Leeds CITY COUNCIL

Originator:	Daniel Strode

Report of the Chief Planning Officer

NORTH & EAST PLANS PANEL

Date: 28 March 2024

Subject: 23/03233/FU – Installation and operation of a Battery Energy Storage System and associated infrastructure at Land To The North Of Allerton Bywater, To The West Of The A656 Barnsdale Road, South Of Kippax.

APPLICANT	DATE VALID	TARGET DATE
Banks Renewables (Barnsdale Solar Park) Ltd	03.07.2023	02.10.2023 (EOT Agreed 05.04.2024)

Electoral Wards Affected:	Specific Implications For:
Kippax and Methley Ward	Equality and Diversity ☐
	Community Cohesion ☐
Yes ☐ Ward Members consulted (referred to in report)	Narrowing the Gap ☐

RECOMMENDATION: DEFER AND DELEGATE to the Chief Planning Officer for approval subject to the conditions set out at Appendix A and the referral of the application to the Secretary of State as a Departure from the Statutory Development Plan and should the Secretary of State decide not to call in the application for determination.

INTRODUCTION:

1. This planning application which seeks planning permission for the installation and operation of a Battery Energy Storage System and associated infrastructure is recommended for approval.

2. In accordance with para. 10 of the Town and Country Planning (Consultation) (England) Direction 2021, should the Plans Panel agree with the Officer recommendation then the matter must be referred to the Secretary of State for Housing, Communities and Local Government (SoS), on the grounds that i) the application forms a major planning application of over 1ha in size and is located within the defined Green Belt and, ii) by reason of its scale or nature or location would have a significant impact on the openness of the Green Belt.

3. To accord with para. 12 of the Direction, the Council would be unable to issue a formal decision on the planning application until the expiry of a period of 21 days from the SoS's confirmed receipt of the referral. If, before the expiry of the 21 day period, the SoS has notified the Council that he does not intend to issue a direction under section 77 of the Town and Country Planning Act 1990 in respect of the application, then the Council can proceed to determine the application (para. 13 of the Direction).

4. On 29 August 2023, Ward Councillors James Lewis and Mary Harland made a formal referral request for this planning application to be determined by the Plans Panel should a recommendation for approval be made. Their reason for the referral is that the site is in the Green Belt and would be harmful to it.

5. On 12 September 2023, Ward Councillors James Lewis and Mary Harland submitted an objection to the proposal. They state the proposal would be harmful to the openness of the Green Belt and the five purposes which it serves, and that the very special circumstances for development within the Green Belt have not been met.

6. As the matters raised by the Ward Councillors are based on material planning considerations that give rise to concerns affecting more than neighbouring properties, the request meets the criteria outlined in the Officer Scheme of Delegation and it is appropriate to report the application to Panel for determination.

PROPOSAL:

7. A 40MW Battery Energy Storage System ("BESS") is proposed on the application site for a duration of up to 40 years, with associated supporting infrastructure.

8. The proposed development would consist of 32 battery units and 16 inverter/ transformer units, arranged into rows and located within a hardstanding compound. The proposed batteries and inverters would have maximum dimensions of 6m length x 2.4m width x 4.5m height. These measurements account for roof-mounted cooling units where necessary. A 2.4m high security fence would surround this battery storage compound.

9. A proposed 66kV substation compound comprising of switchgear, a transformer, a substation control room, an auxiliary building, two water tanks and a parking area, all sited on hardstanding. This infrastructure would have maximum dimensions of, switchgear - 30m length x 4m width x 6m height; transformer - 9.5m length x 6m width x 7m height; control building - 13m length x 7.5m width x 3.9m height to eaves and 5.9m height to ridge; auxiliary building – 11m length x 7.5m width x 4m height; 2no. water tanks - 10.3m length x 3.5m width x 3.6m height. A 2.4m high security fence would surround this substation compound.

10. Additional infrastructure proposed includes a cable connection from the proposed development to the existing electricity substation off Barnsdale Road (A656), known as Ledston substation. Most of the cabling would be underground. Pole-mounted CCTV at maximum heights of 5m are proposed to be positioned throughout the development site.

11. A wetland area is proposed directly to the east of the proposed substation which incorporates a drainage pond. A 2.4m high security fence would surrounding this wetland. Proposed landscaping consists of a line of tree planting, hedgerow and scrub planting directly to the north of the access track, along its full length. New hedgerow would be planted directly to the west and south of the battery storage compound, as well as directly to the south of the substation compound and wetland area. This

hedgerow would be managed at a height of 6m and to a width of 3-5m. Additional biodiversity enhancement measures proposed include four pole mounted bird boxes, six pole mounted bat boxes and 2 hedgehog boxes.

12. For the duration of the construction period, there would be a temporary site compound area including 5no. cabins measuring a maximum of 10m length x 3m width x 3m height providing for offices, mess facilities, stores, w/c, dry room, an external generator, an external water tank/ bowser, a 10m length x 3m width waste management area, alongside a temporary vehicle parking area. The construction phase of the proposed development is stated to be 6 months.

13. Site access and egress would be taken from an existing private access way off Barnsdale Road (A656), between an existing substation and a dwelling known as Low Lodge. A 4.5m wide access track would be constructed with a length of approximately 450m. The existing junction off Barnsdale Road would be upgraded and widened to accommodate the construction and decommissioning phases of the proposal.

SITE AND SURROUNDINGS:

14. The application site is 1.94 hectares in area and is located on open agricultural land to the west of the A656 Barnsdale Road, north of Allerton Bywater, south of Kippax and to the southwest of Ledston.

15. The site lies in the Green Belt, within the south-western corner of a wider field which is bound by a mixture of hedgerows and mature trees. Approximately 50m to the south of the site is a line of hedgerow and trees, with the site's western boundary located adjacent to hedgerow. There are a small number of woodland plantations within proximity to the west of the site. The Ledston Substation alongside Barnsdale Road is enclosed by hedgerow and trees. A Grade II Listed Milepost off Barnsdale Road close to the site entrance.

16. The closest residential property to the site is Grade II Listed Low Lodge (including gate piers and wall), some 300m to the east with Barnsdale Road. Allerton Bywater Village is found approximately 325m south of the site, with the closest properties located on Park Lane. Approximately 500m to the north is a Grade II Listed barn at Home Farm, together with a cluster of residential dwellings and the southernmost boundary of Kippax Village being some 1.5km away. Ledston is located approximately 1km to the east with the closest properties located off Main Street. Within the wider area surrounding Ledston is the Grade I Ledston Hall and Grade II* Ledston Hall Registered Park and Garden.

17. There are several nature conservation sites within the area, including the Kippax Lodge Pond Local Wildlife Site, approximately 100m to the east. Within the wider surrounding area, to the southeast, lies the Newton Ings Local Wildlife Site and Fairburn and Newton Ings Site of Special Scientific Interest (SSSI).

RELEVANT PLANNING HISTORY:

18. The application site forms a small part of a much larger approved 88ha solar park development, which determined at City Plans Panel on 10th June 2021 and received planning permission in October 2021 (ref. 20/07999/FU). The proposed BESS is proposed to be sited within the solar park area earmarked as a 'Set Area' (a lay-down area, for parts and equipment required during construction) shown on the approved plans.

Planning applications at the application site:

19. **18/06374/FU** – Development of a gas-powered standby generation and battery storage facility. *Withdrawn by Agent on 13/06/2019.*

20/07999/FU – Installation and operation of a solar park with associated infrastructure and upgraded access. *Approved 21/10/2021,* with the following associated Discharge of Condition Consents:

- **22/06288/COND** – Consent, agreement or approval required by conditions 8 and 13 of Planning Application 20/07999/FU. *Approved 24/11/2022*; and,
- **23/05348/COND** – Consent, agreement or approval required by Condition 7 of Planning Application 20/07999/FU. *Approved 13/09/2023*.

23/06630/FU – Variation of Condition 9 (external details) to previously approved Planning Application 20/07999/FU to account for the constantly developing solar panel technology and proposing to split Condition 9 into two Conditions. *Decision Pending.*

HISTORY OF NEGOTATIONS:

Pre-Application Planning Advice

20. The applicant sought pre-application advice for a battery energy storage system and associated infrastructure for a temporary period of 40 years at the application site. The local planning authority's pre-application advice letter of 8th February 2023 (ref. PREAPP/22/00436) identified that the principle of the proposal would generally align with the British Energy Security Strategy 2022 by assisting to balance the National Grid and the co-location of BESS with the approved solar farm would assist to flatten out the intermittent nature of supply from the solar development. Whilst the proposed duration of 40 years constituted a significant period, it was noted that the BESS could be decommissioned and removed, and the land appropriately restored.

21. The pre-application advice letter also noted that the proposal would be industrial in form and function and located within the Green Belt on open and currently undeveloped agricultural land, set within a rural area and within relatively close distance to dwellings, including inter-visibility with and between Listed buildings and assets. Whilst a BESS could connect into the Grid and an approved solar park, the latter has not yet been constructed and, as such, any proposed BESS would have to be assessed as a standalone development. The local planning authority considered that the proposal would amount to inappropriate development within the Green Belt, with substantial harm to openness. The applicant was advised to provide a robust case for very special circumstances to support any future planning application, alongside an Alternative Sites Assessment with the purpose of justifying the proposed Green Belt site. Advice was also provided on landscape and visual effects, ecology and biodiversity, drainage and flooding, contaminated land, highways and residential amenity. Pre-application community consultation was encouraged.

Screening Opinion

22. Under Regulation 6 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, the applicant made a formal Screening Request to the local planning authority for the BESS proposal. The 'Screening' procedure is to determine whether a proposal is likely to have significant effects on the environment within the remit of the Regulation and therefore whether an Environmental Impact Assessment is required.

23. The local planning authority's Screening Opinion of 14 December 2022 (ref. PREAPP/22/00360) was negative, as the proposal was not considered to have a significant effect on the environment. As such, there is no legal requirement for a future planning application for the proposal to be environmentally assessed.

CONSULTATION RESPONSES:

24. The following is a summary of consultation responses received:

Statutory Consultees:

25. **Environment Agency** – The proposed development is wholly within Flood Zone 1, except for the access track which is located in Flood Zone 2 and 3 but will not involve ground level raising. No objection on flood risk grounds.

Non-Statutory Consultees:

26. **Yorkshire Water Services** – No comment.

27. **Natural England** – No comment.

28. **Northern Gas Networks** – No objection.

29. **West Yorkshire Archaeology Advisory Service** – The Heritage Statement includes the results of a geophysical survey. This has identified three linear and curvilinear features which would be crossed by the access track. The date of these features is unknown, however, the land east of Leeds and north of Castleford does contain extensive remains of Iron Age and Roman ditch systems. A planning condition is recommended relating to the implementation of a programme archaeological recording.

30. **West Yorkshire Fire & Rescue Service (WYFRS) -** First response received: The Planning Authority should seek clarification on the testing of installation. The risks of vapour cloud, thermal runaway and explosion are unfortunately becoming more common for BESS installations. Guidance suggests that lithium ion/lithium iron battery fires should be doused with significant amounts of water, and ideally subject to full submersion of the batteries for a period of 24 hours. This would require approx. 5.5 million litres of water. The run-off of these tactics would likely have a significant impact on the surrounding area.

31. After the initial response from WYFRS, the national planning practice guidance on Renewable and Low Carbon Energy was updated on 14 August 2023 to include guidance on BESS development. This update encourages applicants to consider guidance produced by the National Fire Chiefs Council (NFCC) when preparing a planning application for a BESS development. In response to this and the WYFRS's advice, the applicant submitted a Fire Safety Management Plan for the BESS development. The WYFRS reviewed the submission against the NFCC Guidance and set out where the proposed development failed to meet the guidance.

32. It is the opinion of the Fire Authority that the proposed site should meet the recommendations of the NFCC guidance or provide robust justification were deviation from this guidance occurs. The applicant considers that the site complies with the NFCC Guidance. This is discussed further in the Appraisal section below.

33. **LCC Flood Risk Management** – The majority of the application site is located within Flood Zone 1, with a small area covering the site access track being located within flood zone 2 and 3 as result of flooding from Sheffield Beck. It is noted that the surfacing to the battery compounds and access road will be of a permeable nature to allow the majority of the rainfall to permeate down into the sub strata. At any low points in the access track grips will be incorporated to allow any run-off to drain onto the adjacent grassed areas. Although it is anticipated that access will not be required during an unlikely flood event, the applicant proposes to provide a Flood Emergency Plan to cover the scenario when urgent maintenance is required during a severe flood event and this can be secured by planning condition.

34. **LCC Contaminated Land Team** – Due to the proposed building on site, a ground gas risk assessment is required. Information relating to a larger area was submitted by the same applicant (solar farm ref.20/07999/FU). A Phase 2 report has been submitted and approved under Discharge of Condition Application ref. 22/06288/COND.

35. **LCC Design Team** – Although this proposal sits within Green Belt, it is set some way back from the road, is associated with other power-generation infrastructure and is to be partially screened by soft landscape. Details of the materials, size of constituent components (batteries etc) and colour/finish need to be agreed. The design of the control building and the materials illustrated are not accepted and remain to be agreed. There are no design objections at this stage.

36. **LCC Climate and Energy Team** – No comment.

37. **LCC Conservation Team** – The application site appears to be contained within the redline of the approved Barnsdale Solar Park 20/07999/FU. A number of protected heritage assets surround and overlook the site. These include Grade II listed Low Lodge at the entrance to the site and Grade I Ledston Hall and Grade II* Ledston Hall Registered Park and Garden to the east. The approved solar scheme secured landscape mitigation to screen the 'harm' caused by the solar installation, including support infrastructure, in views to nearby heritage assets and amendments to the highway design/material specification to the access road to better preserve the character of the adjacent Grade II Low Lodge. Subject to confirmation of the following, the proposal is considered to be fine:

    - sufficient buffer planting to mitigate/screen views to the BESS;
    - the highway design/material specification of the access road remains as approved under 20/07999/FU;
    - design details/material specification of the control building and BESS specified to sit comfortably with rural character and be as recessive as possible.

38. **LCC Landscape Team** – The submitted Arboricultural Survey and Tree Constraints Plan illustrate minimal impacts to existing trees and proposes protection from construction operations where required. The proposal appears to require the removal of the entire length of a healthy B category 16ft established hedgerow (H2) along the western boundary with the existing dwellings and sub-station. Justification for this is required. The viewpoint images within the Landscape and Visual Appraisal suggest potential impacts from Viewpoints 2 and 9. Viewpoint 2 is from a footpath looking north-east and Viewpoint 9 is from Park Lane looking north. The current boundary offers poor screening particularly in the winter. The discontinuous and gappy nature of existing hedgerow confirms need for sufficient screen planting to site boundary. The proposed hedge to south of site should be 3 to 5m in depth, to be supported in landscape terms.

39. **LCC Highways** – No objection subject to conditions and directions. As approved for the solar farm (ref. 20/07999/FU), access arrangements are subject to a S278 Agreement. Any approval of the current application should require the access to be laid out prior to construction. A wider junction during construction is required. A Construction Traffic Management Plan will be required by planning condition and same planning conditions for the solar farm applied. The Transport Statement advises that peak traffic generation would occur during the first two months of construction with a maximum of 48 vehicle movements per working day (18 HGV + 30 Car/LGV movements in total). It is acknowledged that the construction traffic would be temporary and is not considered severe in terms of the safe and efficient operation of the public highway in the vicinity of the site. It is considered that once constructed the proposals will generate minimal traffic, other than that associated with occasional maintenance vehicles.

40. **Yorkshire Wildlife Trust** – The proposed site lies in a heavily designated area in terms of nature conservation. Despite the sensitive location, we acknowledge the size of the application site and the site is of low ecological value. There are unlikely to be impacts on designated sites. Provisions within Construction Environmental Management Plan, such as bat and bird boxes and retained trees should be implemented by planning condition. Following the response from the RSPB, Yorkshire Wildlife Trust share the concerns raised by the RSPB and object to the scheme. Further information required regarding the potential ecological impact should a fire event occur. Impacts of potentially contaminated run-off must be fully established.

41. It should be noted that the response above was received prior to the submission of the Applicant's Fire Safety Management Plan and the amendment to the site layout which now incorporates a containment strategy, so that in the event of a fire response, contaminated water will be contained within the application site.

42. **LCC Nature Team** – The Baseline Habitat Units are 3.02 (0.04 to retain, 2.98 to lose) and Post-development Habitat Units are 5.31 (0.04 retained, 5.27 created). The submitted documents indicate an uplift of 2.29 habitat units or a biodiversity net gain of 75.73%. Baseline Hedgerow Units are 0.74 (0.23 to retain, 0.5 to lose) and Post development Hedgerow Units are 18 (1.99 (0.23 retained, 1.76 created). The submitted documents indicate an uplift of 1.26 hedgerow units or a biodiversity net gain of 170.75%. The site provides foraging and commuting habitat for local bat species. A Lighting Design Strategy for Bats can be secured through condition. Mitigation of any risks against Great Crested Newts can be secured through implementation of method statement. Planning conditions are recommended relating to a Construction Environmental Management Plan, a Landscape & Biodiversity Net Gain Management Plan, a BNG Habitat Monitoring Report, a Protected Species: Reasonable Avoidance Measures Method Statement, a Lighting Design Strategy For Bats and pole mounted bat roosting.

43. **LCC Environmental Health Services** – We have reviewed the noise impact assessment which concludes that when assessed under BS4142 and low frequency criteria, noise would not create an adverse impact. We concur with this appraisal and agree that a post-completion condition requiring a sound test to confirm that noise levels do not exceed those predicted and remedial action is taken if this is not the case as recommended in the report.

PUBLIC/LOCAL RESPONSE:

44. The application was publicised by advertisement in the Yorkshire Evening Post on 18.07.2023 and a total of eight site notices posted in the local area on 28.07.2023 and 08.08.2023.

45. Councillor Lewis and Councillor Harland of Kippax and Methley Ward have submitted the following comments in objection:

- The proposed development is unsuitable for the site which is in an open field to the north of Allerton Bywater and to the west of Barnsdale Road. The submitted plans suggest that the highest construction heights on the site will be 3.6 meters above ground level.
- The area is earmarked as Green Belt.
- The government's National Planning Policy Framework sets out 5 purposes for the Greenbelt:
    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.
- We believe that this proposal is harmful to all these objectives and the very special circumstances test has not been met therefore the site should be left as a buffer between Allerton Bywater, Kippax and Ledston.
- Consideration should be made to locate energy infrastructure like this on sites that have a less of an impact on the wider appearance of the area.
- In line with the Government's planning guidance on renewable and low carbon energy (Paragraph: 034 Reference ID: 5-034-20230814) we ask that an individual Fire Risk Assessment specific to the site, equipment, layout, battery type and any proposed fire suppression systems is prepared by the applicant and reviewed by the West Yorkshire Fire and Rescue Service with all documents being available on the council's public access site before any determination of the application is made.
- Given the interest in the application we would ask that if there is a recommendation for approval the application should be referred to the relevant plans panel for determination.

46. The Alec Shelbrooke MP submitted the following in objection:

- The proximity of this site to residential dwellings is of great concern. Should the planning application be approved, the impact on local residents during the construction process and thereafter must not be underestimated. The Government's NPPF encourages the development of brownfield sites, and that local planning authority decisions should 'promote the effective use of land' and make 'as much use as possible of brownfield land'. The NPPF further states that renewable energy projects on Greenbelt land are an 'inappropriate development' and should only be accepted in 'very exceptional circumstances. Whilst the applicant acknowledges this policy in their submissions, they fail to confirm what the very exceptional circumstances are for submitting the application on the proposed site. The application site is also located on agricultural, good quality land. The site is located within the Flood Risk Area, with Barnsdale Road being prone to flooding during prolonged, heavy rainfall. Barnsdale Road connects Allerton Bywater, Ledston and Kippax with the nearest major town of Castleford; and the junction of Barnsdale Road/Newton Lane/Park Lane is regularly closed due to flooding. Should the development be approved, this will impact the natural

soak away even further and increase the risk of flooding in the area, thus having further detrimental impact on residents, the farmland and the wildlife. The application sites is also located within close proximity to Fairburn and Newton Ings – a Site of Special Scientific Interest, which is also protected by the RSPB as it is known for its avian biodiversity. Any potential development in the vicinity of this precious site will have an adverse effect on the resident and migratory species. I note that the RSPB and the Yorkshire Wildlife Trust have submitted objections. Moreover, the land in Allerton Bywater and surrounding areas are not included into Leeds City Council's Site Allocation Plan for development. I note that the land south of Kippax is noted within the Site Allocation Plan, Volume 2: 9 Outer South East as deemed to be unsuitable for development because "development would not relate well to the existing settlement form and could set a precedent for further Green Belt sprawl.

- Charging and discharging batteries can create noise pollution. The NPPF advises LPAs to 'prevent new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels… noise pollution'. Despite this, the applicant proposes no mitigation measures.
- The majority of objectors are concerned about potential fires that may occur at a battery energy storage system (BESS), particularly given the proximity of the sites to residential properties and local schools. I also note that West Yorkshire Fire & Rescue Service has submitted a thorough assessment of the plans and raised numerous concerns about the lack of detail submitted by the applicant. Additionally, the risks and the impacts identified by the Fire and Rescue Service, should an incident occur, cannot be underestimated. Most BESSs use lithium-ion batteries, which can catch fire due to 'thermal runaway'. Faulty wiring, manufacturing defects, damage or improper usage can trigger a chain reaction causing excessive heat in one cell which spreads to neighbouring cells. This can cause an explosion (e.g. an explosion at a BESS in Arizona in 2012 and then again in 2019 due to excessive buildup of gas that outstripped the fire suppression systems ability to contain it). Lithium-ion battery fires are exceptionally difficult to fight due to reactivity with water, ability to generate their own oxygen and the toxic gases they emit, this is of particular concern given the proximity of the site to residential dwellings. Gaseous suppression and water systems simply don't work, as water conducts the electricity and also reacts with salts in the batteries electrolytes to form highly toxic and corrosive hydrofluoric acid; and gas suppression systems use CO2, halon or Novec 1230. Additionally, halon is very damaging to the environment and re-ignition is a great concern after CO2. Fire suppression can slow spread but cannot extinguish the thermal runaway. To extinguish such a fire with long-term application of water may take a number of hours or even days. Finally, various chemicals can be released during fires and extinguishing them, including carbon monoxide, carbon dioxide, hydrogen, methane, ethane and other hydrocarbons. Many of these chemicals can contribute to explosions - which have previously injured first responders - and are also incredibly damaging to the environment.

47. Great & Little Preston Parish Council object to the application. To summarise their response:

- Impact on Green Belt land. Alternative site should be chosen on brownfield land. Very special circumstances have not been proved.
- Threat to Fairburn Ings, effects on the local wildlife and ecosystems. There are deer, rabbits, foxes, badgers and great crested newts in the area.

- Risk of fire. As evidenced by Merseyside lithium battery storage facility fire and others around the world. A lack of safety information in the application. Toxic fumes from a fire would cause pollution and damage to health. Putting out fires would require substantial amounts of water, causing contamination which could spread to local RSPB sites (Fairburn Ings and St Aidan's.)
- Impact on amenity through noise.
- The area was used for coal mining and there could be implications for subsidence.

48. Kippax Parish Council object to the application. To summarise their response:

- Unacceptable development on Green Belt that will have a detrimental impact on the local environment.
- The site is a habitat for great crested newts.
- Concerns about the absence of an attenuation pond and limited access to water should a fire occur on the site.
- Information provided to the Parish Council in 2020 related only to the proposed Solar Farm on the site and the Parish Council are not aware of any residents having received the leaflet that it states was hand delivered regarding this application.

49. The application has received 907 objections from members of the public. The following is a summary of the concerns raised:

- Green Belt: Inappropriate development, harmful to openness, resulting in encroachment into the countryside;
- Landscape character: Industrial development within setting of open, greenfield land;
- Visual: Impact on views. Design and appearance of development not acceptable;
- Amenity impact: Harm though noise and light pollution;
- Safety: Risk of fire / explosion from BESS developments, history of battery storage incidents including a fire in 2020 from a BESS in Liverpool, proximity to homes and schools, potential impact of nature conservation areas as a result of a fire / amount of water required needed for a fire service response;
- Highway safety: Impact on traffic;
- Heritage: Harm to setting of Grade II listed Low Lodge;
- History of flooding on the land and safety concerns if site is subject to flooding;
- Loss of local wildlife, impact on ecology and biodiversity;
- Lack of community consultation and advertisement of application; and,
- Non-material issues, including impact upon property values.

50. The application has received 12 support letters from members of the public. Comments related to the benefits of renewable electricity and BESS schemes, the creation of habitats for wildlife, as well as bringing jobs and investment to the area.

51. The application has received 5 general letters from members of the public that raise queries about the scheme.

PLANNING POLICIES

LOCAL PLANNING POLICY AND GUIDANCE

The Development Plan

52. As required by Section 38(6) of the Planning and Compulsory Purchase Act 2004 this application must be determined in accordance with the Development Plan unless material considerations indicate otherwise. The Development Plan currently comprises the adopted Local Development Framework Core Strategy (2019), those policies saved from the Leeds Unitary Development Plan (Review 2006), the Site Allocations Plan (2019), the Natural Resources and Waste Development Plan Document (2013 and 2015) and the any made Neighbourhood Plan.

53. Relevant adopted policies of the Core Strategy:

SP10	Green Belt
SP13	Strategic Green Infrastructure
P10	Design
P11	Conservation
P12	Landscape
T2	Highway safety and accessibility
EN3	Low carbon energy
EN5	Managing flood risk
G1	Enhancing and extending green infrastructure
G2	Creation of new tree cover
G8	Protection of important species and habitats
G9	Biodiversity improvements.

54. Relevant saved policies of the Unitary Development Plan:

BD2	Design and siting of new buildings
BD4	Plant, equipment and service areas
GP5	General planning considerations
LD1	Landscaping schemes
N24	Landscape assimilation
N25	Development and site boundaries
N28	Protection of historic parks and gardens
N29	Archaeological requirements
N32	The site is located in the defined Green Belt
N33	Green Belt requirements
N35	Best and Most Versatile Agricultural Land
N37A	Countryside requirements.

55. Relevant adopted policies of the Natural Resources and Waste Local Plan:

Air 1	Air Quality
Water 2	Protection of water quality
Water 7	Surface water run-off
Land 1	Contaminated land
Land 2	Development and trees

56. Relevant Local Supplementary Planning Guidance/Documents:

Leeds City Council Transport SPD (2023)

<u>Local Plan Update</u>

57. The Local Plan Update is being prepared in response to the City Council's declaration of a Climate Emergency (2019) and addresses the pressing need for the district to

stay within its legally binding carbon budget, as well as preparing for the effects of climate change upon people, places and the natural environment. Draft policy EN3 of the Local Plan Update 1 Pre-Submission Draft is, in part, relevant to the proposal where it relates to energy storage. The relevant part states:

Energy storage developments will be supported in principle where:

(i) it is related to an existing or proposed renewable energy development, or:

(ii) It can demonstrate how the development alleviates grid constraints.

Applications must meet the following criteria:

a) Provide adequate mitigation for explosion and fire risks;
b) Mitigate any adverse visual impacts with the use of hard and soft landscaping and use of appropriate external materials;
c) A noise assessment will be required and the development should incorporate suitable noise attenuation measures such that noise impacts to nearby sensitive receptors are suitably mitigated;
d) Should not be located in flood zone 3 unless the Sequential and Exceptions tests can be passed and should be designed and constructed to remain operational and safe in times of flood and will not increase the risk of flooding or other associated risks to other developments, infrastructure, natural habitats or farmland;
e) Demonstrate that potential impacts on nationally and internationally designated sites have been assessed and mitigation provided where appropriate.

58. The pre-submission consultation closed on Monday 11 December 2023. At this time little weight can be afforded to the policy for this reason.

NATIONAL PLANNING POLICY AND GUIDANCE

National Planning Policy Framework

59. The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. It sets out the Government's requirements for the planning system. The NPPF must be taken into account in the preparation of local and neighbourhood plans and is a material consideration in planning decisions. Planning law requires that applications for planning permission must be determined in accordance with the development plan, unless material considerations indicate otherwise (section 38(6) Planning and Compulsory Purchase Act 2004). The National Planning Policy Framework is an important material consideration in planning decisions. The following sections of the NPPF are most relevant for the purposes of determining this application:

4 Decision Making;
6 Building a strong, competitive economy;
9 Promoting Sustainable Transport;
12 Achieving well designed places;
13 Protecting Green Belt land;
14 Meeting the challenge of climate change, flooding and coastal change;
15 Conserving and enhancing the natural environment; and,
16 Conserving and enhancing the historic environment.

Planning (Listed Buildings and Conservation Areas) Act 1990

60. Section 66 sets out that in considering whether to grant planning permission for a development which affects a listed building or its setting, the local planning authority must have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

National Planning Practice Guidance

61. The Planning Practice Guidance (PPG) provides commentary on the application of policies within the NPPF. The PPG also provides guidance in relation to the imposition of planning conditions. It sets out that conditions should only be imposed where they are necessary; relevant to planning and to the development to be permitted; enforceable; precise and reasonable in all other respects.

62. The Renewable and Low Carbon Energy PPG (last updated in 2023) – provides planning guidance to assist local planning authorities in developing policies for renewable and low carbon energy and identifies the relevant planning considerations. In relation to Battery Energy Storage Systems, paragraph 32 states:

> *'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.'*

63. Providing guidance on how local planning authorities should consider potential risks, paragraph 35 states that for BESS planning applications of 1 MWh or over, the local planning authority are encouraged to consult with their local fire and rescue service. Local planning authorities are also encouraged to consider guidance produced by the National Fire Chiefs Council (NFCC) when determining an application.

Other Guidance Documents

64. The British Energy Security Strategy (Gov, 2022) – provides general support for minimising energy wastage by encouraging sufficient large-scale, long-duration electricity storage to balance the overall system.

65. Grid Scale Battery Energy Storage System Planning Guidance for Fire and Rescue Services (NFCC, 2023) – encourages early engagement with the local Fire and Rescue Service, continuing throughout the planning process (FRS). As well as a comprehensive risk management process by operators to develop a robust Emergency Response Plan.

66. Delivering for 2035: Upgrading The Grid For A Secure, Clean And Affordable Energy Future (National Grid, 2023) – This states that a zero carbon power system will require a fundamental upgrade of our electricity grid. The Government is targeting to decarbonise the power system by 2035, while at the same time, demand for electricity will increase by 50%. The document states that significant growth is expected in battery storage.

CLIMATE EMERGENCY:

67. The Council declared a climate emergency on the 27th March 2019 in response to the UN's report on Climate Change.

68. The Planning Act 2008, alongside the Climate Change Act 2008, sets out that climate mitigation and adaptation are central principles of plan-making. The NPPF makes clear that the planning system should help to shape places in ways that contribute to radical reductions in greenhouse gas emissions in line with the objectives of the Climate Change Act 2008.

69. As part of the Council's Best City Ambition, the Council seeks to deliver a low-carbon and affordable transport network, as well as protecting nature and enhancing habitats for wildlife. The Council's Development Plan includes a number of planning policies which seek to meet this aim, as does the NPPF. These are material planning considerations in determining planning applications.

PUBLIC SECTOR EQUALITY DUTY:

70. The Equality Act 2010 requires local authorities to comply with the Public Sector Equality Duty. Having regard to all known factors and considerations, the requirement to consider, and have due regard to, the needs of diverse groups to eliminate discrimination, advance equality of opportunity and access, and foster good relations between different groups in the community has been fully taken into account in the consideration of the planning application to date and at the time of making the recommendation in this report.

71. In this instance it is considered that the proposals do not raise any specific implications in these respects and therefore it is not considered that a full Equality, Diversity, Cohesion and Integration Impact Assessment (EDCI) is required.

MAIN ISSUES:

1. Principle of the Proposed Development;
2. Agricultural Land Use Classification;
3. Landscape Character and Visual Impact
4. Amenity;
5. Fire Risk;
6. Heritage
7. Important Species and Habitat And Biodiversity;
8. Flood Risk;
9. Contaminated Land;
10. Highway Safety;
11. Representations
12. Planning Balance

APPRAISAL:

1. Principle of the Proposed Development

(i) Principle of Energy Storage:

72. The Planning Policy Guidance: 'Renewable and Low Carbon Energy' states that BESS developments enable us to use energy more flexibly and de-carbonise our energy system cost-effectively. This includes, helping to balance our energy system at lower cost and also maximising the usable output from intermittent low carbon generation, such as solar energy. The National Planning Policy Framework ('the Framework) and the adopted development plan for Leeds do not explicitly contain planning policy on energy storage development of any type.

73. The Leeds Local Plan Update 1 Pre-Submission Draft proposes draft policy EN3 provides (in part) explicit planning policy on energy storage development. This draft policy has undergone the relevant steps of public consultation via Regulation 18 ('preparation stage') and Regulation 19 ('publication stage') of the relevant Regulations (2012), closing on 11 December 2023. Further changes to the wording of draft policy EN3 may be necessary and the plan update as a whole remains at the pre-submission stage. Given that further changes are likely and the plan update has not been considered by the relevant Secretary of State, in accordance with para. 48 of the Framework, only very limited weight can be afforded to the draft policy for decision-making purposes.

74. While BESS is not specifically included within adopted national and local planning policy, regard can be had to Chapter 2 of the Framework which seeks to achieve sustainable development. Given that the purpose of BESS development is to a) prevent energy wastage and b) support the transition to a greener future using renewable energy generation systems, it is considered that general support in principle can be afforded to the purpose of the proposal, as encouraged in the relevant PPG. In considering these purposes against the need to address Leeds' climate change emergency, the energy storage benefit of the proposal is compelling and should be afforded great weight in establishing the principle of the development but only insofar as referenced in para. 11(d) of the Framework, which states:

> *'where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:*
>
> *I. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
>
> *II. 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.'*

(ii) *<u>Principle of development within the Green Belt:</u>*

75. The adopted Policies Map for Leeds and saved policy N32 identify that the application site is located within the defined Green Belt. As stated within paragraph 142 of the Framework, "*The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence*". There is strong national and local support to protect land within the defined Green Belt from inappropriate development.

76. Inappropriate development is, by definition, harmful to the Green Belt, and substantial weight should be given to his harm. Inappropriate development should not be approved except in "very special circumstances", which will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. Paragraph 152 of the Framework states that Local Planning Authorities should regard the construction of new buildings as inappropriate in the Green Belt. Exceptions to inappropriate development are set out within the Framework, however the proposed development for a BESS proposal does not fall within any of these exceptions.

77. The starting point is therefore to attach substantial weight to the inappropriateness of the proposed development within the defined Green Belt. The proposed development would, by definition, harm openness and undermine the purpose of including the land

within the Green Belt. This is contrary to the Framework and saved policy N33, carrying substantial weight.

78. The PPG advises that '*Assessing the impact of a proposal on the openness of the Green Belt, where it is relevant to do so, requires a judgment based on the circumstances of the case. By way of example, the courts have identified a number of matters which may need to be taken into account in making this assessment. These include, but are not limited to:*

- *openness is capable of having both spatial and visual aspects – in other words, the visual impact of the proposal may be relevant, as could its volume;*
- *the duration of the development, and its remediability – taking into account any provisions to return land to its original state or to an equivalent (or improved) state of openness; and*
- *the degree of activity likely to be generated, such as traffic generation.*

It is considered relevant in this case to address the specific circumstances to arrive at a sensible conclusion of the proposal's impact on openness.

79. The application site is positioned towards the south-western corner of an agricultural field, which is located between the settlement boundaries of Allerton Bywater, Ledston and Kippax. The land is open, aside from a row of electricity pylons which run directly to the south of the site, parallel to the site's southern boundary. The application site is fairly level, however land rises gently from the south, by Allerton Bywater to the north of the site towards Kippax. Hedgerows and mature trees form the boundaries of the wider field which the site is located within. Woodland plantations are within close proximity to the west of the site. There is other electrical infrastructure within close proximity as the existing Ledston substation is located off Barnsdale Road by the proposed entrance, however the proposed battery storage compound will be 300m from the substation, separated by the proposed access track.

80. The closest residential property to the site is the grade II Listed Low Lodge, located off Barnsdale Road, approximately 300m east of the proposed battery storage compound. From the property and from the access point off Barnsdale Road by the Ledston Substation there are views available of the existing open land within the application site. Park Lane, Allerton Bywater is located approximately 325m south of the site, however existing hedgerow and mature trees obscure views to the site, with existing open fields between the application site and Allerton Bywater.

81. The proposed development would inevitably significantly change the appearance, use and contribution of this area of Green Belt land, which is given substantial weight. Although there is the presence of existing electrical infrastructure within close proximity to the site, the site itself is open land. The site is also located within the approved site area of the Barnsdale Solar Park (ref. 20/07999/FU). This solar park was approved, following determination by City Plans Panel, in October 2021, covering an area of 88ha and the proposed battery storage compound is to be located within roughly the same location as an area of hardstanding approved under permission ref. 20/07999/FU. The proposal has been designed so that the BESS can share some of the electrical infrastructure already approved as part of the solar park. The proposed 66kV substation compound aspect of this proposed development which includes a switchgear, a transformer, a substation control room and an auxiliary building, as well as the proposed access track, have all previously been approved under permission ref. 20/07999/FU. The proposed development will not increase hard standing and will instead utilise the approved hardstanding 'set down' area as part of the solar park permission.

82. Whilst some elements of the two developments would be shared, there would be a greater degree of impact on Green Belt openness via the addition of structures, namely the proposed 32no. battery units and 16no. inverter/transformer units. Notwithstanding this, the applicant considers that the proposed development would have little to no material impact upon the openness of the Green Belt compared with the solar park approval, to which we disagree. It should also be noted that the solar park permission has not yet been implemented and whilst the appearance of the solar park would significantly, albeit temporarily, alter the character and use of the wider landscape, at present the site comprises open land.

83. Being industrial in its form and function, the BESS would clearly contrast with the open, undeveloped agricultural land within the area. It must therefore be the case that the proposal conflicts with the fundamental aim of preventing urban sprawl within the Green Belt. The proposal largely consists of building operations, but engineering operations are also required to install the development, including a new road and alterations to the site access. The built form and engineered features would be apparent both visually and spatially given the nature and scale of the development, relative to what is currently undeveloped open land. It is considered that the very presence and built form of the proposed development would not keep the land permanently open.

84. The proposed development is for a 40 year lifespan. The relevant PPG acknowledges that ‘duration and remediability’ are relevant considerations when assessing the impact of a proposal on openness. Despite the remediability of the development, taking into account provisions to return the land to its original state or to equivalent (or improved) state of openness, the 40 year lifespan of the development constitutes a temporary yet significant duration.

85. Consequently, in relation to the proposal’s impact on openness, the application site is currently an open agricultural field, aside from a row of electricity pylons directly to the south. There are dwellings within 300m of the site and some limited existing views are available of the site through gaps in vegetation off Barnsdale Road. The footprint of development would be reasonably contained, located close to existing hedgerows and is proposed to be located within the approved solar farm application site. Additional screening is to be provided through proposed landscaping, however this will inevitably take time to fully mature to screen and/or soften the appearance of proposed structures. The proposal will also have a 40 year lifespan and although this makes the application a temporary proposal, it is a substantial amount of time. Accordingly, due to the nature of the site as exists and the scale and visual prominence of the development, it is considered the proposal will have a significant impact on the openness of the Green Belt.

86. Taking account these circumstances, it is considered that the very presence of the proposed development on the undeveloped site within the countryside would prejudice the fundamental aim of Green Belt policy. As described at para. 142 of the Framework, the proposal would not prevent urban sprawl by keeping land permanently open. The proposal would also undermine two of the five purposes that the Green Belt serves and in respect of para. 143 of the Framework, the proposal would not (c) assist in safeguarding the countryside from encroachment, and would not (e) assist in urban regeneration, by encouraging the recycling of derelict and other urban land. For these additional reasons, the proposal is contrary to national and local Green Belt policy and would result in significant harm to the openness of the Green Belt.

87. The proposal is inappropriate development in the Green Belt by definition and by way of the specific circumstances of the case. The proposed development is therefore required to demonstrate 'very special circumstances', to outweigh the harm to the Green Belt by reason of inappropriateness, and all other identified harm. This is considered towards the end of this report, following an assessment of other detailed material planning considerations.

2. Agricultural Land Classification:

88. Land in grades 1, 2 and 3a are classed as Best and Most Versatile Agricultural Land. Saved policy N35 states that development will not be permitted if it seriously conflicts with the interests of protecting areas of the Best and Most Versatile agricultural land. Paras. 180 and 181 of the Framework seek to protect these areas of land and states that *'where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.'*

89. The submitted Agricultural Land Classification Report identifies that the application site is entirely situated on grade 3b quality land. As such the proposal would not see the loss of any Best and Most Versatile Agricultural Land, in compliance with the aims and objectives of saved policy N35 and para. 180b of the Framework.

3. Landscape Character and Visual Impact

90. Adopted policies P10 and P12 respectively relate to delivering high quality design developments and the character, quality and biodiversity of Leeds' townscapes and landscapes. Para. 135c of the Framework requires planning decisions to ensure that developments are *"are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities)"*

91. The application site is located on open land sited between Kippax, Ledston and Allerton Bywater. The site is positioned close to the south-western corner of an agricultural field which is bound by hedgerow and trees with Barnsdale Road (A656), Ledston substation and a residential property, Low Lodge, by the eastern boundary of the field. To the north lies Sheffield Beck. To the west lies woodland plantations and there is a Yorkshire Water sewage treatment works. The Leeds Landscape Assessment (1994) identifies that the site lies within the Degraded River Valley Character type, characterised by "an open, broad river valley, with gently sloping sides, leading down into a degraded landscape, dominated by human activity". It also states, "the valley forms a major communication corridor, with lines of pylons, roads and canals clearly evident."

92. The proposed development is utilitarian in design and its form and function are industrial in nature. The development would create a battery storage compound with regimented battery units and transformer equipment in rows. The battery units and transformer units are to have heights of 4.5m and as part of the proposed substation compound, the switchgear and transformer, will both have heights of 5m. There will also be the substation control room, auxiliary building, as well as security fencing, CCTV mounted on poles and the proposed new access track.

93. Adjacent to the south of the site is a line of electricity pylons, which are prominent features within the landscape, clearly visible from Barnsdale Road when approaching Allerton Bywater from the north. The pylons are also visible from Park Lane, in Allerton Bywater when looking northwards. The existing Ledston substation is also

clearly visible from Barnsdale Road. There is therefore a notable presence of existing electrical infrastructure within close proximity. Nevertheless, landscape character is still defined by predominantly open fields which separate villages. In contrast, the proposed development would lead to the industrialisation of the open countryside, which is at odds with the current use and character of the landscape.

94. The applicant has provided a landscaping scheme in and around the proposal to counteract this harm via the introduction of 81 new trees, hedgerow and scrub planting along the northern boundary of the application site. An additional 9 trees, hedgerow and scrub would be planted close to the grade II Listed Low Lodge, by the application site entrance. New hedgerow to the immediate west and south of the BESS compound is proposed to be managed at a height of 6m and will have a width of between 3-5m. Planting directly to the south of the BESS is restricted due to the existing overhead powerlines, therefore tree planting in this location is unachievable for safety reasons. However, the applicant is willing to manage the proposed hedge in this location at a height of 6m, in order to offer a softer screened edge to the BESS compound.

95. The submitted Landscape and Visual Impact Assessment (LVIA) states that there would be limited to no visibility of the proposed development from Allerton Bywater Village, although there would be the potential for brief glimpses from properties fronting Park Lane. From Ledston, views would be negligible and screened by vegetation. From Kippax, there would be long-distance limited to no visibility of the site, although properties on the southern edge may have glimpses from the upper storeys of windows. From the residential property at the Grade II Listed Home Farm and neighbouring properties, views will be screened by vegetation with potential for limited visibility of the proposed development within winter months. It is not considered that from these locations there would be any significant visual impact in terms of views from residential properties, due to the separation distances to the site, the topography of the area, existing vegetation and the proposed planting which would lend itself to screening and softening the proposal.

96. The closest dwelling is at the grade II Listed Low Lodge. At present, there is a tall hedge which surrounds the property, but there is the potential for existing views of the application site from garden areas and at the entrance to the property off Barnsdale Road. Directly to the north of the property, the field boundary has significant gaps where the application site is visible from the roadside. The proposed new planting to the north of the BESS is nevertheless considered substantial, in particular the row of 81 trees and hedgerow along the access road, which will screen views of the site from Barnsdale Road. There will also be 9 trees planted close to the Low Lodge western boundary to avoid any potential views lost. As shown within LVIA, Viewpoint 1 demonstrates that once the proposed planting has matured, the site will be fully screened from this location. There may still be potential views from Low Lodge, such as through gaps in existing vegetation, but these views will be obscured by significant proposed landscaping, including the 9 trees and hedgerow adjacent to the property's western boundary. There is also a separation distance of 300m to the proposed substation area, with a proposed wetland area in between which is to be enclosed in hedging. It should also be noted that the proposed substation, which is the closest proposed built form to the property, has extant permission under the approved application for the solar farm, ref. 20/07999/FU. The impact on views from the rear garden area of Low Lodge as a result of the proposed development is therefore not considered substantially harmful.

97. Additional landscaping information was requested from planning officers after submission relating to potential views of the application site from the south. There is a

level of concern that the proposed screening south of the BESS only relies on 6m high hedgerow planting, as tree planting is unachievable here due to the overhead powerlines. Although there is a gap of 300m to Park Lane, Allerton Bywater and an existing line of trees run along the southern site boundary, there are however gaps within this hedgerow and a public footpath runs adjacent to the south of this line of hedgerow.

98. Additional visualisation information was requested from two viewpoints; namely from Park Lane looking northwards (Viewpoint 2) and from the non-definitive footpath, where there are gaps in the southern field boundary (Viewpoint 9). The submitted LVIA claims that the majority of the site from these locations is well screened by existing vegetation, despite the trees, hedgerow and scrub not being in leaf during winter. Part of the substation control building would be visible at points, however these effects would be localised to one or two gaps in the existing hedgerow. With proposed hedgerow planting, these effects would be reduced.

99. The Landscape Team consider nevertheless that the viewpoint images within the LVIA from Viewpoints 2 and 9 show that the current southern field boundary offers poor screening particularly in the winter. The existing southern field boundary relies on mid-summer foliage to screen visual impacts. Given spacing of trees along this hedgerow, this boundary offers poor screening to footpath users and overlooking residents along Park Lane, particularly in the winter. The discontinuous nature of existing hedgerow confirms need for sufficient screen planting to site boundary. It was therefore recommended by the Landscape Team to significantly increase the number of evergreen species within the proposed hedge south of the BESS, as well as ensuring it will be managed at a height of 6m, to screen the tallest equipment.

100. Throughout the course of the planning application, there have been several revisions to the proposed landscape scheme to ensure that it would deliver adequate screening and appropriate species provision. It has been agreed with the applicant that this hedgerow is to be managed at a height of 6m and a width of 3-5m, which can be secured in a maintenance strategy via planning condition. The species composition of this hedge has also been improved since its original submission to achieve a higher proportion of evergreen species, to reduce winter views. The Landscape Team consider that the total evergreen/ semi-evergreen species should be a minimum of 30% evergreen, however raised some concern over the inclusion of Ligustrum Vulgare (wild privet), a deciduous or semi-evergreen shrub that grows to heights of only 2.5 to 4m.

101. The proposed composition of the hedge is now 40% evergreen or semi evergreen. Wild privet (20%) is relatively quick growing and will provide a degree of evergreen screening sooner but will be reinforced alongside evergreen holly (20%). The remainder of the species of the hedge will provide the height of up to 6m. It should be highlighted that the footpath south of the field boundary (ref. Garforth) has not been formally adopted and is a non-definitive footpath. Views of the site from this non-definitive footpath through the discontinuous existing vegetation are only likely to be achieved at specific positions and oblique angles, with the existing vegetation well established directly to the south of the BESS. Park Lane, Allerton Bywater is also located 300m from the application site. It should also be noted that the substation compound, which would provide the tallest part of the development has already been approved in the solar farm application and thus has extant planning permission. The proposed BESS would have a maximum height of 4.5m and would be adequately softened, if not screened, by the landscaping scheme.

102. There is also some concern regarding the removal of a section of hedgerow to the western boundary of the existing Ledston substation in order for the cable trench to connect to the substation. The removal of a section of this hedgerow has the potential to increase the visibility of the substation from the surrounding area. It has been confirmed nevertheless that only a 2m length section of this hedgerow will need to be removed and will be reinstated by the applicant once the enabling works are complete. The exact position of this section of hedgerow removal has however yet to be confirmed as it will rely on agreement with National Grid. This can therefore be suitably conditioned so that details of the exact location, and width of hedge removal is submitted to and agreed by the local planning authority. Given that the proposal would result in a 2m length loss of hedgerow in comparison to the 50m length of hedge to be retained, in context, this would not result in visual and landscape effects of significance.

103. There would inevitably be some harm to local character because of the proposed BESS development, however, the harm would not be substantial on delivery of the proposed landscaping scheme. The proposed planting is considered to sufficiently screen the proposed development through the row of a significant number of trees north of the proposal and a 6m high hedgerow to the south. There may be some limited views available from public vantage points of the proposed development, nevertheless views will be limited and will have vegetation in between. It is considered that the proposed landscaping will suitably assist in assimilating the development into the open pastoral landscape and therefore reduce the overall landscape harm.

104. This consideration is assessed in the 'Balance of Planning Considerations' section towards the end of this report.

4. Amenity

105. Saved policies GP5 and BD5 note that proposals should protect amenity, and this advice is reiterated in adopted policy P10. Para. 191 of the Framework also states that new development should be appropriate for its location, considering the effects that could arise from the development, including through noise and light pollution.

106. The operation of the proposal is likely to produce noise on both an intermittent and constant basis, where energy is being transferred in and out of the system. It is understood that BESS operational noise is typically dominated by cooling fan noise, but also low frequency sound may also feature. Developments such as electrical substations, inverters etc are likely to generate low frequency sound which can travel relatively large distances and penetrate buildings causing amenity issues even at low volumes because of their long wavelength and characteristic hum in the typical 50hz and 100hz frequencies. This will particularly be the case in the proposed location where background/ ambient sound levels are likely to be low both during the day and night times given little masking sound.

107. The applicant has submitted a noise assessment in support of the application, which has been reviewed by the Environmental Health Service, who agree with the conclusion that noise from the development is not likely to result in adverse effects on residential amenity. As such, a planning condition is recommended requiring a post-completion sound test, to confirm that noise levels do not exceed those predicted in the submitted noise assessment. Should sound levels be found to be higher than acceptable limits, immediate mitigation measures would be required and implemented until compliance can de demonstrated, with the results submitted to and for the local planning authority's written approval. On this basis the findings of the applicant's noise

assessment are considered to be acceptable, and no perceived adverse impact is likely to arise.

108. With regards to other potential impacts on residential amenity, the site would attract intermittent vehicle movements for staff to make service visits. These would be relatively few and, overall, the proposal is not considered likely to be harmful to amenity in this respect. The proposed development also does not incorporate any proposed lighting. As such the overall findings indicate that there would be no adverse harm to the amenity of occupants living in nearby property, to comply with saved policies GP5 and BD5, adopted policy P10 and para 191 of the Framework.

5. Fire Safety:

109. The PPG: 'Low Carbon and Renewable Energy' has been updated such that, since 14 August 2023, local planning authorities receiving planning applications for battery energy storage systems of 1MWh or over are encouraged to consult with their local fire and rescue service prior to deciding the planning application. This is to ensure that the fire and rescue service are given the opportunity to provide their views on the application to identify the potential mitigations which could be put in place in the event of an incident, and so these views can be taken into account when determining the application. The PPG also encourages local planning authorities to consider guidance produced by the National Fire Chiefs Council (NFCC) on BESS developments.

110. The PPG also states that applicants are encouraged to engage with the local fire and rescue service before submitting a planning application. It is stated that this is to ensure that matters relating to the siting and location of battery energy storage systems, in particular in the event of an incident, prevention of the impact of thermal runway, and emergency services access can be considered before an application is made.

111. West Yorkshire Fire and Rescue Service (WYFRS) has provided three separate consultation responses to the planning application. The first WYFRS response was received prior to the PPG update on BESS. Whilst they made no objection to the proposal, the first consultation response highlighted the potential risks of fire, all of which could result in vapour cloud, thermal runaway and explosion. Any fire response would result in the installation being doused with significant amounts of water, and ideally subject to full submersion of the batteries for a period of 24 hours, requiring approx. 5.5 million litres of water. This would inevitably result in a significant impact on the surrounding area as waters running off from such a fire would likely be contaminated.

112. There is significant concern from local residents on the issue of fire safety and the adverse impact on local communities should a fire event occur. Commonly referenced is a fire which occurred at an operational 20MW BESS in Liverpool in February 2020. This is the only known incident at a BESS to date in the UK.

113. It is noted that Planning Inspectors have considered fire safety on several appeals for BESS development proposed in England. For example, an appeal relating to a solar farm and battery energy storage facility within Mid Devon District Council (appeal ref. PP/Y1138/W/22/3293104), was decided through a public inquiry in 2022 and was recovered by the Secretary of State for decision. In that case, the Planning Inspector correctly alluded to para. 194 of the Framework and considered that it was not for the planning system to deem the safety of these installations, stating,

"*Underlying all these matters is the fact that other regimes operate in this field to regulate the safe operation of such installations. National policy is clear that the focus of planning decisions should be on whether a proposal is an acceptable use of land, rather than the control of processes where these are subject to separate regimes. Planning decisions should assume that these regimes will operate effectively. For the above reasons there is nothing in relation to the safety of the BESS which should weigh against the proposal in the planning balance.*"

The relevant Secretary of State agreed with the Planning Inspector's decision in this regard.

114. The PPG supports the principle of BESS proposals, with matters relating to potential mitigations in the event of an incident to be considered, rather than for local authorities to determine whether the BESS will operate safely. Following the initial response from WYFRS, the applicant has engaged with WYFRS to address the concerns raised. A Fire Safety Management Plan has been submitted with the application and there has been further email correspondence with WYFRS to answer specific queries regarding the proposal. The Management plan sets out safety measures, including detecting capabilities to identify potential fire risks, this includes that the battery management system will monitor and stop operation if temperature exceeds limits. This would be continually monitored from a remote-control centre, akin to other energy storage and generation developments. Whilst there are fire risks associated with any type of energy storage development, the risks and harm of the proposed development is considered to be low because of the required 'at-source' mitigation proposed.

115. In their other two consultee responses, the WYFRS has reviewed the proposed specification and mitigations against the recommendations set out within the National Fire Chiefs Council Guidance. They conclude that most of the proposal accords with the guidance. There are only the following aspects which required clarification from the Applicant:

- The selected suppression system has not been selected by the applicant at this stage so cannot be reviewed. This system will nevertheless be provided during procurement phase and a condition will state that this is required to be submitted pre-operation;
- Two vehicle access points are recommended in NFCC Guidance. The current design allows for the site compound to be accessed from two directions, but only from one point off the main road. The applicant nevertheless states that additional passing places have been implemented to ensure the WYFS could efficiently and effectively deploy a tactical response to any fire, allowing for multiple fire engines to access the site;
- In NFCC guidance, a minimum distance between units is 6m. The proposed distance is 3m, based on applicant's supplier recommendations and insurance; and,
- NFCC Guidance states that there should be a 25m distance between site and adjacent buildings. The only building within 25m is the substation building which will largely be unmanned.

116. The Management Plan indicates that there is the intention for continued engagement with the fire service, pre-operation and throughout the lifetime of the development. The applicant is to provide a pre-fire plan to the fire service on an annual basis. This would ensure that any changes to industry best practice throughout the lifetime of the development can be reflected within the BESS proposal's management plan. This is considered reasonable and a planning condition is recommended to secure this.

117. The Management Plan incorporates a containment strategy, so that in the event of any fire response, waters (contaminated or otherwise) would be contained within the containment area of the BESS. This water containment feature provides capacity for full water containment of circa. 5.5 million litres, which is the figure stated within WYFRS's initial response. This measure would ensure that any and all fire waters would not contaminate the surrounding land and watercourses following a fire event. The applicant has additionally suggested that they would accept a pre-commencement condition being imposed on any planning permission, to continue to update the Fire Safety Management Plan through continued engagement with the fire service, for the development's duration.

118. As such, fire risk would be satisfactory mitigated in accordance with the recommended best practice. The possible impact of a potential fire event has also been appropriately considered, such as from a potential response from the fire service with appropriate water containment on site. This complies with adopted policy Water 2, saved policy GP5 and para. 191 of the Framework in respect of protecting water quality, avoiding pollution and impacts on health, living conditions and natural environment.

6. Heritage

119. Adopted policy P11 requires the historic environment to be conserved and enhanced, particularly those elements which give Leeds its distinct identity. Development proposals should also demonstrate a full understanding of any historic assets affected, including known or potential archaeological remains. Paras. 200 to 205 of the Framework requires local planning authorities to consider the impact of proposed development on the significance of heritage assets. Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 states that for development which affects the setting of a listed building, the council must have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

120. With regards to archaeology, the site has potential for historic archaeological remains. West Yorkshire Archaeology Advisory Service consider that a planning condition could be added to an approval to cover a watching brief and metal detector survey on the site prior to the commencement of development. The metal detector survey should scan the footprint of the site prior to works starting and the watching brief should monitor any areas where soil stripping or excavation takes place. This is considered suitable to deal with matters regarding archaeology.

121. Within the vicinity of the site there is a grade II Listed Milepost off Barnsdale Road close to the site entrance. Located 500m to the north is a grade II Listed barn within the Home Farm farmstead. Within the wider surrounding area is the grade I Ledston Hall and grade II* Ledston Hall Registered Park and Garden. It is considered however that there is sufficient distance from the application site to these heritage assets, with existing and proposed vegetation in between and therefore it is not considered that the proposed development would impact the setting of these assets.

122. There is the potential for limited visibility of the site from the Grade II Listed barn at Home Farm, approximately 500m north of the site. However, these views would be long-distance and would be screened by the substantial proposed hedgerow and tree planting along the northern boundary of the site. The proposed development is not considered to harm the setting or special historic interest of the property.

123. The closest listed building is the grade II Listed Low Lodge with associated gate piers and wall. This property is located by the proposed access junction off Barnsdale Road, 300m to the east of the proposed BESS compound. Low Lodge is a single storey stone-built dwelling, which has high hedging along its garden rear boundary. The proposed access track would immediately pass by the grade II Listed Low Lodge, its gate piers and walls. The proposed development has the potential to harm the setting of this heritage asset. Therefore, regard must be had to the desirability of preserving its setting, or any features of special architectural or historic interest.

124. The submitted Heritage Statement indicates that the proposed BESS within the surroundings of the Grade II Listed Low Lodge would result in some harm to the significance of the asset in terms of historical interest. It also indicates that the change to its setting would however cause less than substantial harm (at the very lowest end of the scale). The Conservation Team consider the proposal to be acceptable subject to the same mitigation measures being implemented as approved in the solar park permission. This includes landscaping to screen the 'harm' caused by the solar farm and supporting infrastructure. The design details and materials of the control building, BESS and access road are also requested to be conditioned to sit comfortably with the rural character.

125. Without mitigation, the proposed substation compound and battery energy storage compound are likely to be visible from the entrance and exit to the lodge through the Listed gate piers and along the trackway into the application site. It should be noted however that these would be viewed beyond a foreground of electrical infrastructure (i.e. the existing substation complex off Barnsdale Road and existing electricity pylons). The proposed tree and hedgerow planting to the north of the site access road, as well as the 6m high hedgerow planting surrounding the site infrastructure would assist to screen views of the proposal from the affected areas in proximity to the asset. There may be some limited views available from Barnsdale Road of the proposed development with the listed heritage asset in the foreground, in particular in the earlier years prior to the vegetation reaching full maturity, nevertheless the harm is considered to be minimal in context. There would also be additional comings and goings compared with the approved solar park, to build the BESS, nevertheless this harm would be temporary for a period of 6 months, which is not considered unreasonable. With reference to para. 208 of the Framework,

> *'Where a development proposal will 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 proposal including, where appropriate, securing its optimum viable use.'*

126. This consideration is assessed in the 'Balance of Planning Considerations' section towards the end of this report.

7. Important species and habitat and biodiversity:

127. Adopted policy G8 states that development will not be permitted which would seriously harm, either directly or indirectly, any sites designated of national, regional or local importance for biodiversity. Adopted policy G9, in addition to other matters, requires that development demonstrates an overall net-gain for biodiversity commensurate with the scale of the development. National policy requires all major developments to provide a 10% biodiversity net gain uplift.

128. The application is supported by an Ecological Assessment and a Biodiversity Net Gain Assessment. The Ecological Assessment indicates that the site comprises

modified grassland, with no habitats of principal importance on site. Habitats on site with the greatest ecological value are the boundary hedgerows, the majority of which will be retained, aside from the 2m length of hedgerow lost at the rear boundary of the existing Ledston Substation. This loss of habitat will be in part compensated for through the provision of new species-rich grassland, native scrub, tree planting and hedgerow within the proposed landscaping strategy. The application has the potential to impact on Great Crested Newt (GCN) habitat, as the site falls within the amber risk zone. Therefore, the same GCN Method Statement agreed for the solar farm should also be in place for the construction phase and Management Plan in place for operational phase to ensure negligible effect for amphibians on/ near to the site. Four nest boxes for a range of species is anticipated to result in a negligible effect for birds. The site has been found to be of low value for foraging/commuting bats, however a total of six bat boxes would be installed on site to enhance the potential for roosting bats. There was no evidence of badgers, hedgehog, and brown hare, however measures to protect these species would be outlined within the Construction Environmental Management Plan (CEMP). The newly created hedgerows and wildflower grassland would support foraging opportunities for these species.

129. In terms of Biodiversity Net Gain, the proposal would create a net gain of habitat units of 75.73%, through the creation of species-rich grassland and the wetland planting area drainage system. In relation to linear hedgerow units, there is to be a net gain of hedgerow units of 170.75% through the retention of majority of hedges on site and addition of substantial new hedgerow planting. There will be no change to no change in watercourse units. This is compliant with adopted policy G9 and para. 174(d) of the Framework, and as such is acceptable to the LCC Nature Team.

130. The LCC Nature Team recommend that conditions are added to the decision relating to the requirement for a Construction Environmental Management Plan, a Landscape & Biodiversity Net Gain Management Plan, BNG Habitat Monitoring Reports, Method Statement for GCN and for plans to be submitted relating to bat and bird pole mounted roosting. A condition for a Lighting Strategy for bats is also recommended, notwithstanding that no site lighting is proposed. Nevertheless, this condition should be included for this Strategy to be submitted in the event of lighting to be installed on site in the future.

131. Concern has been raised by members of the public, the RSPB and the Yorkshire Wildlife Trust over the potential for site waste-water runoff to potentially contaminate watercourses and, further downstream, the Fairburn Ings Nature Reserve as well as the Fairburn and Newton Ings SSSI, following any tactical response of the Fire Service to a fire event at the facility. It is considered however that due to the proposed water containment drainage area on site, all fire waters can be contained on site and therefore will not pollute land outside of the site area. The risk to sensitive receptors is therefore considered to be minimised.

8. Flood Risk:

132. Adopted policy EN5 requires that development should, where possible, avoid flood risk areas and when that is not possible, control runoff rates. Adopted policy Water 7 on surface water runoff requires developments to ensure no increase in the rate of surface water run-off to the existing formal drainage system.

133. Most of the application site is located within Flood Zone 1, with a small area covering the site access track being located within flood zone 2 and 3. The surfacing to the battery farm area and access road will be of a permeable nature to allow most of the rainfall to permeate down into the sub strata. The applicant proposes to submit a flood

emergency plan to cover the scenario when urgent maintenance is required during an unlikely flood event, given the access track is located within flood zone 2 and 3, which is to be conditioned. Based on the Flood Risk Assessment provided, LCC's Flood Risk Management Team has no objections to the proposal subject to planning conditions being imposed. As such the application is acceptable with regards to drainage and flood risk, in accordance with adopted policies EN5 and Water 7.

9. Contaminated Land

134. Adopted policy Land 1 seeks to ensure the risk created by actual and potential contamination is addressed and applicants are required to submit information regarding the status of sites in terms of contamination. Saved policy GP5 requires development proposals to resolve detailed planning considerations including land stability and contamination.

135. A Phase 1 Land Contamination Assessment was submitted with the solar farm application which identified potential environmental risks associated with the application site and the wider solar farm application area, having regard to its proposed end use. The proposal is of low vulnerability and therefore planning conditions relating to contaminated land issues imposed on permission ref. 20/07999/FU would be relevant to this application. A more detailed Phase 2 Assessment, to identify the specific mitigation measures required, can be secured through the imposition of a suitably worded planning condition. As such, the proposal accords with adopted policy Land 1 and saved policy GP5, and is therefore acceptable in this regard.

10. Highway Safety:

136. Adopted policy T2 states that new development should be located within accessible locations. Significant trip generating uses will need to provide Transport Assessments. Although the site does not meet accessibility standards, it is considered that once built and operational, the proposals would generate minimal traffic, other than that associated with occasional maintenance vehicles, and as such is considered acceptable.

137. A Transport Statement has been submitted which considers the impact to the local highway network. One of the key highway safety impacts would be during the anticipated 6-month construction period. Peak traffic generation would occur during the first two months of construction with a maximum of 48 vehicle movements per working day (18 HGV + 30 Car/LGV movements in total). LCC Highways acknowledge that the construction traffic would be temporary and is not considered severe in terms of the safe and efficient operation of the public highway in the vicinity of the site. Once constructed, the proposals would generate minimal traffic, other than that associated with occasional maintenance vehicles. Overall, the proposals are considered acceptable in this regard.

138. A 4.5m wide access track is to be constructed, utilising an existing access junction off Barnsdale Road. The existing junction off Barnsdale Road will need to be upgraded and widened to accommodate safe access and egress. It should be noted that this is the same access requirement for the approved solar park. This will require an Agreement under S278 of the Highways Act and a planning condition is recommended in relation to junction arrangements, which is also a condition of the solar park permission.

139. Given the above requirements, the proposal is considered to comply with adopted policy T2 and saved policy GP5 as the proposed development does not raise any significant highway safety concerns.

11. Representations

140. The proposed development has generated substantial concern from local residents, with the application receiving 907 objections; all of which have been taken into account. The main grounds for concern relate primarily to fire safety and the scheme's impact on the Green Belt, which have been covered in this report.

141. Another common concern is the devaluation of nearby properties. This however is not a material planning consideration and cannot form part of the decision-making process.

142. All other material planning considerations raised through representations are considered to have been covered within this report.

12. Planning Balance

143. In accordance with the requirements of the adopted and saved policies of the Leeds development plan, the Framework and PPG set out above, it is considered that substantial weight should be attached to the proposed development forming inappropriate development in the Green Belt. Further weight of significance is attached to the harm caused by the development to the openness of the Green Belt, because of the presence of industrialised structures on land that is currently in agricultural use and generally free from obstruction (other than for the existing line of pylons and substation). The proposal would also undermine two of the five identified purposes that Green Belts serve, as well as adverse effects on the landscape's character and visual amenity. Whilst it is acknowledged that there would be less than substantial harm on nearby listed assets, the harm to their historical importance and settings is nevertheless acknowledged.

144. Para. 152 of the Framework states that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. Para. 153 of the Framework adds that '*very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations.'*

The applicant's case for very special circumstances:

145. The submitted Planning Statement sets out the applicant's case for very special circumstances, which can be summarised as follows:

- The principle of renewable development has already been established in this part of the Green Belt through the Barnsdale Solar Park planning permission. Furthermore, the proposed Development will not extend the physical footprint of development and impact upon the Green Belt;
- The environmental benefits associated with energy storage;
- There are no suitable sites located out of the Green Belt and the site maximizes benefits such as electricity storage and co-locational benefits;
- Biodiversity Net Gain of 75.73% Habitat Units and 170.75% Hedgerow Units;
- Economic and social benefits.

Barnsdale Solar Park consent

146. It is common ground that the proposed development would be sited within the same application area as the solar park development approved under planning permission ref. 20/07999/FU. The proposed 32 battery units and 16 inverter/transformer units are to be located within a similar sized area as the approved hardstanding within the footprint of this permission. The other proposed infrastructure, including the 66kV substation compound comprising of switchgear, a transformer, a substation control room, an auxiliary building, parking area and access track, have also been approved as part of the solar park development. Regard of some weight can be afforded to the fact that the application site has extant planning permission for energy infrastructure but this is limited because the approved solar park has not yet been constructed. However the co-location of energy generation and energy storage infrastructure is endorsed within the Government's Smart Systems and Flexibility Plan (2021), because such developments go hand in hand to better balance Grid needs and demands. Nevertheless, the proposal must also be assessed as a stand-alone development, on its own merits, given that there is no certainty at this stage that the solar park permission will be constructed and made operational.

Environmental benefits associated with energy storage.

147. The application is for a battery storage facility of up to 40MW. Whilst the proposed development would not produce energy, it would support the National Grid by providing stored electricity at times when demand rises above generation and absorb excess electricity when demand is below the level of generation. Energy storage can help to maintain reliable energy supplies by using stored electricity to compensate for lows in output from intermittent renewable technologies such as wind or solar, or power plants breaking down. It can also provide greater predictability of energy provision to assist in avoiding 'energy blackouts'. Energy storage using batteries is therefore considered to contribute towards keeping the UK's electricity grid stable and resilient to new demands and new sources of supply.

148. The increasing dependence on renewable energy and in particular wind and solar energy has led to fluctuations in supply dependant on the weather, hence the increased need for storage facilities. These store excess energy at times of high renewable generation and provide somewhere to get energy from when demands are high and generation output is low. The National Grid consider that BESS developments play a key part in ensuring homes and businesses can be powered by green energy as energy can be released from battery storage systems during times of peak demand, keeping costs down and electricity flowing. The Future Energy Scenarios Report 2022 produced by the National Grid estimates that electricity storage will need to increase significantly to support the decarbonisation of the system with as much as twelve-fold and seven-fold increases in capacity and volume respectively from 2021 to 2050 to meet the challenging Net Zero targets.

149. Regard can be had to the references made to energy storage in the British Energy Security Strategy (2022). This Strategy identifies the government intention to accelerate our domestic supply of clean and affordable electricity by accelerating the connecting network infrastructure to support it. As one solution, all forms of flexibility with sufficient large-scale, long-duration electricity storage is encouraged to balance the overall system by developing appropriate policy to enable investment. This is to ensure a more flexible and efficient system for generators and users.

150. The proposed development also seeks co-location of BESS with the approved solar farm would also support the integration of a renewable generator (once operational) into the local and UK energy system, flattening out the intermittent nature of supply from the solar development.

151. It is stated within the submission, that although modest in scale, the proposed scheme would make a valuable contribution to cutting greenhouse gas emissions, by increasing the opportunity to store energy, and this attracts substantial weight. The proposed planning statement states that the development would save 6,900 tonnes of carbon dioxide per year, which is the equivalent to the emissions saved by taking 4,300 cars off the UK's roads every year. The proposed development with an installed capacity of up to 40MW, is also considered to be sufficient to supply electricity for approximately 48,000 homes during peak times for 2 hours.

152. It is considered that the proposal provides clear benefits in assisting the transition to a low carbon future in a changing climate, through supporting renewable and low carbon energy and associated infrastructure. This is in accordance with para. 157 of the Framework, which states:

> *'The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.'*

Alternative Sites Assessment

153. Although there is clear support for BESS developments within the context of national policy, it is vital that such facilities are appropriately located. An Alternative Sites Assessment has been submitted with the application at the request of the local planning authority. The Assessment is premised on the basis that it is crucial for a developer to ensure that a BESS development is located a short distance to the grid connection point for operation and economic viability reasons. A developer also needs to have gained secured capacity in the network to accommodate the size of their BESS development, as well as having adequate land physically capable of accommodating a BESS. It is recommended that material regard should be had to these issues.

154. The applicant's Alternative Sites Assessment considers the 14 substations within Leeds Authority boundary that are, on paper, able to accommodate a 40MW BESS. The reasons for discounting alternatives include the close proximity to residential dwellings, allocated or consented for other uses, tree cover, heritage designations, nature conservation designations, visual prominence, grid connection route, flood risk, located on Best and Most Versatile Agricultural Land and within the designated Leeds Special Landscape Area. Some parcels of land around substations have been discounted on the basis of being located within the Green Belt and have been ruled out due to significant impact on openness. Although the Assessment is considered to have robustly ruled out any non-Green Belt alternative sites, there is the possibility that there is a more appropriate site within the Leeds Green Belt, which would have less impact on openness. Nevertheless, acknowledgement of the consented solar park, with which infrastructure can be shared, provides benefits through co-location. It is accepted that looking at land surrounding the Ledston substation, the site is appropriately located outside of Flood Zone 3 and 2, outside of Leeds Special

Landscape Area, outside of nature conservation designations and over 300m away from residential properties.

155. It is therefore recommended that the Alternative Site Assessment can be relied upon, is robust and provides the only available site within Leeds at the current time, based upon several constraints. In particular, the assessment robustly demonstrates that there are no alternative sites outside of the Green Belt within the Leeds Authority boundary which could accommodate the scale of the proposed BESS development at this time. When considering areas within the Green Belt surrounding substations which have the capacity available to accommodate the BESS proposal, there are no evident sites which would result in less impact on openness compared to the application site. In terms the land surrounding Ledston Substation, the application site is outside of a number of sensitive designations within the local area, such as landscape designations and nature conservation areas. It must also be acknowledged that the application site has already received planning permission for renewable energy infrastructure.

Economic, Social and Environmental benefits

156. In additional to above, the proposed development will provide other benefits through a Biodiversity Net Gain, comprising of a 75.73% increase in Habitat Units and 170.75% Hedgerow Units. The Planning Statement also outlines that the proposal would bring a total investment of circa £27 million over its lifetime and through a local initiative scheme, the Applicant states that there is the intention to maximise the percentage of this to be spent locally, through working with local contractors, which will benefit the local economy.

Planning Balance Assessment

157. Weighing against the proposal, the proposed development constitutes inappropriate development in the Green Belt, by definition, and this carries substantial weight. This harm is reinforced by the proposal's unacceptable impact on openness and the relevant spatial and visual aspects of this part of the Green Belt, because of the presence of industrial structures on land that is currently pastoral and free from obstruction. The proposal would therefore not assist in safeguarding the countryside from encroachment, which forms one on the five purposes that Green Belts serve. By way of its industrial design and materials, the proposal would not assimilate into the open pastoral landscape and this would also result in some impact on the settings of nearby listed buildings and assets (though this is not considered to be substantial).

158. However, the mitigation planting (which would fully take effect when matured), would assist in offsetting the harm through screening by extensive tree and hedge planting, and this could be reinforced by planting introduced by the approved solar park scheme. It is considered that where views are most likely to be encountered are from the access entry point off Barnsdale Road close to Low Lodge and from the footpath to the south of the site, close to the field boundary. It is nevertheless not considered that unobscured views will be available, due to the extensive planting scheme proposed. It is also important to note that there are already a number of electrical infrastructure features within close proximity of the site, such as the substation and pylons. It is also considered that the harm to the setting of nearby listed buildings and assets would not be substantially more impactful than the approved solar farm.

159. While national and local planning policy specifically regarding BESS is presently very limited, one of the key aims of the Framework is to achieve sustainable development. In favour of the proposal, given that the purpose of the proposed development is to

prevent energy wastage and support the transition to renewable energy generation systems, it is considered that such benefits of the proposal should be afforded significant weight in supporting the broad principle of the proposal.

160. The national Planning Practice Guidance on battery energy storage provides clear support BESS, stating that it can enable us to use energy more flexibly and de-carbonise our energy system cost-effectively. The PPG also highlights the benefits of maximising the usable output from intermittent low carbon generation such as solar, balancing the system at lower cost, The co-location of the BESS with the approved Barnsdale solar park (ref. 20/07999/FU) is afforded great weight.

161. Great weight can also be afforded to the resultant bio-diversity net gain, which exceeds the required 10% uplift and would reinforce and bolster the Leeds Habitat Network and local green infrastructure corridors.

162. The scale of job opportunities associated with the proposed development is small but nevertheless this attracts significant weight in favour.

163. Having regard to all of the above information, in this particular instance it is considered that, on balance, the benefits of the proposed development are compelling and clearly outweigh the harm by reason of inappropriateness and all other identified harm.

CONCLUSION:

164. Having regard to all of the above information, on balance, it is considered that the benefits of the proposed development outweigh the harm by reason of inappropriateness and all other identified harms referred to above. It is considered that very special circumstances have been demonstrated and exist to outweigh the identified harm to the Green Belt, and all other harms. As such, the proposal is found to be in accordance with Leeds' adopted development plan and national planning policy and is recommended for approval.

BACKGROUND PAPERS:
Application file reference: 23/03233/FU
Certificate of ownership: B (As set out on Application Form)

APPENDIX A – Draft Conditions:

1. The development hereby permitted shall be begun before the expiration of three years from the date of this permission.

Imposed pursuant to the provisions of Section 91 of the Town and Country Planning Act 1990 as amended by Section 51 of the Planning and Compulsory Purchase Act 2004.

2. The development hereby permitted shall be carried out in accordance with the approved plans listed in the Plans and Specifications above.

For the avoidance of doubt and in the interests of proper planning.

3. The planning permission hereby granted shall be limited to a period of 40 years commencing from the date electricity is first stored or distributed to the National Grid. The local planning authority shall be notified in writing of the date of first electricity storage by or distribution from the development within 10 working days of the event date. At the end of this 40-year period, or in the event the battery energy storage system and ancillary development is no longer required for power storage and distribution in connection with Ledston Substation or becomes redundant, whichever occurs first, the development shall be permanently removed from the site and the land restored to its previous agricultural use in accordance with a scheme of works containing the details set out in Condition 4 below, that shall have previously been submitted to and approved in writing by the local planning authority under the terms also set out in Condition 4.

In the interests of monitoring the duration of the development.

4. No later than 6 months prior to the expiry of the planning permission, or within 6 months of the cessation of electricity storage and distribution by this facility, whichever is the sooner, a detailed scheme of works for the removal of the development (excluding the approved landscaping and biodiversity works) shall be submitted to and approved in writing by the local planning authority. The scheme of works shall include the following details:
i) a programme of works;
ii) an ecological scoping survey, including species surveys and mitigation;
iii) a method statement for the decommissioning and dismantling of all equipment and surfacing on site;
iv) details of any items to be retained on site;
v) a method statement for restoring the land to agriculture;
vi) timescale for the decommissioning, removal and reinstatement of the land;
vii) a method statement for the disposal/recycling of redundant equipment/structures.

The scheme of works shall be undertaken in accordance with the approved details and timescales. The local planning authority shall be notified in writing of the date of the cessation of electricity storage by or distribution from the development within 10 working days of the event date.

In the interests of returning the land to agriculture.

5. No development shall commence unless and until full external details (specifications, measurements, design, colour and finishes) of all battery units, invertors, transformers, switch gear housings/substations, control building, construction cabins, lighting, CCTV, site fences/gates and access track(s), has been submitted to and approved in writing by the Local Planning Authority. The details shall also include for the following:

i. the Control Building walls to be constructed using natural stone and its roof with

natural slate, with wooden detailing to its fenestration and doors, unless it can be demonstrated that the same or similar high quality appearance can be provided using artificial materials;

ii. the RAL reference number for ensuring that all buildings, containers, enclosures, site fences and gates are coloured in dark green prior to being installed on the site;

iii. any external lighting within the site to utilise passive infra-red (PIR) technology and designed and installed in a manner which minimises glare, light pollution and impacts on biodiversity, in particular Bats; and,

iv. an Operational Requirement Assessment for CCTV within the site.

The development shall be installed and/or carried out and maintained in accordance with the approved details.

In the interests of visual and residential amenity, landscape character, biodiversity and the Green Belt.

6. No development shall commence unless and until full construction details and scaled plans of the proposed site access junction and internal road upgrade has been submitted to and approved in writing by the Local Planning Authority. The details shall include:

i. temporary parking provision and access arrangements for the occupiers of Low Lodge;

ii. the use of high quality materials of a suitable colour and finish to respect the Listed status of Low Lodge and its setting;

iii. temporary physical protection measures to ensure that the Listed Low Lodge (including its associated gate piers and walls) are protected from loss or damage via vehicle collision;

iv. site access road cleansing arrangements, including details of the wheel wash facility and its use, to prevent the accumulation of mud, dust and debris;

v. retention and protection measures for all vegetation, unless otherwise identified to be removed on the approved plans;

vi. all other construction and surface lining details for the site access junction upgrade off Barnsdale Road; and,

vii. scheduled timings and associated management details for the delivery of the new site access junction and in-road arrangement.

The site access junction shall be constructed and managed in accordance with the approved details and shall have been completed and all approved measures fully implemented prior to the first delivery of materials for the development.

To ensure the provision of a safe and suitable new site access to serve the development and the occupants of Low Lodge and protection of its Listed status, in the interests of highway safety, residential amenity and heritage conservation.

7. No development shall commence unless and until a Construction Method Statement has been submitted to and approved in writing by the Local Planning Authority. The approved details shall be implemented at the commencement of work on site and shall thereafter be retained and employed until completion of works on site. The Construction Method Statement shall be made publicly available for the lifetime of the construction phase of the development in accordance with the approved method of publicity.

To control development impacts in the interests of highway safety, residential amenity and the environment.

8. No development shall commence unless and until a Construction Traffic Management

Plan shall be submitted to and approved in writing by the Local Planning Authority. The Plan shall specify but not be limited to:

i. No HGV deliveries to or from the approved development site to be undertaken via the M1 J47 exit slip during the peak hours of 17:15 to 18:15;
ii. No HGV waiting areas in or around the vicinity of M1 J47; and,
iii. Details of temporary traffic lights and safety signage to be installed on the adopted Highway (A656 Barnsdale Road) throughout the duration of the construction phase.

In the interests of highway safety on the strategic highway network.

9. No development shall be commenced until a 25 metre of track from the adopted highway has been fully laid out, surfaced, and drained such that loose materials and surface water does not discharge or transfer onto the adopted highway. This area shall not be used for any other purpose thereafter for the lifetime of the development.

In the interests of highway safety and residential amenity.

10. Development shall not be occupied until all areas shown on the approved plans to be used by vehicles have been fully laid out, surfaced, and drained such that surface water does not discharge or transfer onto the highway. These areas shall not be used for any other purpose thereafter.

To ensure the free and safe use of the highway.

11. Prior to the commencement of development a Construction Environmental Management Plan (CEMP: Biodiversity) shall be submitted to and approved in writing by the local planning authority. The CEMP (Biodiversity) shall put in place measures to retain and protect the 0.23 Hedgerow Units as identified in the On-site Hedgerow (B1) Baseline Units to be Retained and Enhanced in the Statutory Biodiversity Metric submitted 30.1.2024 and include the following:

a) Risk assessment of potentially damaging construction activities
b) Identification of “biodiversity protection zones”
c) Measures to avoid or reduce impacts during construction
d) Location and timings of sensitive works to avoid harm to biodiversity features, including nesting birds
e) The times during construction when specialist ecologists need to be present on site to oversee works
f) The role of a responsible person (Ecological Clerk of Works) and lines of communication
g) Use of protective fences to BS 5837:2012, exclusion barriers and warning signs

The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the local planning authority.

To ensure the protection of existing biodiversity features

12. Prior to the commencement of development a Landscape & Biodiversity Net Gain Management Plan shall be submitted to and approved in writing by the local planning authority. The Plan shall deliver a minimum of 5.31 Habitat Units and 1.99 Hedgerow Units on land identified in the Headline Results for On-site Post-Intervention in the Statutory Biodiversity submitted 30.1.2024 and include details of the following:

a) Description of features to be managed to include Baseline Metric calculations of Biodiversity Units with Condition assessments and UKHab mapping

b) Extent and location/area of proposed features and Biodiversity Units on scaled maps and plans using UKHab mapping, with Target Condition assessments and Metric calculations
c) Ecological trends and constraints on site that might influence management
d) Aims and Objectives of management to include Target Biodiversity Units and Target Condition Criteria
e) Appropriate management Actions for achieving Aims and Objectives
f) A dated Annual Work Programme (to cover the initial 5-year period following completion of development)
g) Details of the specialist ecological management body/organisation responsible for implementation of the Plan
h) How the Plan is to be funded and confirmation from the landowner that it can be delivered
i) For each of the first 5 years of the Plan, a progress report sent to the Local Planning Authority, within 3 months of each year being completed, by an appropriately qualified ecological consultant reporting on progress of the Annual Work Programme and confirmation of required Actions for the next 12 month period
j) Confirmation that habitat monitoring will be carried out in years 1, 3, 5,10, 20 and 30 and how this will be funded
k) The Plan shall set out how contingencies and/or remedial action will be identified, agreed and implemented when necessary
l) The Plan will be reviewed and updated every 5 years and implemented for the lifetime of the development
m) The approved Plan will be implemented in full accordance with the approved details.

To ensure the long-term protection and enhancement of biodiversity

12. BNG Habitat Monitoring Reports will be carried out by an appropriately qualified ecological consultant in the Years 1, 3, 5, 10, 20 and 30 following completion of development, and shall be submitted (within 3 months of each year being completed) and agreed in writing by the local planning authority. The BNG Habitat Monitoring Reports will include the following:

a) Confirmation of the number of Biodiversity Units present based on a survey at an appropriate time of year and how this compares to the 5.31 Habitat and 1.99 Hedgerow Units identified in the Headline Results for On-site Post-Intervention in the Statutory Biodiversity Metric submitted 30.1.2024
b) Where the Target Condition is not yet met provide an assessment of time to Target Condition for each habitat and any changes to management that are required
c) How the monitoring is funded and the appointed specialist ecological body

Where remedial measures or changes in management are required these will be addressed in updates of the Landscape & Biodiversity Net Gain Management Plan and it's Annual Work Programmes.

To ensure Biodiversity Units are delivered as agreed in the approved Landscape and BNG Management Plan for the lifetime of the development.

13. Prior to commencement of development a Protected Species: Reasonable Avoidance Measures Method Statement (PS:RAMMS) for Great Crested Newts shall be produced by an appropriately qualified ecological consultant and submitted to and approved by the local planning authority. The PS:RAMMS will include the following:

a) Identification of those areas/features on site that have the potential to support Great Crested Newts using appropriately scaled maps to show where these areas are.
b) Timing of works to avoid harm to Great Crested Newts.
c) Working methods to avoid harm to Great Crested Newts.

d) Person responsible for implementing the PS:RAMMS
e) The times during site clearance and construction when specialist ecologists need to be present on site to oversee works
f) The role of a responsible person (Ecological Clerk of Works) and lines of communication

The approved PS:RAMMS will be implemented in full accordance with the approved details.

To provide assurance a legally protected species will not be affected.

14. Prior to the commencement of development, a Plan shall be submitted to and approved in writing by the Local Planning Authority of pole mounted bat roosting. The agreed Plan shall show the number, specification of the bat roosting features and where they will be located, together with a timetable for implementation and commitment to being installed under the instruction of an appropriately qualified bat consultant. All approved features shall be installed prior to first operation of the development and retained in the manner as approved thereafter.

To maintain and enhance biodiversity

15. All proposed planting and enhancement shown on the revised Landscape Strategy Plan ref. NT16151-013 Rev D, shall be provided in the first planting season (between 01 November to 31 March) following commencement of development.

To provide for suitable visual screening in the interests of visual amenity and biodiversity.

16. A Landscape Management Plan, including long term design objectives, management responsibilities and maintenance schedules shall be submitted to and approved in writing by the Local Planning Authority prior to the first operation of the development. The Management Plan must conform to Leeds City Council's Landscape Management Plans (Landscape Guidance No.2) and associated checklist. The landscape management plan shall be for a period of five years and shall be carried out as approved.

To ensure successful aftercare of landscaping.

17. If within a period of five years from the date of the planting of any tree/hedge/shrub that tree/hedge/shrub, or any replacement, is removed, uprooted or destroyed or dies, or becomes, in the opinion of the Local Planning Authority, seriously damaged or defective, another tree/hedge/shrub of the same species and size as that originally planted shall be planted in the same location as soon as reasonably possible and no later than the first available planting season, unless otherwise agreed in writing by the Local Planning Authority.

To ensure maintenance of a healthy landscape scheme.

18. Prior to the commencement of development, full details of the partial removal of the existing hedgerow which surrounds the Ledston Substation off Barnsdale Road shall be submitted to and approved by the local planning authority. The submitted details should demonstrate that the existing hedge will be retained at much as possible. All other existing and remaining hedgerow within the application site shall be retained and protected from damage.

To protect and preserve existing site boundary planting in the interests of visual amenity and biodiversity.

19. The approved development shall not be commenced until a programme archaeological recording has been submitted to and approved in writing by the Local Planning Authority. This

recording shall be carried out by an appropriately qualified and experienced archaeological consultant or organisation, in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority

In the interests of appropriate archaeological recording.

20. The approved Noise Report dated April 2023 shall be implemented and retained for the life of the development. A post-completion sound test shall be carried out to confirm compliance with operational noise levels stated in the approved noise report and the results shall be submitted to and for the written approval of the Local Planning Authority within 3 months of the date electricity is first stored or distributed to the National Grid. If sound levels exceed the calculated specified impact at residential dwellings which lawfully exists or have planning permission at the date of this permission, the applicant shall undertake immediate corrective action and re-test. Once compliance can be demonstrated the results shall be re-submitted to and for the written approval of the Local Planning Authority.

In the interests of protecting the living conditions of occupants of nearby residential property.

21. Within 28 days from the receipt of a written request from the Local Planning Authority and following a complaint to the Local Planning Authority from the occupant of a residential dwelling which lawfully exists or has planning permission at the date of this permission, the BESS operator shall employ an independent and suitably qualified consultant to assess the level of noise emissions from the BESS at the complainant's property (subject to the complainant granted access for the investigation and monitoring). The noise and/or vibration assessment methodology shall be agreed in writing with the Local Planning Authority in advance of any investigation taking place. The consultant's assessment report and interpretation of the noise complaint(s), including all calculations, audio recordings and the raw data upon which those assessments and conclusions are based, shall be submitted to the Local Planning Authority for consideration within 2 months of the date of the written request of the Local Planning Authority or as may otherwise be agreed in writing. If the Local Planning Authority considers that the noise impact at the residential dwelling(s) exceeds the Leeds City Council Noise and Vibration Planning Guidance, the applicant shall undertake corrective action and re-test. Once compliance can be demonstrated the results shall be resubmitted to the Local Planning Authority for written approval.

In the interests of protecting the living conditions of occupants of nearby residential dwellings.

22. No works associated with the approved development shall take place at the site and no vehicles associated with the development shall enter or leave the site on Sundays or Public/ Bank Holidays or outside of the following hours: 0800 hours to 1800 hours Mondays to Fridays and 0900 hours to 1300 hours on Saturdays. Works that need to be undertaken outside of these hours is subject to the applicants advance notification and approval in writing by the Local Planning Authority, unless in cases of emergency where a situation poses an immediate risk to health, life, property or environment.

In the interests of living conditions of neighbouring property.

23. Prior to the first operation of the Battery Energy Storage System hereby approved, a Battery Safety Management Plan (BSMP) shall be submitted to, and agreed in writing by, the Local Planning Authority. The BSMP shall detail the type and specification of the batteries to be used and prescribe the measures to be implemented to facilitate safety during the construction, operation and decommissioning of the Battery Energy Storage System, and to be deployed in response to any incident with potential to cause pollution. An Emergency Response Plan must also be included. The BSMP should also set out a

methodology detailing how there will be continued engagement with the West Yorkshire Fire and Rescue Service with the BSMP to be updated and sent to the fire service throughout the lifetime of the development. The BSMP shall be implemented as approved and all measures shall be retained for the duration of the development.

In the interests of safety and pollution prevention.

24. Development shall not be brought into use until a suitable Flood Emergency Plan (FEP) has been submitted to the Local Planning Authority. The Flood Emergency Plan shall be based on the latest flood mapping and assessment of the current flood risks and include the following:

i) Details of advanced flood warning measures;
ii) Advanced site operation and access measures to be undertaken in the event of a flood warning
iii) Any Site evacuation measures;
iv) Details of how the FEP will be monitored during any maintenance works and who will be responsible for monitoring and ensuring the required procedures are kept in place during any emergency works.

To ensure a safe building environment for the lifetime of the development.

25. No development shall commence unless and until a Phase II Site Investigation Report to cover the land areas of the substation/ control building compound has been submitted to and approved in writing by the Local Planning Authority. Where remediation measures are shown to be necessary in the Phase II Report and/or where soil or soil forming material is being imported to site, development shall not commence until a Remediation Strategy demonstrating how the site will be made suitable for the intended use has been submitted to and approved in writing by the Local Planning Authority. The Remediation Strategy shall include a programme for all works and for the provision of Verification Reports.

To ensure that the presence of contamination is identified, risks assessed, and proposed remediation works are agreed in order to make the site 'suitable for use' with respect to land contamination.

26. If remediation is unable to proceed in accordance with the approved Remediation Strategy, or where significant unexpected contamination is encountered, or where soil or soil forming material is being imported to site, the Local Planning Authority shall be notified in writing immediately and operations on the affected part of the site shall cease. The affected part of the site shall be agreed with the Local Planning Authority in writing. An amended or new Remediation Strategy and/or Soil Importation Strategy shall be submitted to and approved in writing by the Local Planning Authority prior to any further remediation works which shall thereafter be carried out in accordance with the revised approved Strategy. Prior to the site being brought into use, where significant unexpected contamination is not encountered, the Local Planning Authority shall be notified in writing of such.

To ensure that any necessary remediation works are identified to make the site ‘suitable for use’ with respect to land contamination.

27. Should remediation works be required they shall be carried out in accordance with the approved Remediation Strategy. On completion of those works, the Verification Report(s) shall be submitted to the Local Planning Authority in accordance with the approved programme. The site or phase of a site shall not be brought into use until such time as all verification information has been approved in writing by the Local Planning Authority.

To ensure that any necessary remediation works are carried out and verified with respect to land contamination.

Planting schedule

Hedgerow along track and containment pond

Hedgerow

Number	Species	Specification	Height	Density	%
89	Acer campestre	1+1 :Transplant - seed raised :BR	60-80cm	0.45Ctr Double Staggered at 0.5m offset	5%
89	Corylus avellana	1+2 :Transplant - seed raised :Branched :3 brks :BR	60-80cm	0.45Ctr Double Staggered at 0.5m offset	5%
969	Crataegus monogyna	1+1 :Transplant - seed raised :BR	40-60cm	0.45Ctr Double Staggered at 0.5m offset	55%
89	Ilex aquifolium	Bushy :3 brks :C	40-60cm	0.45Ctr Double Staggered at 0.5m offset	5%
54	Lonicera periclymenum	Caned :Several shoots :3 brks :C	60-80cm	0.45Ctr Double Staggered at 0.5m offset	3%
441	Prunus spinosa	1+1 :Transplant - seed raised :Branched :2 brks :BR	40-60cm	0.45Ctr Double Staggered at 0.5m offset	25%
36	Rosa canina	1+1 :Transplant - seed raised :Branched :3 breaks :BR	40-60cm	0.45Ctr Double Staggered at 0.5m offset	2%

Hedgerow around BESS

Hedgerow

Number	Species	Specification	Height	Density	%
70	Acer campestre	1+1 :Transplant - seed raised :BR	60-80cm	0.45Ctr Triple Staggered at 0.5m offset	5%
70	Corylus avellana	1+2 :Transplant - seed raised :Branched :3 brks :BR	60-80cm	0.45Ctr Triple Staggered at 0.5m offset	5%
348	Crataegus monogyna	1+1 :Transplant - seed raised :BR	40-60cm	0.45Ctr Triple Staggered at 0.5m offset	25%
279	Ilex aquifolium	Bushy :3 brks :C	40-60cm	0.45Ctr Triple Staggered at 0.5m offset	20%
279	Ligustrum vulgare	Branched :3 brks :C	40-60cm	0.45Ctr Triple Staggered at 0.5m offset	20%
42	Lonicera periclymenum	Caned :Several shoots :3 brks :C	60-80cm	0.45Ctr Triple Staggered at 0.5m offset	3%
279	Prunus spinosa	1+1 :Transplant - seed raised :Branched :2 brks :BR	40-60cm	0.45Ctr Triple Staggered at 0.5m offset	20%
28	Rosa canina	Branched :3 brks :C	40-60cm	0.45Ctr Triple Staggered at 0.5m offset	2%

Tree planting

Boundary Trees

Number	Species	Specification	Height	Density
27	Alnus glutinosa	2x :Standard :Clear Stem 175-200 :3 brks :BR	250-300cm	10Ctr Double Staggered at 5m offset
27	Quercus robur	2x :Standard :Clear Stem 175-200 :3 brks :BR	250-300cm	10Ctr Double Staggered at 5m offset
27	Salix alba	2x :Standard :Clear Stem 175-200 :3 brks :BR	250-300cm	10Ctr Double Staggered at 5m offset

Scrub planting

Scrub

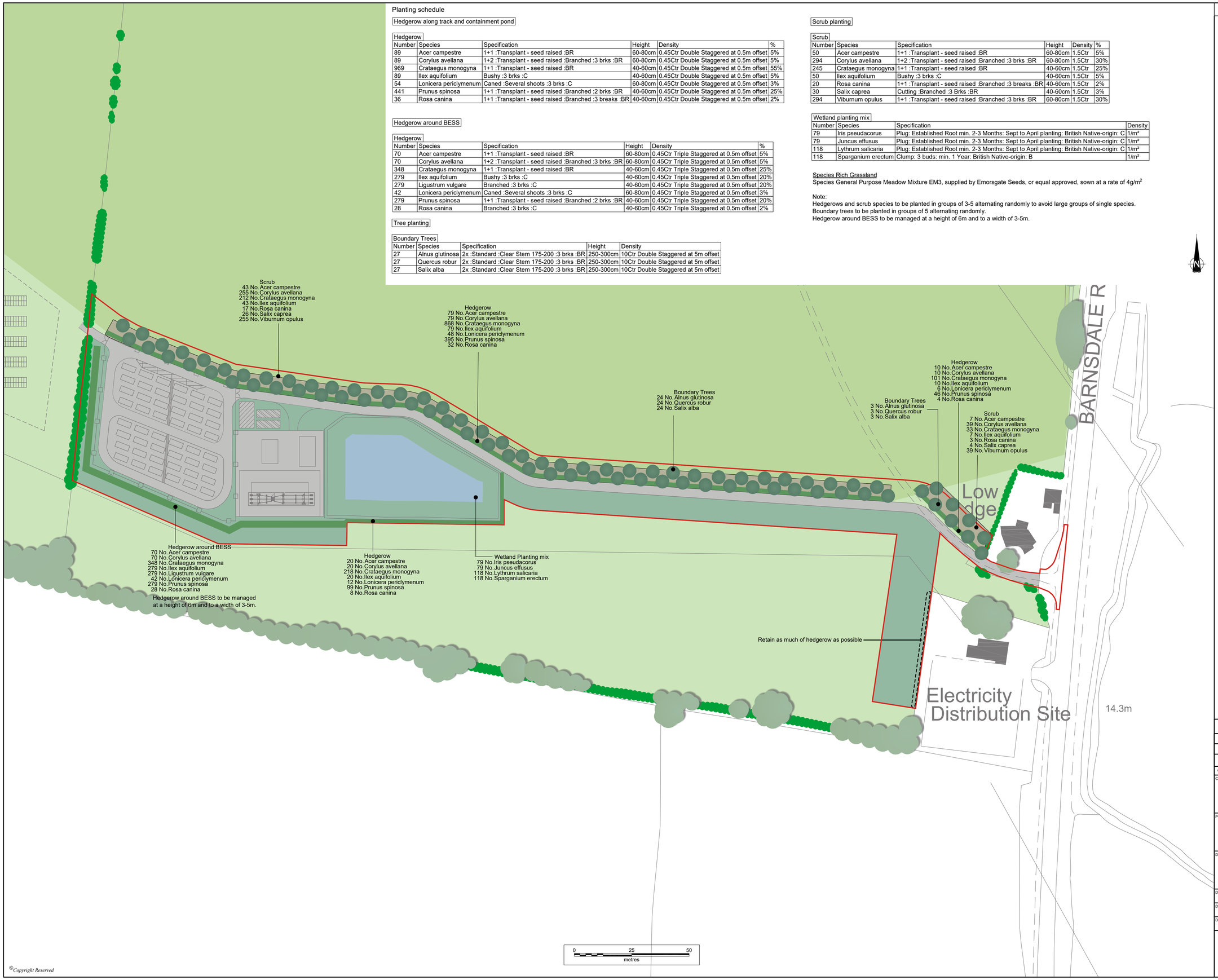
Number	Species	Specification	Height	Density	%
50	Acer campestre	1+1 :Transplant - seed raised :BR	60-80cm	1.5Ctr	5%
294	Corylus avellana	1+2 :Transplant - seed raised :Branched :3 brks :BR	60-80cm	1.5Ctr	30%
245	Crataegus monogyna	1+1 :Transplant - seed raised :BR	40-60cm	1.5Ctr	25%
50	Ilex aquifolium	Bushy :3 brks :C	40-60cm	1.5Ctr	5%
20	Rosa canina	1+1 :Transplant - seed raised :Branched :3 breaks :BR	40-60cm	1.5Ctr	2%
30	Salix caprea	Cutting :Branched :3 Brks :BR	40-60cm	1.5Ctr	3%
294	Viburnum opulus	1+1 :Transplant - seed raised :Branched :3 brks :BR	60-80cm	1.5Ctr	30%

Wetland planting mix

Number	Species	Specification	Density
79	Iris pseudacorus	Plug: Established Root min. 2-3 Months: Sept to April planting: British Native-origin: C	1/m²
79	Juncus effusus	Plug: Established Root min. 2-3 Months: Sept to April planting: British Native-origin: C	1/m²
118	Lythrum salicaria	Plug: Established Root min. 2-3 Months: Sept to April planting: British Native-origin: C	1/m²
118	Sparganium erectum	Clump: 3 buds: min. 1 Year: British Native-origin: B	1/m²

Species Rich Grassland
Species General Purpose Meadow Mixture EM3, supplied by Emorsgate Seeds, or equal approved, sown at a rate of 4g/m²

Note:
Hedgerows and scrub species to be planted in groups of 3-5 alternating randomly to avoid large groups of single species.
Boundary trees to be planted in groups of 5 alternating randomly.
Hedgerow around BESS to be managed at a height of 6m and to a width of 3-5m.



DO NOT SCALE FROM THIS DRAWING

KEY

- Site boundary
- Existing trees and woodland
- Existing hedgerows
- Proposed hedgerow planting
- Proposed tree planting in enhanced landscape buffers
- Proposed scrub planting
- Wetland planting mix
- Species rich grassland - Species General Purpose Meadow Mixture EM3, Supplied by Emorsgate Seeds or equal approved, sown at a rate of 4g/m²

REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
D	Addition of water containment area and wetland planting	12.12.23	BS	LG	LG
C	Revisions following client comments	07.11.23	AB	LG	LG
B	Revision to hedgerow planting around BESS	06.11.23	AB	LG	LG
A	Revised hedgerow planting around BESS	29.09.23	AB	LG	LG

CLIENT
BANKS RENEWABLES (BARNSDALE SOLAR PARK) LIMITED

PROJECT
BARNSDALE SOLAR PARK
BATTERY ENERGY STORAGE SYSTEM

DRAWING TITLE
LANDSCAPE STRATEGY PLAN

DRG No.	REV
NT16151-013	D

ORG SIZE	SCALE	DATE
A1	1:750	MARCH 2023

DRAWN BY	CHECKED BY	APPROVED BY
AB	JW	LG

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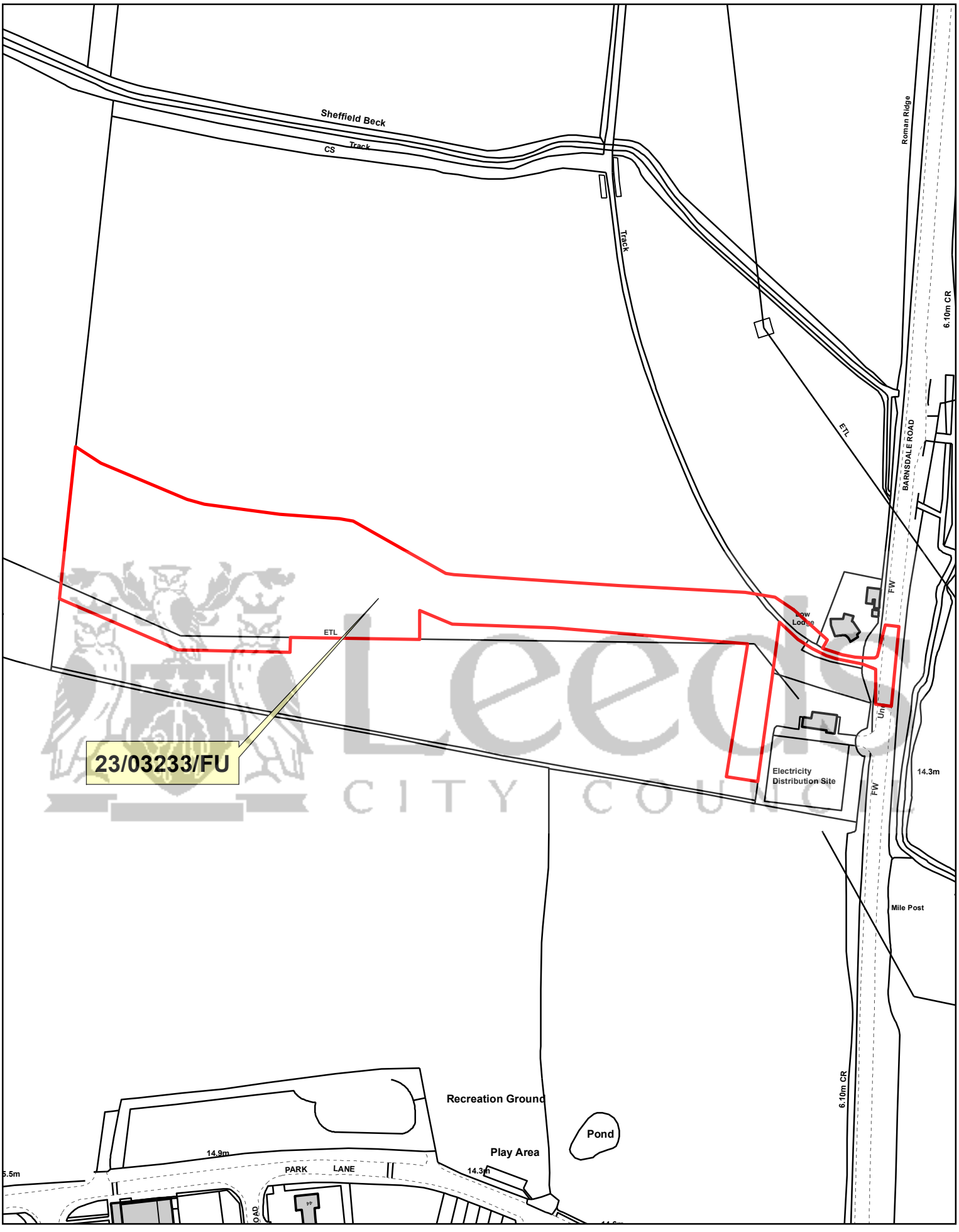
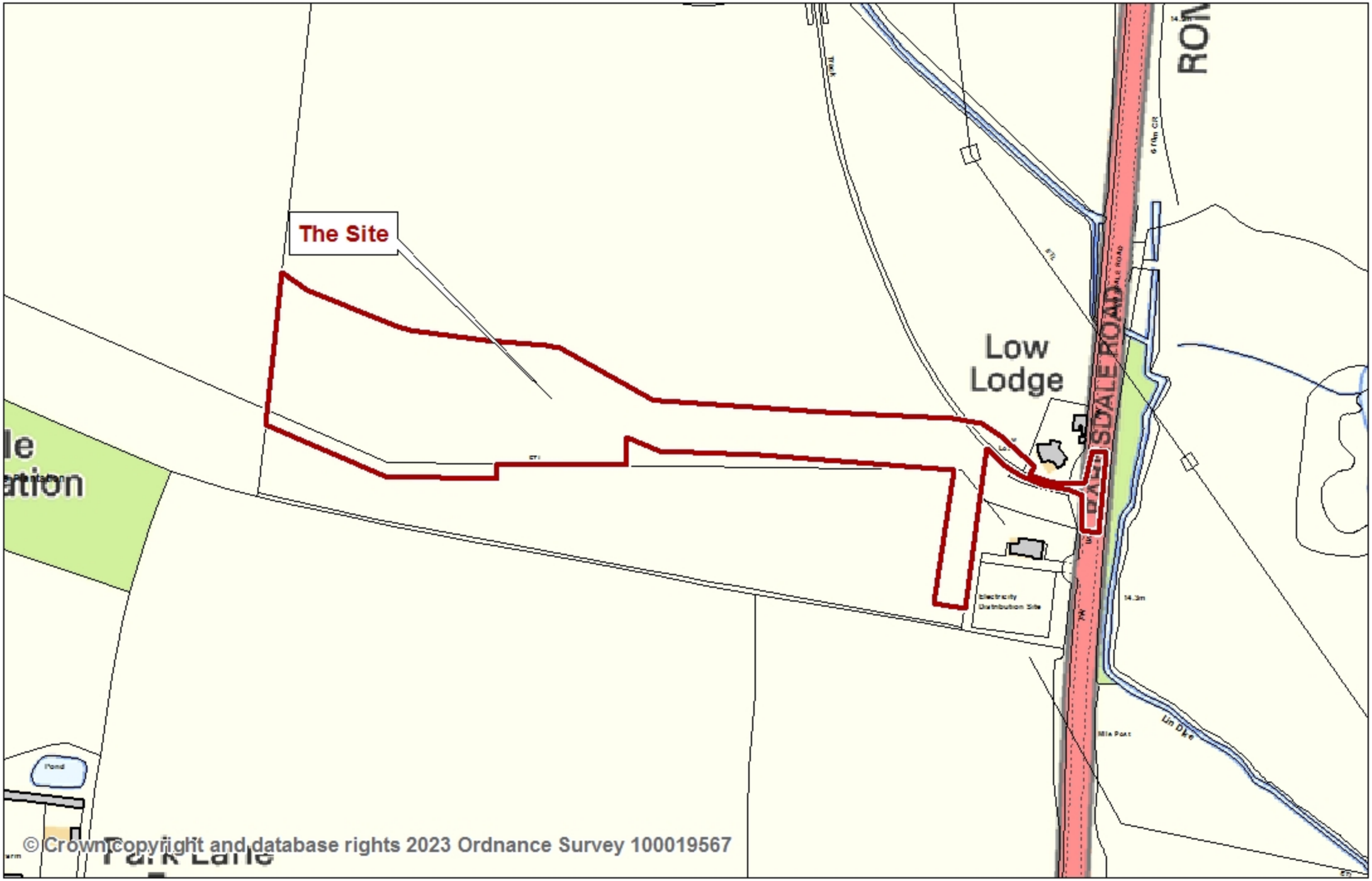


NORTH AND EAST PLANS PANEL

PRODUCED BY CITY DEVELOPMENT, GIS MAPPING & DATA TEAM, LEEDS CITY COUNCIL

SCALE : 1/2500



PLANS PANEL PRESENTATION

SCALE 1:2500

Leeds CITY COUNCIL