity net gain (for all Biodiversity Units type – HU, HeU and RU) from January 2024, and small sites from April 2024. BNG must be measured using the Statutory biodiversity metric and habitats will need to be secured for at least 30 years.

10.3 Evaluation of Ecological Features/Further Survey

10.3.1 Table 10.1 below provides an evaluation of the ecological features on site and in proximity, identifying which are of sufficient importance to be taken forward for further consideration.

Table 10.1: Evaluation of Ecological Features

Ecological Feature	Justification	Level of Importance / Likely Value
Modified grassland	A common and widespread habitat of little ecological importance.	Negligible Importance
Line of Trees	A relatively common habitat nationally and in Bury, not associated with the local plan nevertheless, this habitat is connected to deciduous woodland in the wider area and is therefore considered of local importance. This habitat is no longer within the red line boundary and is not anticipated to be affected by works.	Negligible Importance
Bramble scrub	A common and widespread habitat however is considered of high ecological value for bird populations. This habitat is no longer within the red line boundary and is not anticipated to be affected by works.	Negligible Importance
Lowland mixed deciduous woodland	A priority habitat consisting of a variety of tree species and ages of trees. This habitat may qualify as a habitat of principle importance under the NERC Act 2006 and are therefore considered of local importance. Since the cable will be installed underground via Horizontal Directional Drilling, it is not anticipated that this habitat would be affected by works.	Negligible Importance
Dense Scrub	.A common and widespread habitat within the site and surrounding land. The scrub was dense with various native species present, this habitat is considered ecologically valuable to bird and invertebrate populations. This habitat is no longer within the red line boundary and is not anticipated to be affected by works.	Negligible Importance
Other Developed Land	The pre-existing earth track offers little ecological importance	Negligible Importance
Birds	The dominant habitat on site (modified grassland) has low potential to support notable species of ground nesting bird during the bird breeding season (March – August inclusive). Due to the size and scale of the development, along with the habitats to be impacted, no notable foraging habitat for	Site Importance

	wintering and migratory birds will be lost. Although the woodland, bramble scrub, dense scrub and line of trees are likely to support nesting birds, it is not anticipated that any suitable nesting vegetation would be affected by proposed works.	
Bats	The woodland and scrub habitats on site are considered to be suitable for foraging and commuting bats which may also allow movement off site and to potentially better-quality feeding grounds. Two mature Oak trees, a couple of metres from the pre-existing track, were identified as having moderate bat roost potential however these are not expected to be affected by the current plans.	Site Importance
Badger	The site and land within 30m of the site, provided ample foraging and sett creation opportunities for Badger within the woodland, line of trees, dense scrub and Bramble scrub. Field signs in the form of footprints were recorded during the survey.	Site Importance
Water Vole	No watercourses were recorded on site, the River Irwell, located 250 m from site, was deemed unsuitable to support this species.	Negligible Importance
Otter	No watercourses were recorded on site however the River Irwell is located 250 m north of the site which was deemed suitable to support this species. Following a survey for this species, field signs were present, however no resting places or holts were identified and as such, the proposed development is not considered likely to affect this species.	Negligible Importance
White-clawed Crayfish	No watercourses on site that would support this species.	Negligible Importance
Reptiles	Habitat for reptiles on site was recorded within the scrub, field boundaries and woodland margins. The modified grassland is considered negligible to support reptiles.	Site Importance
Amphibians	Two ponds were present within 250 m of the site with poor and excellent suitability to support Great Crested Newt and other amphibians. Suitable terrestrial habitat was present in the form of scrub, tree cover and woodland on site.	Unknown – further consideration required.
Invertebrates	The habitat on site is considered likely to support a range of common invertebrates and potentially notable species which require expanses of ‘woody’ vegetation during their life cycle.	Negligible Importance
Non-Native invasive plant species	Three non-native invasive species were apparent on site. The proposed development should follow the terms of the ‘Invasive non-native Species Report’, previously submitted by ADAS (ADAS 2025b)	Site importance

10.4 Ecological Constraints, Opportunities and Recommendations

Designated Sites

10.4.1 Ten statutory designated site of nature conservation importance are located within 5 km of the proposed development site, the closest of which are Chapelfield LNR located 1.2km east and Ashclough SSSI located

1.2km west of the site. Given the distance between the site and statutory designations, and the qualifying / notified features for which these sites are designated, no impacts as a result of the proposed development are envisaged.

- 10.4.2 Eight non-statutory designated sites of nature conservation importance are located within 2 km; the closest being Manchester, Bolton and Bury Canal (East) SBI located 600m north of the site. Given the distance between the site and non-statutory designations, no impacts as a result of the proposed development are envisaged.

Habitats

- 10.4.3 The dominant habitat on site, modified grassland, is considered of negligible ecological importance, and is therefore not considered further. Lowland deciduous mixed woodland is not anticipated to be affected by works since the proposed cables will be underground.

Species and Species Groups

Birds

- 10.4.4 While it is not considered proportionate to undertake further breeding/wintering bird surveys given the dominant habitat on site and size of the site, it is recommended that the works follow precautionary working methods outlined in the full report.

Bats

- 10.4.5 A Ground level Tree Assessment (GLTA) of trees on and adjacent to the site to identify potential roost features (PRF) for bats was undertaken as part of this assessment. The trees on site were of a variety of ages along the line of trees with mature aged trees in the lowland mixed deciduous woodland. The PRA revealed two mature Oak trees, as having moderate bat roost potential. It is not proposed to remove these trees.
- 10.4.6 The habitats on site present good foraging and commuting opportunities for several bat species, particularly the scrub and linear trees. These habitats may also form commuting routes to and from suitable feeding habitats within the wider area. Furthermore, the rivers, deciduous woodlands and its edge, in the surrounding area are also likely to provide good foraging and commuting habitat. These habitats are not anticipated to be affected by the proposed works. Since only a relatively small section of vegetation is being cleared, no significant impacts upon foraging and commuting bats are envisaged.

Badger

- 10.4.7 While no active Badger setts were identified during the field survey, field signs in the form of footprints were present. The data search revealed active setts are within 400m of the site. Areas where vegetation is anticipated to be removed were fully surveyed however Badgers are highly mobile animals and may excavate a new sett within a short period of time. Similarly, the large expanse of lowland mixed deciduous woodland associated with Outwood Country Park was not fully surveyed and could contain active Badger setts. It is therefore recommended that a pre-works check for new setts/excavations, within and adjacent to the site, is undertaken by a suitably qualified ecologist.

Otter

- 10.4.8 The River Irwell is likely to support Otters due to the number of Otter sightings and field records returned by the data search. Following an Otter survey, it was concluded that although the River Irwell was suitable for this species and likely forms part of an active territory, no holts or resting places were present and therefore risk to this species can be discounted. Further details are included within the Otter Report produced by ADAS (ADAS 2024a).

Great Crested Newt

- 10.4.9 Two ponds with poor and excellent suitability to support breeding Great Crested Newt were present within 250 m of the site. No direct impact to the ponds or suitable terrestrial habitat are anticipated. However, should proposed works change and impacts to suitable terrestrial habitats become unavoidable, it is recommended that a Non-licensed Method Statement is issued to cover vegetation clearance works on site, to be supervised by an ecological clerk of works.

Reptiles

- 10.4.10 Habitat on site was considered suitable to support reptiles within the Bramble scrub and woodland margins. If scrub and woodland habitat is likely to be removed, then a Non-licensed Method Statement should be implemented to mitigate potential impacts to any reptile populations which may be present on site.

Invasive non-native species

- 10.4.11 Three invasive species were present on site, with Himalayan Balsam present being the most prolific of the three and present within the adjacent lowland mixed deciduous woodland. Giant Hogweed was also present in three locations adjacent the site boundary, all within the lowland mixed deciduous woodland.

A single dense stand of Japanese Knotweed was also present, adjacent the northern boundary of the existing substation, outside the red line boundary. Works should follow the terms of the invasive non-native species method statement, previously submitted by ADAS (ADAS 2025b).

10.5 Other Enhancement Opportunities

10.5.1 Additional enhancement options on site include:

- Provision of bat roost boxes and bird nest boxes on retained trees on site and within the surrounding area;
- Incorporation of an invertebrate 'hotel' and Bumblebee boxes;
- Dead wood collected following vegetation clearance is retained on site to create dead wood piles;
- Seed the site with a wildflower seed mix, increasing biodiversity benefitting, insects, bats, birds etc;
- Other Neutral grassland and native hedgerow will be created to replace the loss of modified grassland.

10.6 Conclusions

10.6.1 Ten statutory and eight non-statutory designated sites of nature conservation importance are located within 2-5 km of the proposed development site. No impacts to any designated site are envisaged as a result of the proposed development.

10.6.2 It is anticipated that the only habitat lost will be modified grassland. The woodland will be retained since the proposed cable will be undergrounded via horizontal directional drilling.

10.6.3 Nesting birds checks may be required if vegetation clearance takes place during nesting bird season between March – August inclusive.

10.6.4 Badger activity was confirmed within proximity of the site, due to the amount of suitable habitat for sett construction. It is recommended that a pre-works check for Badgers, prior to works on and adjacent to the site is undertaken by an ecologist.

10.6.5 The Otter survey undertaken by ADAS during May 2024, concludes that although the River Irwell likely forms part of a currently active territory, no holts or resting places were apparent and as such, no impacts are considered likely to this species, as a result of the proposed development.

- 10.6.6 All works should be undertaken under the terms of the invasive non-native species method statement (ADAS 2025b) previously submitted for the site, given the prolific nature of the INNS identified on / adjacent the site, and the extent of those aforementioned species.
- 10.6.7 Subject to appropriate mitigation, the proposed development would accord with Policies JP-G2, JP-G3, JP-G7, JP-G8 and NPPF.

11 BIODIVERSITY NET GAIN ASSESSMENT

11.1 Introduction

- 11.1.1 A Biodiversity Net Gain (BNG) Assessment has been carried out by ADAS and is attached as technical addendum to accompany the Preliminary Ecological Assessment. The following text is a summary of the BNG assessment.
- 11.1.2 The development proposals have been subject to a Biodiversity Net Gain Assessment using the Statutory Defra Metric. The value of existing habitats on-Site (pre-highways works) has been calculated using the Baseline Habitats Map and habitat descriptions in this report. The value of proposed habitats has been calculated using the Landscape Strategy Plan.

11.2 Planning Policy

NPPF

- 11.2.1 Paragraph 187 of the NPPF states that decisions should contribute to and enhance the natural local environment by:

‘Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.’

Places for Everyone Joint Development Plan’

- 11.2.2 Policy JP-G8: A Net Enhancement of Biodiversity and Geodiversity seeks to achieve a net enhancement of biodiversity resources.

11.3 Baseline Assessment

- 11.3.1 The condition of each habitat has been assessed against the relevant positive indicators. Summaries of the habitat units and linear units for each baseline habitat are provided in Tables 11.1 and 11.3 below

Table 11.1: Baseline assessment – on-site area habitats

Habitat Type	Area (ha)	Condition	Strategic Significance	Total Habitat Units
Modified Grassland	0.91	poor	Area/compensation not in local strategy/ no local strategy	1.82
Lowland Mixed Deciduous Woodland	0.06	Poor	Area/compensation not in local strategy/ no local strategy	0.36
Rural Tree	0.02	Moderate	Area/compensation not in local strategy/ no local strategy	0.16
Developed Land; sealed surface	0.40	N/A Other	Area/compensation not in local strategy/ no local strategy	0.00
Total	1.39		-	2.34

11.4 Proposed Biodiversity Unit Assessment

Impacts of the Proposed Development

- 11.4.1 The Proposed Development will result in a loss of c. 0.41 ha of Modified Grassland for the creation of the BESS, access routes and other hardstanding surfaces. Approximately 0.07 ha of Modified Grassland is due to be impacted temporarily (temporary access route). However, the habitat is expected to return to its original type and condition within two years of first impact, therefore has been accounted for as retained.
- 11.4.2 The remaining 0.43 ha of Modified Grassland not lost to the development will be enhanced to Other Neutral Grassland through the sowing of Emorsgate EM2 Standard General Purpose Meadow Mixture or similar.
- 11.4.3 An additional 0.20 km of Species-rich Native Hedgerow with trees will be created along the western and southern site boundaries to act as a natural screen.

On Site Habitats

- 11.4.4 The new on-site area habitats are based on the development plan in Appendix 1 of the full assessment and are summarised in Table 11.2 with new linear features summarised in Table 11.3.

Table 11.2: Summary of on-site habitat creation and enhancement

Habitat Type	Area (ha)	Condition	Strategic Significance	Total Habitat Units
Creation				
Developed Land; Sealed Surface	0.41	N/A Other	Area/compensation not in local strategy/ no local strategy	0.00
Total	0.41	-	-	0.00
Enhancement				
Modified Grassland – Other Neutral Grassland	0.43	Moderate	Area/compensation not in local strategy/ no local strategy	2.60
Total	0.43	-	-	2.60

Table 11.3: Summary of on-site linear feature creation

Habitat Type	Length (km)	Condition	Strategic Significance	Total Habitat Units
Creation				
Species-rich Native Hedgerow with Trees	0.20	Moderate	Area/compensation not in local strategy/ no local strategy	1.62
Total	0.2	-	-	1.62

11.5 Summary of Habitat Changes

- 11.5.1 The total biodiversity value of the onsite habitats prior to development was 2.34 habitat units and 0.00 hedgerow units. Of the area habitats on site, 0.41 ha of Modified Grassland will be lost to the development, 0.43 ha will be enhanced to Other Neutral Grassland, and 0.07 ha will be retained (temporary access route). A new 0.20 km Species-rich Native Hedgerow with trees will be created along the site's western and southern boundaries.
- 11.5.2 To account for the time between the removal of habitats for construction and the creation of new habitats, we have assumed a 1-year delay in the starting of habitat creation.
- 11.5.3 The total post-construction biodiversity value is anticipated to be 3.26 habitat units and 1.62 hedgerow units.
- 11.5.4 Under the current scheme design, post-development habitats and their associated target conditions will achieve a total net change of 0.92 biodiversity units, which represents a 39.47% net gain.

11.5.5 There will be a net gain of 1.62 linear units. As the baseline had no hedgerow units, the percentage net gain cannot be calculated.

11.5.6 A screenshot of the headline results within the biodiversity metric is shown in Figure 4 below.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.92
	Hedgerow units	1.62
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	39.47%
	Hedgerow units	N/A
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

Figure 4: Headline Results (taken from the Statutory Biodiversity Metric)

11.6 BNG Good Practice Principles for Development

11.6.1 Table 11.5 below outlines the justification of how each of the BNG Principles has been applied as part of the biodiversity net gain assessment.

Table 11.5: Good practice principles and their consideration within the scheme

Good Practice Principle	Site Considerations
Apply the mitigation hierarchy	See section 11.7.
Avoid losing biodiversity that cannot be offset elsewhere	There will be no significant impacts to designated sites or priority habitats (hedgerows). The only habitat that will be lost on site (modified grassland) is of a 'low' distinctiveness and is common and widespread within the local area.
Compensate/offset	Soft landscaping and hedgerow planting onsite is recommended to achieve >10% increase in habitat areas and compensate for habitat loss.
Be inclusive and equitable	Proposed development is to achieve a significant net gain via consultation with a range of local and specialist stakeholders e.g. landscape architects, client engineers etc during enhancement design and implementation (agreeing areas for ecological enhancement and most suitable buffer vegetation for screening).
Address risk	The Statutory Biodiversity Metric has been used as a nationally recognised method to quantify biodiversity changes from the proposed development. Proposed retained and created habitats will meet biodiversity net gain targets. A management plan will be produced to ensure biodiversity and environment targets for the development are actioned.
Make a measurable net gain contribution	The Statutory Biodiversity Metric has been used to quantify the net change in biodiversity achieved using the recommended enhancements and will achieve a 39.47% net gain in habitat units and a gain in linear units.
Be additional	A gain of over 10% is expected and the creation of a variety of habitats creates more ecological diversity.

Create a net gain legacy	The production of a Conservation Covenant agreement to ensure biodiversity net gain is achieved within 30 years at the site and habitats managed long-term to achieve best possible biodiversity and ecological status.
Optimise sustainability	By achieving net gain from proposed recommendations for the site in relation to biodiversity and ecology, the development will optimise environmental sustainability within the local area.
Be transparent	The biodiversity net gain assessment of the site has been made using the Statutory Biodiversity Metric, and this report will be delivered alongside the calculation sheet and supported drawings used in the calculations. All metric choices have been fully explained and justified.

11.6.2 A BNG monitoring report will be prepared after each BNG monitoring survey and will include a summary of habitat type, extent, and condition (with a comparison where applicable against the expected condition proposed in the BNG report). The BNG monitoring reports will be submitted to the local planning authority.

11.7 Consideration of the Mitigation Hierarchy

11.7.1 Table 11.6 below outlines how the mitigation hierarchy is being considered.

Table 11.6: Mitigation hierarchy

Hierarchy Step	Site Considerations
Avoid	The site is avoiding any significant impacts to designated sites or irreplaceable habitats.
Minimise	Impacts to priority habitats will be avoided. Other impacts to existing biodiversity assets will be minimised by undertaking thorough and accurate ecological assessments of the habitats and species present within the site and undertaking informed further actions to minimised impacts to ecologically significant habitats and protected species.
Compensate/Offset	Detailed habitat compensation measures have been identified using the Statutory Biodiversity Metric. Habitats lost on site will be compensated for by the enhancement and creation of alternate ecologically distinct habitats, including Other Neutral Grassland and Species-rich Native Hedgerow with Trees.

11.8 Conclusions

11.8.1 The site was comprised mainly of Modified Grassland fields grazed by horses with access tracks and Lowland Mixed Deciduous Woodland present on and adjacent the site. Four individual rural trees were also present within the red line boundary, these are to be retained under the current proposed development plan.

11.8.2 The site had a baseline of 2.34 habitat units and 0.00 hedgerow units.

- 11.8.3 The proposed development will result in the loss of 0.41 ha of Modified Grassland at the site. This will be compensated for with the enhancement of 0.43 ha of Modified Grassland to Other Neutral Grassland by planting an EM2 seed mix or similar as per sowing guidance provided by the supplier to ensure success.
- 11.8.4 In addition, 0.20 km of Species-rich Native hedgerow with trees will be planted along the site's western and southern boundaries, with EH1 seed mix or similar sown as a 5 m buffer adjacent to the hedgerow.
- 11.8.5 This will result in a net change of 0.92 area biodiversity units and 1.62 linear units. This represents 39.47% biodiversity net gain.
- 11.8.6 Assuming the successful implementation of the measures described above the Proposed Development would comply with Policy JP-G8 of the Places for Everyone Joint Development Plan and NPPF.

12 NOISE

12.1 Introduction

- 12.1.1 A noise assessment has been prepared by Tetra Tech. The full report accompanies the planning application.
- 12.1.2 Noise surveys have been undertaken and the results used to verify predictions of the short-term and long-term effects of noise from the Proposed Development.
- 12.1.3 The assessment compares the noise from the existing ambient noise climate (based on existing measured LAeq), with the predicted noise level from the proposed scenario from all noise sources associated with the Proposed Development.

12.2 Policy Context

National Policy and Guidance

- 12.2.1 With regard to noise and planning, the NPPF contains the following statement at Paragraph 198:

“Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

(a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;

(b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason [...].”

- 12.2.2 Planning Practice Guidance (PPG) provides further guidance with regard to the assessment of noise within the context of Planning Policy. The overall aim of this guidance, tying in with the principles of the NPPF and the Explanatory Note of the Noise Policy Statement for England (NPSE), is to *“identify whether the overall effect of noise exposure is, or would be, above or below the significant observed adverse effect level and the lowest observed adverse effect level for the given situation.”*

12.2.3 The NPPF, NPSE and PPG do not, however, present absolute noise level criteria which define Significant Observed Adverse Effect Level (SOAEL), Lowest Observed Adverse Effect Level (LOAEL) and No Effect (NOEL) which is applicable to all sources of noise in all situations. Therefore, within the context of the Proposed Development, national planning policy and appropriate guidance documents including 'BS 8233 – Guidance on Sound Insulation and Noise Reduction for Buildings' (2014) and 'BS 4142: 2014 Methods for Rating and Assessing Industrial and Commercial Sound' Section 2.0 presents the noise level criteria used as a basis of this assessment

12.2.4 The PPG also states that neither the NPSE nor the NPPF (which reflects the Noise Policy Statement) expects noise to be considered in isolation, separately from the economic, social and other environmental dimensions of the proposed development.

Local Planning Policy

12.2.5 The Bury UDP sets out the following policies to protect existing amenities and environment from adverse noise impact.

12.2.6 Policy EN7/2 – Noise Pollution states that the Council will not permit:

- *development which could lead to an unacceptable noise nuisance to nearby occupiers and/or amenity users;*
- *development close to a permanent source of noise."*

12.3 Assessment Criteria

12.3.1 In order to enable the assessment of the proposed development in terms of LOAEL and SOAEL, Table 2.1 of the full assessment presents equivalent noise levels and associated actions with the target noise level criteria identified. The noise level criteria detailed below have been derived from standards and design guidance:

- BS 8233:2014 'Guidance on sound insulation and noise reduction for buildings – Code of practice'
- BS4142:2014 'Method for rating industrial and commercial sound'
- World Health Organisations (1999) 'Guidelines for Community Noise'
- IEMA 'Guidelines for Environmental Noise Impact Assessment' (2014)

12.4 Assessment Methodology

- 12.4.1 Three-dimensional noise modelling has been undertaken based on the monitoring data to predict noise levels at a number of locations both horizontally and vertically.
- 12.4.2 Table 12.1 summarises receptor locations that have been selected to represent worst-case sensitive receptors with respect to direct noise from the site. Façades of the nearest noise sensitive properties to the development site have been represented. The locations of the receptors are shown in Figure 5 below.
- 12.4.3 It should be noted that the assessment considers that all items of plant associated with the BESS are assumed to be always fully operational during the daytime and night-time periods. However, the Proposed Development will not operate continuously. Similar developments tend to operate for short periods typically during the peak daytime periods and are rarely used during the night-time hours.

Table 12.1: Noise Monitoring Receptors

Location	Description	Type of Use	Height (m) Daytime/night time
R01	Shore Top Farm	Residential	1.5/1.5
R02	Shore Top Farm	Residential	1.5/4.0
R03	334 Ringley Road West	Residential	1.5/1.5
R04	351 Ringley Road West	Residential	1.5/4.0
R05	265 Ringley Road West	Residential	1.5/4.0
R06	261 Ringley Road West	Residential	1.5/1.5
R07	Ashed Road	Residential	1.5/4.0
R08	Yew Tree Farm	Residential	1.5/4.0
R09	23 Wood Street	Residential	1.5/4.0
R10	159 Ringley Road West	Residential	4.0/4.0
R11	1 Sycamore	Residential	1.5/4.0
R12	5 Hazel Grove	Residential	1.5/4.0
R13	34 Highmeadow	Residential	1.5/4.0
T01	Outwood Trail	Public Footpaths	1.5
T02	Outwood Trail	Public Footpaths	1.5
T03	Irwell Sculpture Trail	Public Footpaths	1.5

T04	Irwell Sculpture Trail	Public Footpaths	1.5
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Figure 5: Noise Monitoring Locations

12.5 Noise Survey

12.5.1 A monitoring survey was undertaken to characterise baseline ambient noise levels currently experienced on the site and to establish the relative local background and traffic noise levels. A baseline monitoring survey was undertaken at Five locations from Thursday 2nd May 2024 to Tuesday 7th May 2024. Attended short term measurements were undertaken at two locations during day, evening and night-time periods with two additional locations being measured unattended over a 187-hour period.

Noise Survey Results

12.5.2 The dominant noise sources found in the area include road traffic noise on Ringley Road West to the south of site. Other contributions to the ambient noise environment consist of birdsong and road traffic noise from distant traffic to the northeast and east of site (A665 and Outwood Road respectively).

12.5.3 Ambient and background noise levels are usually described using the LAeq index (a form of energy average) and the LA90 index (i.e. the level exceeded for 90% of the measurement period) respectively. Road traffic noise is generally described using the LA10 index (i.e. the level exceeded for 10% of the measurement period). For the long-term (LT) locations, the presented LAeq,T and LA10,T are average noise levels whilst the LA90 is the modal noise level of each 5-minute measurement over the stated survey period.

12.5.4 The representative noise levels presented in Table 12.2 have been used to inform the assessment.

Table 12.2: BS 4142:2014 Operational Noise Assessment

Location	Existing Measured Background LAq		Rating Level from plant (LA,Tr)		BS 4142 Score	
	Daytime	Night-time	Daytime	Night-time	Daytime	Night-time
R01	38	31	20	23	-18	-8
R02	38	31	21	22	-17	-9
R03	42	30	15	15	-27	-15
R04	42	30	18	19	-24	-11
R05	42	30	24	25	-18	-6
R06	42	30	22	19	-20	-11
R07	42	30	21	22	-21	-8
R08	42	30	26	28	-16	-2
R09	42	30	26	28	-17	-1
R10	42	30	21	21	-21	-9
R12	38	31	22	25	-16	-6
R13	38	31	30	32	-8	+1

12.5.5 As demonstrated within Table 12.2, the results of the assessment indicate that the BS 4142 noise rating levels at sensitive façades of the existing noise sensitive properties are below the existing daytime and night-time background noise levels except at R13 during the nighttime period where the rating level is up to +1 dB above the existing night-time background level. As such, noise associated with the proposed development will result up to the Lowest Observed Adverse Effect Level (LOAEL) with accordance to the BS 4142 criteria.

Noise Intrusion Assessment

12.5.6 Internal noise levels at nearby sensitive receptors from all sources of potential noise associated with the Proposed Development have been assessed both with windows open, where a reduction from a partially open window of 10 dB has been used, and with windows closed where an assumption of glazing with a sound reduction of 30 dB Rw has been used.

Change in Noise Level Assessment

12.5.7 The assessment compares noise from the existing ambient noise climate (based on existing measured LAeq,T) with the predicted noise level from the proposed scenario from all noise sources associated with the proposed development. The difference between the 'existing' ambient noise level and the predicted 'worst-case proposed' noise level is presented in Table 12.3 below.

Table 12.3: Difference Between Baseline and Proposed Scenarios

Location	Existing LAeq,T (Monitored)		Proposed LAeq,T (Modelled)		Combined LAeq,T		Contribution from Proposed Scheme	
	Daytime	Night-time	Daytime	Night-time	Daytime	Night time	Daytime	Night-time
R01	46.6	49.0	20.4	22.7	46.6	49.0	0.0	0.0
R02	46.6	49.0	21.4	22.1	46.6	49.0	0.0	0.0
R03	49.2	49.5	15.2	15.2	49.2	49.5	0.0	0.0
R04	49.2	49.5	17.8	18.9	49.2	49.5	0.0	0.0
R05	49.2	49.5	24.0	24.5	49.2	49.5	0.0	0.0
R06	49.2	49.5	21.6	19.2	49.2	49.5	0.0	0.0
R07	49.2	49.5	20.9	22.3	49.2	49.5	0.0	0.0
R08	49.2	49.5	26.3	28.1	49.2	49.5	0.0	0.0
R09	49.2	49.5	25.5	28.6	49.2	49.5	0.0	0.0
R10	49.2	49.5	20.6	20.6	49.2	49.5	0.0	0.0
R11	46.6	49.0	22.2	24.7	46.6	49.0	0.0	0.0
R12	46.6	49.0	24.9	27.1	46.6	49.0	0.0	0.0
R13	46.6	49.0	30.3	31.8	46.7	49.1	0.1	0.1

12.5.8 As demonstrated in Table 12.3 the contribution from the proposed development to the existing ambient noise levels are up to +0.1 dB at all sensitive receptors. This is indicative of a negligible short-term impact

as defined by the IEMA 2014 Guidelines for Environmental Noise Impact Assessment. As such, noise levels at all receptors are predicted to fall under the No Observed Adverse Effect Level (NOAEL) during both the daytime and night-time periods.

Tranquillity Assessment

- 12.5.9 An assessment of the existing tranquillity level of the site has been based on the mapping data published in 2007 by The Countryside Charity, formerly known as the Council for the Preservation of Rural England and the Campaign to Protect Rural England (CPRE). This uses a colour coded system and a 500m assessment grid for the whole of England, and a tranquillity rating of between 1 and 10 is assigned (1 being least tranquil and 10 being most).
- 12.5.10 By reference to these maps the site and the immediate surrounding area are assessed as falling into Zones 1 – 4 and is of low tranquillity. There are several public footpaths which interact with the application site and these provide access to Outwood Country Park, which is considered to be an area of relatively greater tranquillity. A section of an existing track off Wood Street will be used as the access track to the proposed site which may indicate a negative effect to the tranquillity of the area. However, it is considered that other access to the areas of greater tranquillity will be maintained.
- 12.5.11 To assess the impact of the proposed development on the tranquillity of the surrounding areas, a change in noise level assessment has been undertaken and presented in Table 12.4.

Table 12.4: Difference Between Baseline and Proposed Scenarios – Tranquillity (Day Time)

Location	Existing LAeq,T (Monitored)	Proposed LAeq,T (Modelled)	Combined LAeq,T	Contribution from Proposed Development
T01	49.2	31.2	49.3	0.1
T02	46.6	40.4	47.5	0.9
T03	46.6	45.8	49.2	2.6
T04	46.6	30.6	46.7	0.1

- 12.5.12 The results presented above show that noise contribution from the proposed development result in an increase in ambient noise levels of up to +2.6 dB on the existing footpaths in proximity to the site. This is indicative of a minor short-term impact as defined by the IEMA 2014 Guidelines for Environmental Noise Impact Assessment. As such, noise levels on the existing footpaths are predicted to result in the Lowest Observed Adverse Effect Level (LOAEL).

12.5.13 Considering the above, no restrictions to areas of relative tranquillity will occur due to the proposed development.

12.6 Conclusions

12.6.1 The BS 4142 noise rating levels at the nearest sensitive receptors fall into the Lowest Observed Adverse Effect Level (LOAEL) when compared against the existing daytime and night-time background noise levels (LA90,T).

12.6.2 The cumulative operational noise levels from all proposed noise sources associated with the site were also assessed against the BS 8233/WHO criteria. Noise levels at all sensitive receptors are predicted to fall within the No Observed Adverse Effect Level (NOAEL).

12.6.3 Furthermore, the change in ambient noise levels due to the operation of the Proposed Development would result in a negligible short-term impact at all sensitive receptors and therefore fall within the No Observed Adverse Effect Level (NOAEL).

12.6.4 An assessment of tranquillity has been undertaken. The results indicate that no restrictions to areas of relative tranquillity will occur due to the proposed development.

12.6.5 It has been predicted that on-site operational noise effects associated with the Development will be within the Lowest Observed Adverse Effect Level (LOAEL), and therefore the development will have a low impact in relation to noise.

12.6.6 It is therefore considered that the proposals will comply with saved UDP Policy EN7/2 and NPPF.

13 FLOOD RISK AND DRAINAGE

13.1 Introduction

- 13.1.1 Neo Environmental Ltd has undertaken a Flood Risk Assessment (“FRA”) and Drainage Strategy (“DS”). The full report accompanies the application.
- 13.1.2 The aim of this assessment is to identify the baseline geological and hydrological conditions of the site and surrounding area; to assess the potential impacts of the Proposed Development during the construction, operation and decommissioning phases; to identify the risk of flooding at the proposed Application Site; and to recommend mitigation measures where appropriate.
- 13.1.3 This Flood Risk Assessment has been prepared in accordance with National Planning Policy Framework, December 2024 and Planning Practice Guidance, last updated February 2025.

13.2 Planning Policy

NPPF

- 13.2.1 Policy on planning and flood risk in the NPPF is dealt with at paragraphs 170-175 in Chapter 14 Meeting the challenge of climate change, flooding and coastal change.
- 13.2.2 Paragraph 175 states that the sequential test should be used in areas known to be at risk now or in the future from any form of flooding.
- 13.2.3 Flood planning policy and guidance for England is contained within the National Planning Policy Framework, December 2024 and, in relation to flood risk, it states:

“A site-specific flood risk assessment should be provided for all development in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving:

- *sites of 1 hectare or more;*

- 13.2.4 As the Proposed Development is over 1 hectare in size then a site-specific FRA is necessary.

Places for Everyone Joint Development Plan Document

- 13.2.5 Policy JP-S4: Flood Risk and the Water Environment states:

“An integrated catchment-based approach will be taken to protect the quantity and quality of water bodies with reference to the North West River Basin Management Plan and managing flood risk, by amongst other things:

3. Locating and designing development so as to minimise the impacts of current and future flood risk, including retrofitting or relocating existing developments, infrastructure and places to increase resilience to flooding;

4. Expecting developments to manage surface water runoff through sustainable drainage systems and as close to source as possible. Development should achieve greenfield run-off rates unless it is demonstrated to be impracticable.”

13.3 Baseline

- 13.3.1 The Environment Agency (EA) Mapping shows that the Proposed Development is located outside the areas at risk of fluvial flooding and wholly located within Flood Zone 1.
- 13.3.2 The proposed type of development is classed as ‘Essential Infrastructure’ and therefore development in Flood Zone 1 is deemed appropriate.
- 13.3.3 In addition to fluvial and coastal flood risk, the EA also provide surface water flood map. Where the EA map demonstrates areas of surface water risk, as well as aerial maps and site visit photos, were studied to determine if there will be surface water flooding. This indicated that there were no areas at risk of pluvial flooding.
- 13.3.4 It has been demonstrated that the impact of the Proposed Development on surface water runoff is minimal due to the small amount of impermeable infrastructure (7% of the overall Application Site Area) proposed for the Application Site. However, drainage in the form of SuDS has been proposed so the operational site discharges surface water at the greenfield run off rate (QBar).
- 13.3.5 The soil class within the Application Site is Class 4 which has a Standard Percentage Runoff (SPR) of 0.47 and will likely provide poor infiltration opportunities. Infiltration testing will be conducted post consent to confirm whether infiltration drainage is suitable. This will inform the detailed drainage design which will also be undertaken post consent and should dealt with by means of a suitably worded condition.

13.4 Flood Risk Assessment

Sequential Test

- 13.4.1 The Sequential Test ensures that a sequential approach is followed to steer new development to areas with the lowest probability of flooding. The flood zones as refined in the Strategic Flood Risk Assessment for the area provide the basis for applying the Test. The aim is to steer new development to Flood Zone 1 (areas with a low probability of river or sea flooding). Where there are no reasonably available sites in Flood Zone 1, local planning authorities in their decision making should take into account the flood risk vulnerability of land uses and consider reasonably available sites in Flood Zone 2 (areas with a medium probability of river or sea flooding), applying the Exception Test if required. Only where there are no reasonably available sites in Flood Zones 1 or 2 should the suitability of sites in Flood Zone 3 (areas with a high probability of river or sea flooding) be considered, taking into account the flood risk vulnerability of land uses and applying the Exception Test if required.

Fluvial and Coastal Flood Risk

- 13.4.2 The EA Mapping shows that the Proposed Development is located outside the areas at risk of fluvial flooding and wholly located within Flood Zone 1.
- 13.4.3 The proposed type of development is classed as 'Essential Infrastructure' and therefore development in Flood Zone 1 is deemed appropriate.
- 13.4.4 The Sequential Test and Exception Test are not required in this instance.

Pluvial Flood Risk

- 13.4.5 In addition to fluvial and coastal flood risk, the EA also provide surface water flood maps . This shows the areas at risk of surface water flooding within the Application Site.
- 13.4.6 This indicated that there were no areas at risk of pluvial flooding.

Groundwater Flood Risk

- 13.4.7 Groundwater flooding is a "hidden" risk that is often difficult to distinguish from other types of flooding. For example, rising groundwater often forms in low-lying areas which are also susceptible to the accumulation of surface water.

13.4.8 Local groundwater levels often respond to water levels within nearby watercourses and pond in those same areas that are at risk of pluvial flooding, due to the low-lying nature of those areas. Therefore, it can be assumed that groundwater flood levels are likely to be the same as those for pluvial flooding and below the lowest part of the panel.

13.4.9 Based on the above, the risk of flooding from groundwater to the Proposed Development is low.

Site Access Points

13.4.10 The access point into the site will be from Wood Street. All surface waters should be directed into the site, with no surface water flows from the Proposed Development directed towards the public highway.

13.5 Drainage Strategy

Introduction

13.5.1 There is a requirement in the NPPG for proposals to incorporate surface water drainage measures that have a neutral or beneficial effect on the risk of flooding both on and off the Application Site.

13.5.2 Surface water arising from a developed site should, as far as is practicable, be managed to mimic the surface water flows arising from the site prior to the Proposed Development, while reducing the flood risk at the site itself and elsewhere.

Site and Project Descriptions

13.5.3 The majority of the compound will be made up of crushed aggregate which will be compacted to create a surface, however, will still have permeable properties and rainwater will soak into the ground beneath at the same rate that it presently does.

13.5.4 The grid compounds are mostly permeable land, however there are a number of infrastructure parts which will require small foundations. To cater for this within the drainage calculations, a betterment figure of 20% has been included.

13.5.5 Similarly, any rainwater falling onto the permeable access tracks will soak into the ground beneath at the same rate that it presently does.

13.5.6 In its current greenfield state, the Application Site is considered to be 100% undeveloped. As a result of the Proposed Development, the extent of impermeable hardstanding introduced will be approximately 487.1m² or 3.9% of the total site area.

Existing Drainage Arrangements

- 13.5.7 The surface water runoff rate resulting from the Proposed Development has been based on the areas of hardstanding introduced, which will have a lower permeability than the existing greenfield composition.
- 13.5.8 Using this approach, the runoff rate for the 1-in-100-year, 360-minute storm event, inclusive of the 40% climate change allowance would be a combined 18m³, across the site areas, if left unmanaged.

Proposed Drainage Arrangements

- 13.5.9 The use of SuDS is generally accepted to have greater benefits than conventional drainage systems.
- 13.5.10 The surface water drainage strategy for the Proposed Development seeks to provide a sustainable and integrated surface water management scheme for the whole Application Site and aims to ensure no increase in downstream flood risk by managing discharges from the Proposed Development to the local water environment in a controlled manner.
- 13.5.11 To comply with current policies, guidance and best practice, the volume and quality of surface water runoff discharged off-site from the Proposed Development at this Application Site will need to be controlled using SuDS.
- 13.5.12 In compliance with the above, the drainage strategy has been developed to meet the following key principles:
- Mimic existing (greenfield) drainage arrangements as far as possible;
 - Avoid increases in the greenfield rate, volume and frequency of offsite discharge;
 - Avoid significant deterioration in water quality of discharges and no detrimental impact in downstream water quality;
 - Achieve the above criteria for all storms up to and including the 100-year event; and,
 - Incorporate an allowance for climate change (40%).

Indicative Surface Water Storage Requirements

- 13.5.13 Indicative storm water storage volumes have been estimated using Causeway's Drainage Design Flow software. The storage calculations include up to the critical storm 100-year return period event (including a 40% allowance for climate change) and the design limits discharge rates back to greenfield runoff rates.

The results are enclosed in Appendix C of the FRA. These are estimated from the new surfaces added to the Proposed Development.

Proposed Drainage Strategy

- 13.5.14 The drainage strategy will consist of an infiltration drain connecting to an attenuation structure (likely to be a detention basin or SuDS Pond) to the northwest outside the main battery storage compound. The attenuation structure will be designed to hold a volume of 41.0m³. As the transformers will hold a volume of oil, this feature will be bunded and the drainage from here will lead to a Class 1 full retention separator.
- 13.5.15 The SuDS features will be implemented during the early construction phase of the Proposed Development and will be planted with vegetation to protect against soil erosion. They will be maintained throughout the lifespan of the Proposed Development, generally in accordance with the recommendations in the appropriate guidance.

Designing for Exceedance Events

- 13.5.16 Overland flow routes will not be altered by the construction of the Proposed Development as it is not proposed to significantly vary ground levels. The outline drainage has been designed so that flooding will not occur for up to and including the 1-in-100-year storm event (including 40% climate change consideration).
- 13.5.17 Should an exceedance of this 1 in 100-year critical storm event occur, surface water will flow the same way as at present, into the surrounding field drains. There are no sensitive receptors between the Application Site and the existing watercourses.

13.6 Summary and Conclusions

- 13.6.1 The Environment Agency (EA) Mapping shows that the Proposed Development is located outside the areas at risk of fluvial flooding and wholly located within Flood Zone 1.
- 13.6.2 The proposed type of development is classed as 'Essential Infrastructure' and therefore development in Flood Zone 1 is deemed appropriate.
- 13.6.3 It has been demonstrated that the impact of the Proposed Development on surface water runoff is minimal due to the small amount of impermeable infrastructure (3.9% of the overall Application Site Area) proposed for the Application Site. However, drainage in the form of SuDS has been proposed so the operational site discharges surface water at the greenfield run off rate (QBar).

- 13.6.4 The drainage strategy will consist of an infiltration drain connecting to an attenuation structure to the northwest outside the main battery storage compound.
- 13.6.5 The SuDS features will be implemented during the early construction phase of the Proposed Development and will be planted with vegetation to protect against soil erosion. They will be maintained throughout the lifespan of the Proposed Development, generally in accordance with the recommendations in the appropriate guidance.
- 13.6.6 This FRA and DS demonstrates that the Proposed Development will not increase flood risk away from the Application Site during the construction, operation and decommissioning phases.
- 13.6.7 The Proposed Development therefore complies with Policy JP-S4 and NPPF.

14 CULTURAL HERITAGE ASSESSMENT

14.1 Introduction

- 14.1.1 GHC Archaeology Group has undertaken a Cultural Heritage Assessment. The full Assessment accompanies the application.
- 14.1.2 The main objective of the assessment is to identify the potential for cultural heritage assets to be impacted by the Proposed Development. This has been done by examining a variety of evidence for upstanding and buried remains of heritage interest including Listed Buildings and non-designated heritage assets within 1km of the Site and designated heritage assets within 1km of the Site. The assessment is based upon data obtained from publicly accessible archives as described in Data Sources.

14.2 Planning & Legislative background

Legislative Framework

- 14.2.1 The applicable legislative framework is summarised as follows:
- Ancient Monuments and Archaeological Areas Act (AMAAA) 1979;
 - Planning (Listed Buildings and Conservation Areas) (P(LBCA)) Act 1990;
 - Town and Country Planning Act (TCPA) 1990;
 - Levelling-up and Regeneration Act (LuRA) 2023

National Planning Policy Framework, December 2024 (Last Updated February 2025)

- 14.2.2 Chapter 16 of NPPF is concerned with 'Conserving and enhancing the historic environment' and recognises that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. Paragraph 207 states that planning decisions should be based on the significance of the heritage asset, and that the level of detail supplied by an applicant should be proportionate to the importance of the asset and should be no more than sufficient to review the potential impact of the proposal upon the significance of that asset.

Planning Practice Guidance

- 14.2.3 The relevant section is entitled 'Conserving and enhancing the historic environment'. The guidance given in this section sets out the best practice to applying government policy in the NPPF. It also provides clear definition of the terms used to identify heritage interest and how this applies to understanding 'significance' in reference to heritage-related planning policy, i.e. archaeological interest, architectural and aesthetic interest, and historic interest.

Local Planning Policy

Places for Everyone (PfE) joint development plan document (DPD)

- 14.2.4 Policy JP-P2: Heritage states that:

Development proposals affecting designated and non-designated heritage assets and/or their settings will be considered having regard to national planning policy.

14.3 Methodology

- 14.3.1 The Historic England National Heritage List for England (NHLE) and the Greater Manchester Historic Environment Records (HER) have been consulted for all records within the study site and a surrounding 1km search area. A gazetteer of all records is provided in Appendix 1 of the full assessment and their locations marked on a plan in Figures 1-3.
- 14.3.2 Online repositories were consulted for historical maps, plans and relevant documentary sources, including published and unpublished documentary sources, in accordance with the guidelines laid down by the ClfA (2020).
- 14.3.3 The North West Regional Research Framework was also consulted.
- 14.3.4 A site visit was undertaken on 22nd July 2024 in overcast conditions with some light rain to provide an assessment of the character of the study site and appraise the potential impact of the proposed development on any heritage assets (see Plates 1 to 6 in the HEDBA).

Assessment Criteria

Significance

- 14.3.5 Significance is defined in the NPPF as “the value of a heritage asset to this and future generations because of its heritage interest”. The interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset’s physical presence, but also from its setting.
- 14.3.6 There are no single defining criteria that dictates the overall asset significance; each asset has to be evaluated against the range of criteria listed above on a case-by-case basis. These values are not intended to be restrictive but are identified in order to help establish a method for thinking systematically and consistently about the heritage values that can be ascribed to a place and contribute to a heritage asset’s significance.
- 14.3.7 Assessment of significance has been undertaken in accordance with the Historic England’s Statements of Heritage Significance.

Setting

- 14.3.8 NPPF defines the setting of a heritage asset as: “The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve”.
- 14.3.9 Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral’
- 14.3.10 Historic England’s Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets Setting (2017) was used to inform the methodology for this assessment which follows steps i) to iv) outlined in the guidance.

Definition of Harm

- 14.3.11 Current guidance by Historic England is that ‘change’ does not equate to ‘harm’. The NPPF and its accompanying PPG effectively distinguish between two degrees of harm to designated heritage assets – substantial and less than substantial. Paragraph 214 of the NPPF states that:

‘Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss...’

14.3.12 Paragraph 215 of NPPF states that:

“Where a development proposal would lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposals”

14.3.13 In assessing harm to non-designated heritage assets, the NPPF does not differentiate between substantial and less than substantial harm and is clear that no additional weight is added to the asset in determining the application.

14.4 Archaeological and Historical Background

14.4.1 A 1km study area has been utilised for the identification of all known heritage features and known previous archaeological interventions to help predict whether any similar hitherto unknown archaeological remains are likely to survive within the site and thus be impacted by the Proposed Development and utilised for the assessment of potential effects on the setting of all designated heritage assets.

Designated Heritage Assets

14.4.2 There are no designated heritage assets within the study site. Within the surrounding 1km search area there are three listed buildings, all of which are Grade II and at a distance of between c. 745m and 845m to the north of the study site. These have been scoped out of further assessment as they are screened from the study site by vegetation, the built environment or topography and have no historical functional association.

Non-designated Heritage Assets

14.4.3 Bury Council holds a list of locally important built heritage assets. None of these non-designated heritage assets are within the study site or its immediate surroundings.

Recorded Archaeology and Potential

14.4.4 There are two archaeological assets recorded in the HER within the study site. This includes the former course of the Clough Side Colliery tramroad (HER 4500.1.0) as it briefly runs along the Ringley Road West as it crosses north to south. The second archaeological asset is the former line of the East Lancashire Railway Clifton Accrington and Colne (HER 2932.1.0) which also crosses the portion of the study site aligned along Ringley Road West to the south. It then runs almost parallel to the east side of the access track leading to the BESS and the cable route to the north, at an approximate distance of 40m, and is used

as a public right of way (Figure 2). On the west side is Yew Tree Farm (HER 4034.1.0), which sits immediately to the south of the access track proposed for maintenance use.

Previous Archaeological Investigations

- 14.4.5 Four archaeological investigations have been undertaken within the surrounding 1km search area. These comprise a building recording survey at Scotson Fold in 1997 (EGM3207) and an archaeological desk-based assessment of Millenium Wood in 2005 (EGM3776) to the north and east of the study site. Two additional archaeological investigations along infrastructure routes were carried out to the south of the study site. The first was for the purpose of a proposed link road, the Greater Manchester Western and Northern Relief Road M62-M66 Section, in 1990 (EGM762) and comprised desk-based assessment and field survey. The second was for the West-East Link Pipeline between 2009-11 and included desk-based assessment, strip, map and sample, trenching and a monitoring works (EGM5341).

Prehistoric (c. 9500 – c. AD 43)

- 14.4.6 There is no evidence for prehistoric activity recorded in the HER within the study site or the surrounding 1km search area.

Roman Period (c. AD 43 – c. AD 410)

- 14.4.7 There is no evidence for Roman activity within the study site or the surrounding 1km search area.

Medieval Period (c. AD 410 – c. 1540)

- 14.4.8 There is no record of any archaeological remains dating to the medieval period in the HER for within the study site or the surrounding 1km search area.

Post-medieval, Industrial and Modern Periods (c.1540 – Present)

- 14.4.9 There are two heritage assets recorded in the HER within the portion of the study site along Ringley Road West in the south. This includes the former course of the Clough Side Colliery tramroad (HER 4500.1.0) and the former line of the East Lancashire Railway Clifton Accrington and Colne (HER 2932.1.0).
- 14.4.10 All of the heritage assets recorded in the HER for the surrounding 1km search area date to the post-medieval, industrial and modern periods. The majority of these heritage assets relate to buildings or unstratified finds which are of a well-defined extent that generally add little to the understanding of the study site's archaeological potential. They are recorded in the gazetteer (Appendix 1).

14.5 Assessment of Significance

- 14.5.1 Paragraph 207 of the NPPF states that planning decisions should be based on the significance of the archaeological asset, and that the level of detail supplied by an applicant should be proportionate to the importance of the asset and should be no more than sufficient to review the potential impact of the proposal upon the significance of that asset.
- 14.5.2 It is recognised that not all parts of a heritage asset will necessarily be of equal significance. In some cases, certain elements could accommodate change without affecting the significance of the asset. Change is only considered harmful if it erodes an asset's significance. Understanding the significance of any heritage assets affected and any contribution made by their setting (paragraph 208, NPPF 2024) is therefore fundamental to understanding the scope for and acceptability of change.
- 14.5.3 There are no designated heritage assets considered sensitive to the proposals.
- 14.5.4 From archaeological evidence within the surrounding environs, the study site has been assessed as having a low potential to contain evidence dating to any archaeological period. Furthermore, the study site has been extensively disturbed due to its use for spoil storage during the industrial period which appears, more recently, to have been cleared.

14.6 Impact Assessment

- 14.6.1 Any impact to below-ground remains will be intrusive in the area of the BESS and the cable route.

Previous Impacts

- 14.6.2 Until the mid-late 19th century, the study site would appear to have always remained undeveloped and used for agricultural purposes, when it was later used for spoil storage associated with the colliery until the mid-20th century. The spoil appears to have been more recently cleared from the study site and it is likely that the study site has been adversely disturbed and contaminated.

Designated Heritage Assets

- 14.6.3 There will be no direct or indirect impact to any designated heritage assets as a result of the proposed development.

Potential Sub-Surface Archaeological Remains

- 14.6.4 There is a low potential for evidence dating to any archaeological period to be present within the study site, with the likelihood that there has been adverse disturbance to any sub-surface deposits as a result of the use of the study site for colliery spoil storage and subsequent clearance. On this basis, there is no evidence to suggest that the study site contains, or has the potential to contain, archaeological remains of sufficient importance to preclude or constrain development.

14.7 Conclusions

- 14.7.1 The assessment has established that there are no designated assets within the study site and that the proposed development will present no harm to the significance of any designated heritage asset in the wider area.
- 14.7.2 Assessment of the available archaeological records, combined with analysis of historical mapping and the results of previous archaeological investigations in the search area, show that the study site has a low potential for evidence dating to any archaeological period to be present. Furthermore, it is likely that there has been adverse disturbance to any sub-surface deposits as a result of the use of the study site for colliery spoil storage and subsequent reclamation. Consequently, there is no evidence to suggest that the study site contains, or has the potential to contain, archaeological remains of sufficient importance to preclude or constrain development.
- 14.7.3 The posed development would therefore comply with PfE Policy JP-P2 and NPPF.

15 TRAFFIC AND TRANSPORT

15.1 Introduction

- 15.1.1 A Construction Traffic Management Plan (CTMP) accompanies the application and has been produced to address the highways and transport matters arising from both the construction of the site and its general operation/maintenance once built out.
- 15.1.2 The report also addresses the highway and transportation matters raised by Bury Council as part of the consultation process.

15.2 Routing and Site Access

Local Highway Network

Wood Street / PRoW 7SS

- 15.2.1 Wood Street is a no-through route that has a north to south alignment, along the eastern boundary of the application site. PRoW 7SS also routes along Wood Street. Wood Street is surfaced for its first c. 100m from the Wood Street / Ringley Road West (A667) junction, where at this point, a barrier is present, and the track becomes a single-track unbound lane (PRoW 7SS.)
- 15.2.2 At its northern extent, the Wood Street / PRoW 7SS routes west towards the River Irwell, whilst at its southern extent, it forms the minor arm of a priority junction with Ringley Road West (A667).
- 15.2.3 Wood Street, along its first c.100m from its junction with Ringley Road West (A667), serves 12 terraced dwellings and for the first circa 30m north of the junction with Ringley Road West, there is no footway present, with the PRoW/Wood Street acting as a shared surface.
- 15.2.4 A footway is then present along the frontage of the dwellings that front onto Wood Lane. The footway terminates at the northernmost dwelling, where pedestrians are then accommodated along the PRoW route.
- 15.2.5 Wood Street is subject to a 30mph speed limit and benefits from street lighting.

Ringley Road West (A667)

- 15.2.6 Ringley Road West (A667) routes east to west, approximately 500m to the south of the application site. At its western extent, it becomes Kearsley Road (A667) at priority junction with Prestolee Road,

approximately 750m to the northwest of the Wood Street / Ringley Road West (A667) junction. From here, the A667 continues to route west to the A666 (Motorway) and into Kearsley. At its eastern extent, it becomes Ringley Road at a priority junction with Ringley Mews. From here, the A667 continues to route east into Whitefield.

- 15.2.7 Ringley Road West benefits from a continuous footway along the northern side of the carriageway and a footway that commences along the southern side of the carriageway, opposite the Wood Street / Ringley Road West (A667).
- 15.2.8 Ringley Road West is subject to a 40mph speed limit, in the vicinity of the application site, and benefits from street lighting.

Local Highway Safety

- 15.2.9 For the purpose of this assessment, Personal Injury Collision (PIC) data has been obtained from Transport for Greater Manchester for the most recent five-year period available at the time of the request, within the vicinity of the application site, between 1st July 2019 – 30th June 2024.
- 15.2.10 The Transport for Greater Manchester report indicates the location of collisions and the section of highway along Ringley Road West (A667), approximately 200m to the east and west of the Wood Street / Ringley Road West (A667) junction, which the application site will take construction access from. The full data is attached at Appendix D of the man report.
- 15.2.11 The data indicates that there have been 2 PICs in this five-year period, which have both been classified as 'serious' in terms of severity. These PICs resulted in 2 serious casualties and 2 slight casualties.

Analysis of PICs

- 15.2.12 The number and distribution of PICs is considered typical for this category of highway, which is a major route between Kearsley and Whitefield. The record of only 2 PICs in the studied area does not suggest that there are any discernible patterns of highway safety concern within the vicinity of the application site.
- 15.2.13 The lack of any clustering and sporadic nature of these PICs indicates that there is no inherent geometric issue with the local highway network, and that instead these PICs likely occurred primarily as a result of driver error, particularly given that the collision reports identified that driver and pedestrian behaviours were contributory factors.

15.2.14 As there is no pattern or history of collisions in the immediate locality of the site associated with a dangerous highway network, it is considered that there is no existing safety issue on the local highway network that could be exacerbated by the development proposals.

Construction Traffic Routing to Site

15.2.15 All construction traffic can route to/from Ringley Road West. It is important to highlight that all large vehicles, including 16.5m articulated vehicles will route to/from the west only, due to limitations with the right-turn from the east into/ from Wood Street. This is expanded upon below and supported by swept path analysis assessment.

15.2.16 There are two construction routes proposed to accommodate construction traffic.

- Route 1 - Construction traffic travelling to/from the north, south and west will be required to route to/from the A666(M) / A6053 / Bolton Road (A666) roundabout, along a short section of Bolton Road (A666) and then along the A667 to the junction with Wood Street. This route is suitable for all vehicles.
- Route 2 - Construction traffic travelling to/from the east will be required to route to/from the M60 (Manchester Outer Ring) / Bury New Road roundabout, then north along Bury New Road and then east onto the A667 at the Bury New Road / Stanley Road / A667 crossroads junction, up to the junction with Wood Street. This route is not suitable for vehicles over 16.5m in length as they are unable to suitably access Wood Street from this direction. This will be made clear to all delivery drivers.

15.2.17 All routes to the site have been selected to avoid various weight and width restriction located on the local highway network. The routes selected are all two-way carriageways, or A Roads or along a Motorway, indicating that safe and suitable access by HGVs is achievable to the site access.

15.2.18 The proposed routing strategy is presented on the plan contained at Appendix E of the full report.

Construction Access

15.2.19 For the purpose of construction, temporary access will be achieved from Wood Street via a new gated access, immediately north of the northernmost dwelling on Wood Street, into the field and route along a temporary access track into the application site. The temporary access track within the fields will comprise heavy-duty roadway matting. At the point where the access track crosses PRow 9SS to the north, a gate will be in place to ensure pedestrian priority is maintained.

15.2.20 Swept path analysis of the largest delivery vehicles expected to access the site is provided at Appendix F, which demonstrates an articulated lorry accessing and egressing the site in a forward gear, with vehicles parked in appropriate locations along Wood Street to enable this.

Access Visibility

15.2.21 To determine the visibility splays required at the Wood Street / Ringley Road West (A667) an Automatic Traffic Count (ATC) was undertaken on the adjacent highway. The ATC was undertaken from Saturday 13th July 2024 to Friday 19th July 2024, with the full results provided at Appendix G in the CTMP.

15.2.22 Based on the existing arrangements and landscape, the required visibility is achievable, within the extent of the adjacent adopted highway.

Pedestrian Visibility

15.2.23 Visibility at the proposed gated access from/onto Wood Street / PRoW 7SS shows that suitable pedestrian visibility is achievable along the route. To the north, there is a barrier that prohibits public vehicles utilising the PRoW, including the traffic associated with development proposals.

Operational / Maintenance Access

15.2.24 For the purpose of maintenance / operation, the existing track / PRoW 9SS (west of Wood Street) will be utilised.

15.2.25 This access point is regularly used by larger vehicles, such as horseboxes and trailers, and a swept path analysis of the largest vehicle expected to access the site at this access point is provided at Appendix K, which demonstrates a fire tender accessing and egressing the access point in a forward gear. Post construction, the majority of regular vehicle trips being undertaken by a light van or a 4x4. It is anticipated that post-planning, there will be no more than two visits to per month associated with the operation / maintenance of the site.

15.3 Site Management

Construction Works

15.3.1 Construction at the site will be permitted to be carried out Monday to Friday 07:00 – 19:00, and Saturdays 08:00 – 13:00. No construction or deliveries will take place on Sundays or Bank Holidays.

15.3.2 Deliveries will also be required to conform to these operational times. Where possible, deliveries will be scheduled outside of the typical network peak hours of 08:00 – 09:00 and 17:00 – 18:00, which will ultimately minimise the temporary impact on the local highway network.

15.3.3 The construction phase is estimated to take place over a period of up to 20 weeks (5 months).

Deliveries

15.3.4 As stated, deliveries will not occur outside of the construction times of 07:00 – 19:00, Monday to Friday, and 08:00 – 13:00 on Saturdays. On weekdays, best effort will be made to avoid deliveries during 08:00 – 09:00 and 17:00 – 18:00. No deliveries will occur on Sundays or Bank Holidays.

15.3.5 The largest delivery vehicle that will be required to access the site is a 16.5m articulated lorry.

15.3.6 It will be the responsibility of the appointed contractor to ensure the site has the capacity to receive deliveries without impacting the local highway network.

15.3.7 Local residents of Wood Street will be informed by the contractor as and when the delivery vehicles are going to need to access the site.

Construction Compound

15.3.8 A temporary construction compound will be formed within or adjacent to the site. This land will be used for facilities, storage and parking during the construction period and will be removed once the proposed development is operational.

15.3.9 Delivery vehicles will access the temporary compound via the proposed gated access points, unload, and manoeuvre within the compound to egress in a forward gear. The extent of land within the Applicant's control indicates that there is sufficient space for the temporary installation of welfare facilities, storage, parking, and HGV turning.

15.3.10 The exact location of the construction compound is subject to the appointed contractor and is subject to being moved as the site is built out.

15.3.11 An indicative plan illustrating the location of the construction compound is attached at Appendix M of the CTMP.

Parking

- 15.3.12 It is estimated that a maximum of 15 construction workers will be on site during the construction period. In order to accommodate vehicles associated with the construction workers, dedicated car parking for workers at the site will be provided within the boundary of the application site. At least 15 car parking spaces will be provided on-site. The exact number of required spaces will be set out prior to the commencement of works. All car parking will occur within the site.

Banksmen

- 15.3.13 All on-site construction vehicles will enter and exit the site in a forward gear, utilising the available space to manoeuvre.
- 15.3.14 Appropriately trained, qualified, and certified banksmen will be in place to assist in the guidance of heavy and large construction / delivery vehicles from the junction with Wood Street and supervise unloading; it is anticipated that such person (s) will form part of the contractor team and will have additional duties to undertake.

Road Closures

- 15.3.15 It is not anticipated that there will be a requirement for any road closures on the local highway network.

Maintaining Signage

- 15.3.16 Maintaining signage and barriers associated with the site will be the responsibility of the contractor, it is not anticipated that the regime of signage, barrier inspection and maintenance will have a severe impact on the surrounding highway network.

15.4 Forecast Trip Attraction

- 15.4.1 The Applicant has supplied an indicative break down of the proposed construction of the BESS, based on a 20-week delivery and construction schedule, of which this Chapter provides a summary.

Staff Trips and Parking

- 15.4.2 A maximum of up to 15 construction workers are anticipated to be on site during peak times during the construction period.

- 15.4.3 The location of where staff will travel from is unknown at this stage as it will depend on the appointed contractor. Parking will be provided for construction contractors within the site and as such no overspill car parking will occur on the local highway network.
- 15.4.4 It is anticipated that the staff members will attract a maximum of 30 vehicle movements a day across a 26 day working month, over a period of 20 weeks. It is likely to be less as car sharing will be encouraged by the contractor.

Construction Vehicle Trips

- 15.4.5 The construction phase includes the preparation of the site, which involves the delivery of welfare units and construction machinery, installation of internal maintenance track access roads, sub construction work as well as work on foundations.
- 15.4.6 The construction period will include the use of Heavy Goods Vehicles (HGVs) to bring the BESS equipment onto the site and this will be strictly managed to ensure that vehicle movement is controlled and kept to a minimum. It should be noted that the construction of this BESS does not require equipment to be delivered by abnormal loads (i.e. vehicles over 16.5m in length).
- 15.4.7 Table 15.1 summarises the heavy goods movements that could be associated with the construction period provided by the Applicant, attached in Appendix N in the CTMP.

Table 15.1: Forecast Deliveries

Activity	Vehicle Size	Two-way Vehicle Movements across 20 week period
Site Set Up and Ongoing Management (including fencing, water/waste deliveries, site huts etc)	Various sizes with around 70% being 8-10m rigids and the remaining 30% being 16.5m articulated vehicle	184 trips (92 deliveries)
Batteries associated infrastructure and cabling delivery	16.5m articulated vehicle	140 trips (70 deliveries)
Storage and Substations	16.5m articulated vehicle	24 trips (24 deliveries)
Aggregate (Access Track)	32 tonne tipper lorry	100 trips (50 deliveries)
Concrete and Foundation Steel (Battery/Substation Base)	32 tonne tipper lorry	210 trips (105 deliveries)
Total		685 trips

15.4.8 In summary, the site is forecast to require 329 vehicles making deliveries during the temporary construction period of 20 weeks. Of these 329 deliveries, it has been advised by the Applicant that only 17 of these deliveries (34 trips) will be undertaken by a 16.5m articulated vehicle, with the remaining deliveries to be undertaken on smaller rigid truck vehicles. Based on the information set out in Appendix M, the site will attract the following across the 20-week period, on-average:

- a) Weeks 1 – 4: An average of 4 HGV trips per day
- b) Weeks 4 – 8: An average of 10 HGV trips per day
- c) Weeks 8 – 12: An average of 8 HGV trips per day
- d) Weeks 12 – 16: An average of 2 HGV trips per day
- e) Weeks 16 – 20: An average of 2 HGV trips per day

15.4.9 In addition to delivery vehicle trips, it is forecast that there will be a maximum of 15 vehicles per day associated with construction workers, therefore resulting in 30 two-way vehicle trips per day during the temporary construction period, over a 26-working day month. It is also worth noting that these vehicles will be a mixture of vans and cars.

15.4.10 It is forecast that the construction of the site will attract a maximum of 32-40 trips per day including deliveries and construction workers, for a period of up to 20-week (5 months).

Operational Phase Vehicle Trips

15.4.11 Once operational, there are anticipated to be around 2 visits a month to the site to undertake maintenance. These vehicle trips would typically be made by a light van or 4x4 vehicle and would access and egress the site via the PROW 9SS access route, located to the west of Wood Street.

15.5 Mitigation Measures for Noise, Vibration, Dust and Dirt

15.5.1 Wheel-washing facilities will be provided at the construction compound area, therefore construction and delivery vehicles exiting the site will not take mud or debris onto the adjacent highway or PROW.

15.5.2 It is proposed that wheel-washing will be undertaken via washing station, anticipated to be located immediately prior to exiting onto Wood Street. The exact placement and provision of wheel washing facilities will fall to the appointed contractor.

15.6 Summary & Conclusions

15.6.1 The local highway network is suitable to accommodate traffic arising from the temporary construction period, with no existing highway safety concerns.

15.6.2 Safe and suitable routes are available to the site, avoiding weight restrictions.

15.6.3 There is no observable pattern of vehicle collisions on the local highway network in the vicinity of the site.

15.6.4 The proposed access arrangements are suitable to allow access by HGVs associated with the construction of the site.

15.6.5 There is sufficient land available within the red line boundary to accommodate welfare and storage facilities, as well as parking for workers.

15.6.6 Once operational, the site will attract a small number of trips per month for maintenance purposes. During the temporary 20-week construction period, it is forecast that there will be between approximately –32-40 vehicles trips per day, including HGVs and construction workers.

15.6.7 Forecast trip attraction indicates that the proposals will not have a 'severe' impact on the local highway network.

- 15.6.8 Measures will be incorporated to reduce the impact on the local highway network during the construction phase, in terms of mud and debris.
- 15.6.9 In conclusion the proposed development will not have a severe impact upon the safety or operation of the surrounding local highway network, in relation to Paragraph 116 of the NPPF.

16 GROUND CONDITIONS

16.1 Introduction

- 16.1.1 Brownfield Solutions Limited (BSL) has carried out a desk-based Phase I Geo-Environmental Assessment Report. The full report accompanies the application.
- 16.1.2 The objectives of this assessment were to determine the environmental setting and ground conditions of the site, highlighting potential areas of concern that may govern the redevelopment.
- 16.1.3 The scope of works comprises a Phase I Assessment and site walk-over, with a review of the site, surroundings, historical uses and environmental setting in order to develop a preliminary Conceptual Site Model (CSM).

16.2 Site Description

- 16.2.1 A site reconnaissance survey was carried out at the site on 24th April 2024.
- 16.2.2 The site comprises an open field of grassland, which is the proposed main development area. The field appears to be used for animal grazing, with an associated access path in the south. There are overhead services (power) crossing from the west of the open field in a north-east to south-west direction, terminating at the electrical sub-station.
- 16.2.3 No potential sources of gross contamination were noted on-site. However, an electrical substation is located to the north of the main development area.

16.3 Geo-Environmental Setting

Historical Setting

- 16.3.1 A review of the available historical Ordnance Survey Maps and satellite imagery has been conducted, with the pertinent issues that may have affected the site, or its environs, summarised below.
- 16.3.2 The map evidence indicates that the site comprises a sand pit and a small pond in the south-east section of the site from the earliest available mapping of 1850, until 1907 when the southern part of the site is covered in a large sand/gravel/refuse mound that extends southwards offsite. After 1955, the mound is vegetated, suggesting that the mounds were not altered after this date. By 1987, the mounds were labelled on the historical maps, suggesting the mounds were likely retained as landscaping, or potentially

excavated. Majority of the site still comprises grassland up to present day as noted during the site walkover.

- 16.3.3 Historical land use in the surrounding area has been predominantly industrial and agricultural with railway lines and sidings associated with Outwood Colliery to the east and Electric Power Station and Electric Substation to the north of the site. Brick works and sewage works were also noted within the vicinity of the site.

Published Geology

Made Ground

- 16.3.4 GS mapping does not display any made ground deposits on site. There is a lack of development onsite. However, information from the Geo-Environmental Data Report indicates the southern part of the site to be underlain by made ground (undivided), which is consistent with the large refuse heap / spoil heap identified on the historical mapping and therefore made ground is likely present.

Superficial Deposits

- 16.3.5 The majority of the site is indicated to be underlain by Devensian Till, with most of northern part of the site, along the line of the proposed cabling, underlain by Glaciofluvial deposits. These strata typically comprise Diamicton, and sand and gravel respectively.

Solid Geology

- 16.3.6 The deeper solid geology underneath the central section of the site is indicated to be part of Pennine Middle Coal Measures Formation (Newton Heath Sandstone) which typically comprises sandstone. The deeper solid geology is indicated to be part of the Pennine Lower Coal Measures Formation which typically comprises mudstone, siltstone and sandstone.
- 16.3.7 A fault is shown to intersect the most southern part of the site in a north-west to south-east direction. However, any movements associated with this fault should now have stopped
- 16.3.8 The site is also in an area where coal seams are abundant. The Coal Authority Interactive Map suggests that there are past shallow mine workings traversing the access path in the most southern part of the site. Given this, it is unlikely that the workings would cause significant mining instability as they are in an area where no structures are proposed.

Mining and Mineral Extraction

16.3.9 The online Coal Authority Interactive Map layers have been reviewed and part of the access section of the access path leading to the open field is within a High Risk Development Area.

Hydrogeology

16.3.10 Based on the inferred geology, a summary of the Environment Agency aquifer designations is presented in Table 16.1 below.

Table 16.1: Aquifer designations		
Stratum	Coverage	Aquifer Designation
Glaciofluvial Deposits	North of the Site	Secondary (A) Aquifer. These are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
Till	South of Site	Secondary Aquifer (Undifferentiated). The classification is assigned where it is not possible to attribute either category A or B to the aquifer
Pennine Middle Coal Measures	Full Site	Secondary (A) Aquifer. These are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

Hydrology

16.3.11 Information obtained from the Environment Agency (EA) Risk of Flooding from Rivers and the Sea (RoFRaS) database indicates that there are no records for the site, suggesting the risk of flooding across the site from rivers or sea is negligible.

16.3.12 The British Geological Survey indicate there is a potential for groundwater flooding at the subject site, with a low to moderate risk rating.

Landfill and Waste Management Sites

16.3.13 There are no active landfill sites recorded within 500m. However, there are 3 LA/mapping records which all states the presence of a refuse tip with the closest being 394m east of the site. The closest historical landfill to site (178m N) shown in the EA/NRW record is an inert industrial, commercial and household landfill last recorded in 1976. The other three records are between 336m and 447m away from site and were last recorded between 1985 and 1993.

16.3.14 There are no current waste management sites recorded within 250m of the site.

16.3.15 The closest historical waste management site is recorded as a scrap metal yard, located 355m to the north of the site. The other three historical waste management sites relate to an incinerator located 371-372m north-east of the site.

16.4 Phase 1 Summary and Risk assessment

16.4.1 The risk posed by any contaminants in soil or groundwater will depend on the nature and level of the source, the probability of exposure occurring, the potential pollution pathway and the likely effects on the receptors.

16.4.2 A contaminant is defined as a substance that has the potential to cause harm, a risk is considered to exist if such a substance is present at sufficient concentrations to cause harm and if a pathway is present through which a receptor could be exposed to the contaminant.

Potential Contaminative Sources

16.4.3 From the information obtained, the following on site sources have been identified which may affect the redevelopment of the site for commercial end use:

- Made ground associated with previous use on-site.
- Unspecified refuse / spoil heap

16.4.4 The refuse / soil heaps were placed over a century ago therefore any potential contaminants would have degraded over time. Given this, it is not considered to be a significant source. This is also likely to be the source of the made ground, which is also not considered to be a significant source.

Off Site

16.4.5 The following off-site sources have been identified which may affect the redevelopment of the site:

- Electrical substation (adjacent to north-western boundary).
- Ponds (from on-site).
- Railway, sidings (closest 0m E).
- Sewage works including tanks (60m NE).
- Colliery including shafts, tanks, spoil heaps, reservoirs, sidings (70m E). Scrap yard (abutting the site to the east).

Associated Contaminants

16.4.6 The contaminants commonly associated with the potential sources of contamination identified are shown in Table 16.2 below.

Table 16.2: Potential Contaminants		
Contaminative Sources	Department of the Environment Industry Profile or Other Source	Commonly Associated Contaminants
On Site		
Made ground associated with former infilled shaft.	AGS Guides BS8485 and BS8576	Heavy metals, polycyclic aromatic hydrocarbons (PAHs), asbestos, ground gases (carbon dioxide and methane).
Unspecified refuse / spoil heap	BS8485 and BS8576	Heavy metals, polycyclic aromatic hydrocarbons (PAHs), asbestos, ground gases (carbon dioxide and methane).
Off-Site		
Electricity Substation	Electrical Works	Heavy metals, hydrocarbons, PCBs, inorganic compounds, solvents.
Railway	Railway Land Engineering works-Railway	Heavy metals, PAHs, petroleum hydrocarbons, PCBs, asbestos.
Infilled Ponds	AGS Guides BS8485 and BS8576	Heavy metals, polycyclic aromatic hydrocarbons (PAHs), asbestos, ground gases (carbon dioxide and methane).
Sewage Works	Sewage Works CL:AIRE TB19 and TB22	Heavy metals, polycyclic aromatic hydrocarbons (PAHs), petroleum hydrocarbons, inorganics, asbestos, ground gases (carbon dioxide and methane).
Colliery	BS8485 and BS8576	Heavy metals, asbestos, PAHs, coal tars, VOCs, asbestos, ground gases (methane, carbon dioxide, carbon monoxide)

Preliminary Conceptual Site Model (CSM)

16.4.7 The information obtained in the previous sections has been used to compile a Preliminary CSM. The identified potential contaminants and receptors have been assessed as to whether a plausible source-pathway-receptor pollutant linkage for the proposed end use of the site exists. The risk classification has been estimated in accordance with information in the BSL Guidance and Methodology in Appendix A.

16.4.8 The Preliminary CSM's are presented in the Full Report. A summary is provided below.

Human Health Risk – Soils Contamination Summary

16.4.9 Based on the preliminary CSM and the current use of the site, the overall risk from land contamination at the site is considered to be low for a redeveloped site. Risks from off-site sources are considered to be low to low / moderate.

Human Health Risk – Ground Gas Summary

16.4.10 Based on the preliminary CSM, the proposed development is considered to be at negligible risk from ground and mine gases.

16.4.11 Note that the risks are considered negligible due to a lack of receptor on the source-pathway-receptor model. Given this, should the nature of the proposed development change, then this assessment should be revised as potential sources of ground gas were identified.

Controlled Waters Risk - Summary

16.4.12 Based on the preliminary CSM, the overall risk to controlled waters at the site is low.

16.5 Preliminary Geotechnical Assessment

Hazard Identification

16.5.1 A preliminary geotechnical hazard identification exercise has been undertaken in general accordance with the Highways England document CD 622, 'Managing geotechnical risk'. Potential geotechnical hazards based on the expected ground conditions are listed below:

- Made ground of unknown nature; if placed in a non-engineered manner may cause excessive settlement of foundations, highways and infrastructure.
- Attack of buried concrete by aggressive ground conditions; the site may contain unknown made ground and potentially sulphate bearing soils. The coal measures are known to be high in naturally occurring sulphates.
- Shallow groundwater/groundwater rise causing resulting in difficulties with excavations due to trench collapse.
- Mining subsidence; the site is in an area of former shallow coal mine workings.

- 16.5.2 In respect to potential for mining induced stability, the site lies in an area where coal seams are abundant. According to the Coal Authority Interactive map, past shallow mine workings have occurred in the most southern part of the site, with access path within the area of past shallow workings. Furthermore, probable shallow workings are also believed to have occurred further south of the site and to the north.
- 16.5.3 Nevertheless, no coal mine shafts have been recorded on site, with the closest coal mine shaft located 138m SE of the site.
- 16.5.4 Significant surface workings are recorded on-site and in the sider area, principally to the north, east and south. This is likely related to the sand / gravel extraction noted on historical mapping. The nearest BritPit is the Bottom O'th'Field Sand Pit, used for extraction of sand. At its closest point it is 5m NE of the site.

Drainage

- 16.5.5 Given the site is predominantly underlain by low permeability clays, further infiltration testing at detailed design stage will confirm the suitability of drainage to SuDS.. In the event this is not feasible a suitable outfall has been identified.

16.6 Conclusions

Geo-Environmental Summary

- 16.6.1 The site has had previous uses including a sand pit, pond and unspecified refuse heaps, however based on the proposed commercial development, the overall risk to human health from on-site soils contamination is considered to be low.
- 16.6.2 The risk from off-site sources of contamination is considered to be low to moderate / low.
- 16.6.3 There is not considered to be a significant risk from permanent ground gases to the proposed development.
- 16.6.4 Radon is not considered to pose a risk, and protection will be not required.
- 16.6.5 The overall risk to controlled waters is considered to be low.
- 16.6.6 Intrusive investigations in respect to potential contamination on-site is not considered to be necessary for the proposed development, given the lack of identified sensitive receptors or risks to human health or controlled waters.

Geotechnical Summary

- 16.6.7 Intrusive investigations may be required to confirm the most suitable foundation solution and to obtain parameters for concrete classification, floor slab and highways design.
- 16.6.8 The site is potentially influenced by mining related subsidence. A desk-based Coal Mining Risk Assessment (CMRA) may be required to assess the risk in further detail and an intrusive coal mining investigation will potentially be required.
- 16.6.9 Drainage to SuDS may not be a viable option for the site due to the low permeability clays underlying the site. However, there is a viable outfall should this prove the case at detailed design stage.

17 OTHER MATTERS

17.1 Tree Survey

- 17.1.1 An Arboricultural Impact Assessment has been carried out and concludes that no trees would be lost as result of the proposed development.
- 17.1.2 The survey has been carried out in accordance with the recommendations set out within BS5837:2012 Trees in relation to design, demolition and construction.
- 17.1.3 The root protection areas (RPAs) are shown on the Arboriculture Impact Plan, confirming that RPAs are not impacted by the development.
- 17.1.4 Horizontal directional drilling techniques will be used to install the cable connection to the substation. The cable will be installed underneath the RPA of the trees. Entry and exit pits will be located outside of tree RPAs and excavated to a minimum of 3 metres to afford protection. The anticipated drill depth is considered to be significantly deeper than that which would typically be occupied by substantial tree roots of group G1. A single drill line at this depth is not considered to be of a detrimental impact to the structural integrity of the trees nor their long-term health and vitality.
- 17.1.5 None of the trees proposed for removal are considered aged or veteran, therefore the principals for refusal within the parameters of the NPPF would not be relevant on this occasion.

17.2 Minerals

- 17.2.1 A Minerals Resource Assessment has been prepared in relation to the Site's location within a Minerals Safeguarding Area for sand and gravel.
- 17.2.2 The proposal Site lies within Mineral Safeguarding Areas for sand gravel and brickclay.
- 17.2.3 The MRA concludes that there is no conflict with Policy M8 of the Greater Manchester Joint Minerals Plan Development Plan Document as:
- There is no potential value in extracting the minerals, the extent and nature of which would not be commercially viable;
 - There is no prospect of prior extraction;

- The introduction of a BESS would not result in proximal sterilisation of the wider MSA;
- There is an overriding need for the development

17.2.4 There is no prospect of minerals ever being worked in the future, so there is no conflict with paragraphs 216 and 217 in NPPF.

18 CONCLUSIONS

18.1 The Planning Balance

- 18.1.1 This Planning Design and Access Statement accompanies a Planning Application for a 11MW Battery Energy Storage System (BESS) facility on land to the east of Shore Top Farm, Kearsley Road, Radcliffe, M26 1FA (the 'Site').
- 18.1.2 Storing electricity locally allows for a focused management of the network, benefitting local residents and businesses. Provision of locally produced power during times of stress reduces the risk of power outages to the immediate locality. Having a storage facility embedded in the local network means the area is less likely to experience power shortages and blackouts caused by the loss of inertia created by the increased input from renewable generation on the network.
- 18.1.3 There is policy support for this type of facility at local and national level and the energy storage benefits of the proposal should be afforded substantial weight in the planning balance.
- 18.1.4 The Site Selection Assessment demonstrates that there are no alternative Sites which could potentially provide a more acceptable alternative location for the Proposed Development.
- 18.1.5 The application is supported by a suite of technical assessments which address potential impacts. The outcome of these assessments is that subject to appropriate mitigation there would be no significant adverse impacts on amenity or the environment.
- 18.1.6 The proposal has been assessed against the Development Plan and other relevant material considerations which has demonstrated that that the location of the proposal is entirely appropriate and does not conflict with national or local planning policies.
- 18.1.7 In conclusion, it is considered that the Proposed Development should be supported.

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GP PLANNING LTD

GP PLANNING LTD

Mr Christian Smith DipTP MRTPI MCMI
Miss Maureen Darrie BSc (Hons) MRTPI

Registered in England
Number 6019666

Registered Office:
iCon Innovation Centre, Eastern Way,
Daventry, Northamptonshire, NN11 0QB

