

Planning, Design and Access Statement for Construction and Operation of a Battery Energy Storage Facility.

Land East of Perimeter Road, Kirkby, Knowsley, L33 7UF.

On behalf of Balance Power Projects Ltd.

Date: July 2025 | Pegasus Ref: P23-1730

Author: Dafydd Gwilym



Document Management.

Version	Date	Author	Checked/ Approved by:	Reason for revision
V1	May 2025	DG	JC	-
V2	July 2025	DG		Internal Comments



Contents.

1. Introduction.....	1
Purposes of this Report	1
Planning Application Documentation	2
Regulatory Considerations	3
2. Need for Development.....	4
Background	4
Guidance and Policy Context.....	5
Clean Energy Action Plan 2030	6
National Infrastructure Commission – Progress Review (2024).....	6
UK Battery Strategy (2023)	6
Powering Up Britain, HM Government (2023).....	7
British Energy Security Strategy, BEIS (April 2022)	7
The Energy White Paper.....	9
Labour Manifesto (2024).....	11
Letter from Ed Miliband following his appointment as the Secretary of State for Energy Security and Net Zero (8 July 2024).....	11
Industrial Decarbonisation Strategy, BEIS (March 2021)	11
Smart Systems and Flexibility Plan – Transitioning to a Net Zero Energy System, BEIS (July 2021)	12
National Grid Future Energy Scenario Report (FES), National Grid (July 2023).....	12
Other Relevant Guidance and Policy Context	13
Energy Generation and Energy Storage in the UK.....	14
3. The Site and Surrounding Area.....	16
Residential Receptors	17
Green Belt	17
Public Rights of Way	17
Hydrology	18
Heritage Assets.....	20
Pre-Application Response.....	20
Planning History	21
Ground Conditions and Land Use History Context	22
4. Proposed Development and Design and Access Statement	25
Background	25
Design Approach	26
Design Evolution.....	26
Design Solution.....	27
Landscaping & Biodiversity	30
Acoustics.....	32
Surface Water Management.....	33
Waste and Recycling	33
Health and Safety	34
Decommissioning & Removal.....	35



5. Planning Policy Context	37
Development Plan	37
Unitary Development Plan (2006) Saved Policies.....	41
Relevant Material Considerations	42
National Planning Guidance	44
National Policy Statements.....	45
6. Planning Assessment.....	48
Need for Development	48
Sustainable Development	50
Principle of Development	51
Development in the Green Belt.....	53
Highway Considerations.....	64
Landscape Considerations	65
Ecology and Biodiversity.....	67
The Historic Environment	69
Arboriculture	69
Noise	69
Land Contamination and Landfill Gas Safety	69
Flood Risk and Drainage	70
Battery Safety	71
Decommissioning and Restoration	72
7. Conclusions	73

Appendices contents.

Appendix 1 – Site Location Plan	75
---------------------------------------	----

1. Introduction

- 1.1. This Planning Statement has been prepared by Pegasus Group on behalf of Balance Power Projects Ltd ("the Applicant"). Planning permission is sought for the installation of battery-based electricity storage system on land east of Perimeter Road, Kirkby, Knowsley, L33 7UF.
- 1.2. Centred at grid reference E: 344354 N: 398348 the site is inset within a single broadly rectangular agricultural field. The Application site measures approximately 3.06 ha and extends directly east from Perimeter Road, which bounds the Capitol Trading Estate and forms the eastern edge of Kirkby.
- 1.3. The site is located within the jurisdiction of Knowsley Council, whose boundary terminates at Blindfoot Road, approximately 1.5km to the east at its closest point, where it meets the administrative area of St Helens Borough Council. The site is identified to fall within the 'Open Countryside' for development management purposes and also falls within the Green Belt.
- 1.4. The Environment Agency reports that the land to the north of the Application site was operated as a landfill between 1965 and 1975, which included the filling of household and industrial wastes. Further Knowsley Building Control reports that 185,000m³ of topsoil, subsoil and builders waste was deposited on the land to the north of the Application Site and adjoining PROW (not on the Application Site) as an unauthorised operation circa 1989–1992. This material was never removed from the site, however this does not form part of the Application Site and therefore is not a matter of consideration in the application.
- 1.5. This application seeks planning permission for the construction and operation of a Battery Energy Storage Facility together with associated infrastructure, access and landscaping on land east of Perimeter Road, Kirkby, Knowsley, L33 7UF.

Purposes of this Report

- 1.6. The purpose of this Planning, Design and Access Statement (PDAS) is to set out the planning case for the Proposed Development and assesses the proposals against the provisions of both local and national planning policy. The issues relevant to the assessment of the application proposal are set out in this PDAS. The subsequent sections of this Statement are divided into: –

Section 2: Need for Development and Role of Energy Storage

- 1.7. The section summarises the key legislative background and support for flexible energy storage schemes in the UK and the role and function of battery storage in promoting a net zero energy system. The revised National Planning Policy Framework (NPPF) confirms that planning policies and decisions must also reflect relevant international obligations and statutory requirements, and those documents are considered relevant to the determination of this application.

Section 3: The Site and Surrounding Area

- 1.8. This section contains a description of the application Site and its environs.

Section 4: Proposed Development and Design & Access Statement

- 1.9. Section four contains a description of the Proposed Development and provides a Design and Access Statement.

Section 5: Planning Policy Context

- 1.10. The planning policy context for the Site includes both national policy guidance and the statutory Development Plan which includes the Knowsley Local Plan Core Strategy which was adopted by resolution of the Council on 6 January 2016. An additional 39 policies were saved from The Knowsley Replacement Unitary Development Plan which was adopted in June 2006. Brief explanations of the key policies pertaining to the development proposal is contained within this section.

Section 6: Planning Assessment

- 1.11. This section outlines the planning matters that are considered to be important to the determination of the application. Considerations are addressed in turn and explained in the context of the relevant planning policy and the legislative background outlined in the previous section.

Section 7: Planning Balance and Conclusions

- 1.12. This provides consideration of the overall planning balance and the concluding comments in relation to the application proposal.

Planning Application Documentation

- 1.13. The application proposal is supported by the following documentation:
- Completed forms and Certificates
 - Covering Letter, Prepared by Pegasus Group
 - Planning, Design and Access Statement (this statement), prepared by Pegasus Group;
 - Planning Application Drawings, prepared by Balance Power Projects Ltd;
 - Arboricultural Impact Assessment, prepared by Urban Green;
 - Construction Traffic Management Plan, prepared by Pegasus Group;
 - Preliminary Ecological Assessment and Ecological Surveys, prepared by Urban Green;
 - Biodiversity Net Gain Statement and Calculator, prepared by Urban Green;
 - Landscape and Visual Appraisal, prepared by Urban Green;
 - Landscape Plans, prepared by Urban Green;
 - Photomontages, prepared by RAD;

- Noise Impact Assessment, prepared by InAcoustic;
- Outline Battery Fire Safety Management Plan, prepared by Fingleton White;
- Social Value Template, prepared by Real Worth on Fusion 21 proforma;
- Economic Report, prepared by Pegasus Group;
- Site Selection Report, prepared by Balance Power Projects Ltd;
- Decommissioning Report, prepared by Balance Power Projects Ltd;
- Geotechnical Investigations Report Phase 1 and 2, prepared by Ridge;
- Flood Risk Assessment and Drainage Strategy, prepared by Ridge; and
- Statement of Community Involvement, prepared by CalComms.

1.14. This document should be considered in conjunction with the planning application package, as listed above, in order to gain a complete understanding of the application proposal. The application documentation demonstrates the diligent approach adopted by the Applicant, and their experienced consultant team in delivering a well-considered proposal based on sound environmental and sustainable development considerations.

Regulatory Considerations

- 1.15. The Town and Country Planning (Environmental Impact Assessment) (England) Regulations 2017 set out in Schedule 1 those developments for which an Environmental Impact Assessment (EIA) is mandatory and, in Schedule 2, those where an EIA may be required. The application proposal does not fall within Schedule 1 developments.
- 1.16. There is no express threshold for battery storage developments to be considered as Schedule 2 development under the EIA Regulations. However, a development area threshold of 0.5 ha is applied to category 3 (a) industrial installations for the production of electricity. The Development exceeds the Schedule 2 area threshold of 0.5 hectares and, as such, whether the Development is EIA development or not depends on an assessment against the screening selection criteria, as set out in Schedule 3 of the EIA Regulations, which comprise:
- Characteristics of the development;
 - Location of the development; and
 - Characteristics of the potential impact.
- 1.17. An EIA Screening Request was submitted on 18 October 2023 (Ref. 23/02728/SO). The Council decided that an EIA was not required on 22 November 2023.

2. Need for Development

Background

- 2.1. The National Grid has a licenced obligation to control frequency within the limits specified in the 'Electricity Supply Regulations', i.e. $\pm 1\%$ of nominal system frequency (50.00Hz) save in abnormal or exceptional circumstances. National Grid must therefore ensure that sufficient generation and / or demand is held in automatic readiness to manage all credible circumstances that might result in frequency variations.
- 2.2. The District Network Operator (DNO) is responsible for the operation of the local distribution grid network. The DNO is licensed to distribute electricity provided by the National Grid and is responsible for bringing electricity from the national transmission network to the local area.
- 2.3. Knowsley Council will be aware of a rise in the number of planning applications for standby generation and battery storage facilities across the country. This is as a direct result of increasing reliance on renewable sources such as wind and solar coupled with the move to phase out coal, terminating in September 2024, and oil over the coming decades. In the large majority of cases, these facilities require a connection to the lower voltage distribution network, of which there are a significant number across the country.
- 2.4. A battery storage compound consists of batteries that can store energy and are able to release or absorb energy from the power network. Being able to absorb and release energy during periods of low demand, the Proposed Development will be used to contribute towards the frequency balancing services, where the power is being generated or absorbed statically or dynamically depending on the system frequency. When there is not enough power, during periods of high demand, batteries are discharged to balance under frequency preventing black and brown outs. To balance over frequency batteries are charged to prevent dangerous spikes across electricity infrastructure.
- 2.5. Battery storage systems will typically operate in two modes to address two areas of the electricity system by providing response services. The first mode is to provide frequency response where the battery will act quickly to respond to signals from the system operator to charge or discharge power to the grid in order to respond to imbalances in generation and load. The second mode is energy trading, where the battery will charge or discharge in response to price signals in the electricity market. This typically means that when there is an abundance of energy in the market from renewable generators (i.e. wind and solar) then the price will be low and when there is a shortage of power then the price will be high. Battery storage systems respond to this by charging up with abundant, cheaper renewable energy during the day when demand is lowest and then discharging it later in the day (usually during the late afternoon and early evening peak period) when demand is at its highest and thus the price higher. This enables more stable energy prices in the market, aiming to keep the cost of electricity cheaper for consumers. Battery storage positively compensates for the intermittency of renewable generation and contributes towards providing a secure, diverse and affordable energy supply mix.
- 2.6. The proposed battery storage facility will not only directly assist in balancing the supply and demand of energy and supporting the move towards a lower carbon future, it also is a key objective in current Government policy. In December 2020 the UK Government relaxed

planning legislation to remove the barrier for battery storage projects with capacity of 50MW or more from the National Significant Infrastructure Regime. This was done so “more clean energy can be stored and used all year round”. Furthermore, the UK Government recognised that “flexible technologies like batteries will form part of the UK’s smarter electricity grid, supporting the integration of more low-carbon power, heat and transport technologies, which it is estimated could save the UK energy system up to £40 billion by 2050”.

- 2.7. Development of the battery project therefore provides a valuable service to both the National Grid and Local Distribution Grid. Battery Storage facilities play a fundamental role in decentralising the grid system, enabling power to be generated and stored in localised areas where it is required. Increasing the amount of operational storage developments, reduces the over-dependence on centralised, fossil-fuel facilities, which in turn has a cumulative effect on reducing CO2 emissions and de-carbonising the grid. Decentralisation is imperative in increasing efficient energy generation, whereby there will be less reliance on centralised facilities to overproduce in operation to account for transmission loss over greater distances.
- 2.8. Importantly, battery storage schemes also allow more renewable energy production to be integrated into the system. The variable supply that is inherent in renewables creates peaks and troughs in electricity production. Battery storage facilities, such as the one subject to this application, smooth out any peaks and troughs in electricity supply, being able to respond at short notice to requests from National Grid to generate electricity, when renewable sources are not generating, or charge up when there is an oversupply on the grid.

Guidance and Policy Context

- 2.9. There is a plethora of Government legislation, guidance and policy which support the transition to a low carbon future and the continued roll out of renewables and low carbon energy and associated infrastructure. The UK is part of an international effort to combat climate change. The UK is a party to the United Nations Framework Convention on Climate Change (UNFCCC) and as such has signed up to international climate change obligations, such as the Kyoto Protocol and the Paris Agreement.
- 2.10. As part of its contributions to international efforts, the UK also has domestic legislation and policies in place to reduce greenhouse gas emissions. The Climate Change Act 2008 established long term statutory targets for the UK to achieve an 80% reduction in greenhouse gases by 2050 against a 1990 baseline.
- 2.11. To support a prosperous and rural economy, the diversification of agricultural and other land-based businesses is strongly supported by the Government. With the risk of shortfalls resulting from the loss of future subsidies, many farmers are looking to diversify to improve income and provide stability for the agricultural sector. Currently over 71% of farms now employ some form of diversification (according to the 2023/24 Farm Business Survey (FBS)) with diversification ventures ranging from simple building lets, farm shops and installing solar panels for the generation of green energy. The diversification of agricultural land to provide low carbon energy storage is a widely accepted form of agricultural diversification and is acknowledged to provide significant financial stability to existing farmsteads and rural businesses.

Clean Energy Action Plan 2030

- 2.12. The Clean Energy Action Plan was published in December 2024. The aim of the Plan is to define the Clean Power Target, where Great Britain will generate enough clean power to meet our total annual electricity demand, backed up by unabated gas supply to be used only when essential.
- 2.13. The Plan outlines that, based on NESO and DESNZ's battery storage growth scenarios for 2030, it is expected 23–27 GW of battery storage to be needed by 2030 to support clean power. It is acknowledged in the Plan that this is a "very significant level of increase" as the current capacity for battery storage is 4.5GW. The Plan outlines specific actions required to reach the target, which includes *"improving the time it takes for mature grid-scale batteries to obtain grid connections and planning decisions"*. These are considered the most significant actions in order to deliver the huge increase in grid-scale battery capacity.
- 2.14. A key theme throughout the Plan is the significant role that battery storage will play in decarbonising the grid, and reaching the Clean Energy goal of 2023.

National Infrastructure Commission – Progress Review (2024)

- 2.15. The National Infrastructure Commission's (NIC) Infrastructure Progress Review 2024, published in May 2024, provides impartial advice to the UK Government, supporting efforts to address climate change and achieve net zero carbon emissions by 2050. Under the "Energy and Net Zero" section, the NIC emphasises the need to accelerate renewable energy deployment, including supporting technologies like energy storage. Key priorities for the next five years include achieving at least 65% of electricity generation from renewables by 2030 and implementing robust policies to deliver 60 GW of short-duration flexibility by 2035. The proposed Battery Energy Storage System (BESS) aligns directly with these priorities, contributing to renewable energy integration and enhancing grid flexibility.

UK Battery Strategy (2023)

- 2.16. The Government has published the UK Battery Strategy (26th November 2023), The UK battery strategy brings together government activity to achieve a globally competitive battery supply chain by 2030, that supports economic prosperity and the net zero transition. The Government's vision is for the UK to continue to grow a thriving battery innovation ecosystem and become a world leader in sustainable design, manufacture, and use. The strategy was developed with the UK Battery Strategy Taskforce, drawing on the call for evidence and engagement with businesses and stakeholders. The UK Battery Strategy is based around a 'design-build-sustain' approach. Through this strategy, the UK will:
- design and develop the batteries of the future
 - strengthen the resilience of UK manufacturing supply chains
 - enable the development of a sustainable battery industry
- 2.17. This strategy forms part of the government's smarter regulation programme that began in May 2023. The programme started with the publication of smarter regulation to grow the economy. Smarter regulation is about improving regulation, ensuring it is clear and only used where necessary and proportionate.

Powering Up Britain, HM Government (2023)

- 2.18. The Government published 'Powering Up Britain' in 2023, which brings together our Energy Security Plan and Net Zero Growth Plan to set out how we will ensure the system is fit for the future, achieve net zero by 2050 and boost economic growth.

Energy Act (2023)

- 2.19. The Energy Act 2023 came into force in October 2023. It amends the Electricity Act 1989 to include reference to a person who generates electricity from stored energy and defines 'stored energy' as energy that was converted from electricity and is stored for the purpose of its future reconversion into electricity. More generally the Act seeks to assist in the transition to net zero and secure a resilient supply of energy in an affordable way for households and businesses.
- 2.20. The Government established a definition of electricity storage through the Energy Act 2023 and clarified that electricity storage, such as BESSs, is a distinct subset of generation within the Electricity Act.
- 2.21. The 'Energy Security Bill Factsheet: Defining Electricity Storage' (September 2023) identifies that: "Flexibility from technologies such as electricity storage could save up to £10 billion per year by 2050, by reducing the amount of generation and network needed to decarbonise and create 24,000 jobs."

Transmission Acceleration Action Plan (November 2023)

- 2.22. The Transmission Acceleration Action Plan was published in November 2023 and forms the government's response to the report from Electricity Networks Commissioner Nick Winser CBE 52 (published in August 2023). It responds to numerous recommendations across eight themes including strategic spatial planning and planning approval.
- 2.23. The introductory section to the plan identifies that: "*Great Britain's transmission network must undergo unprecedented expansion, as our economy electrifies to deliver energy security and Net Zero. With the increasing shift towards electrification of transport, heating and industrial processes, a significant amount of additional grid capacity is required. To deliver this expansion in time, we need to significantly reduce the current end-to-end build time for transmission infrastructure.*" In terms of planning approvals: "*The Commissioner recommended a suite of reforms to planning processes, alongside wider work currently underway by government, to increase efficiency and enable projects to progress faster.*" It is clear that there is a need for energy security and net zero.

British Energy Security Strategy, BEIS (April 2022)

- 2.24. The Government's published British Energy Security Strategy (7th April 2022) explicitly highlights the urgent need for the UK to rapidly develop not only a decarbonised energy system but one that is more self-sufficient. This strategy provides a direct response by the government to develop an energy system which is not so heavily reliant on imported oil and gas which has seen significant spikes in global cost and the overall cost of living following the impacts of the COVID-19 pandemic and Russia's invasion of Ukraine. In addition to the increased uptake of decentralised renewable energy, the Energy Security strategy demonstrates the parallel need for improved grid flexibility and energy storage capacity

and sets out that new appropriate policy will be developed to enable and encourage investment into sufficient, long duration electricity storage.

Net Zero Strategy: Build Back Greener (2021)

- 2.25. The UK Government published the Net Zero Strategy: Build Back Greener in October 2021. This strategy outlines policies and proposals to decarbonize all sectors of the economy, ensuring the country stays on track to meet its net-zero target and future carbon budgets.
- 2.26. In Chapter 3, “Reducing Emissions across the Economy,” under subsection 3i, “Power,” the strategy emphasises the importance of achieving a fully decarbonised power system by 2035. Key commitments include implementing actions from the Smart Systems and Flexibility Plan and the Energy Digitalisation Strategy to maximize system flexibility (page 94).
- 2.27. The strategy also focuses on removing barriers to smart technologies, such as battery storage, as highlighted in case studies. It aims to enable smart homes and businesses, improve access to energy markets for innovative technologies and business models, support clean growth, reduce system costs, and keep energy bills low for consumers.

Committee on Climate Change

- 2.28. In May 2019, the Committee on Climate Change published its Net Zero report which responded to a request from the Governments of the UK, Wales and Scotland, asking the Committee to reassess the UK’s long-term emissions targets.
- 2.29. The paper identifies how: –
- Current policy is insufficient for even the existing targets and a net zero target would not be credible unless policy is ramped up significantly.
 - Delivery must progress with far greater urgency.
 - The supply of low-carbon power must continue to expand rapidly, and increasingly, from around 2030, some conventional power plants may need to run for only part of the year. While many options to longer need subsidies, Government intervention may still be needed, for example by backing long-term contracts aligned to expected wholesale prices. Policy and regulatory frameworks should also encourage flexibility (e.g. demand response, storage and interconnection).
 - Consistently strong development of low-carbon generation will be needed in order to quadruple low-carbon supply by 2050.
- 2.30. In June 2023 the Climate Change Committee published its 2023 Progress Report to Parliament. Within this covering letter to the Prime Minister, the Report states that, *“last year, despite some progress, the previous Government signalled a slowing of pace and reversed or delayed key policies. The new Government will have to act fast to hit the country’s commitments.”* The Progress Report identifies the following key messages:
- A third of the emissions reductions required to achieve the 2030 target are currently covered by credible plans. Action is needed across all sectors of the economy, with low-carbon technologies becoming the norm.

- From now on, emissions reductions will need to be driven by sustained decarbonisation action including the rapid roll-out of key low-carbon technologies, tree planting and peatland restoration.
- The new UK Government needs to set out a clear commitment to the Net Zero transition, backed with rapid policy action and a sharp-eyed focus on removing barriers to deployment. This will build confidence for investors, businesses and consumers and create the right conditions for markets to deliver. Policy must also address the urgent need for effective and integrated adaptation action and be designed to ensure the transition is delivered in a fair way.
- Renewable energy capacity has been growing steadily. However, roll-out rates will need to increase, compared to those since the start of this decade, to deliver the capacity needed by the end of the decade. Annual installations of offshore wind will need to more than treble, onshore wind more than double and solar increase by a factor of five.
- Removing planning barriers for heat pumps, electric vehicle charge points and onshore wind, so that these technologies can be rolled out at pace.

The Energy White Paper

- 2.31. The Energy White Paper (“EWP”) was presented to Parliament on 14 December 2020 and builds upon the then Prime Minister’s Ten Point plan for a Green Industrial Revolution (which is discussed below).
- 2.32. The EWP sets out ambitious plans offering support for a variety of technologies and committing funds to support the growth of low-carbon green-technologies. It is intended to entirely reshape British industry and the economy. At the core of the EWP is the commitment to achieve Net Zero and tackle climate change.
- 2.33. In the introduction to the EWP (pages 2 and 3), the former Secretary of State for Business, Energy and Industrial Strategy (BEIS), Alok Sharma MP, states (inter alia):

“The government presents this white paper at a time of unprecedented peacetime challenge to our country. Coronavirus has taken a heavy toll on our society and on our economy. But we will overcome COVID-19 and rebuild our economy, building back better and levelling up the country. As we do so, we must address the intergenerational challenge of climate change. Unchecked, the impact of rising global temperatures represents an existential threat to the planet. So, building back better means building back greener.

This white paper puts net zero and our effort to fight climate change at its core, following the Prime Minister’s Ten Point Plan for a Green Industrial Revolution. The Ten Point Plan sets out how government investment will leverage billions of pounds more of private investment and support up to 250,000 jobs by 2030.

The way we produce and use energy is therefore at the heart of this. Our success will rest on a decisive shift away from fossil fuels to using clean energy for heat and industrial processes, as much as for electricity generation. These are more than academic considerations; the shift to net zero will affect us all. This white paper presents a vision of how we make the transition to clean energy by 2050 and what this will mean for us as

consumers of energy in our homes and places of work, or for how businesses use energy to produce goods and services.”.

- 2.34. The EWP seeks to put in place a strategy for the wider energy system that transforms energy and supports a green recovery (page 4).
- 2.35. Page 5 of the EWP sets out the Government’s ‘Compelling case for tackling climate change’. The salient points presented by Government are (inter alia):
- We need to act urgently. The future impacts of climate change depend upon how much we can hold down the rising global temperature. To minimise the risk of dangerous climate change, the landmark Paris Agreement of 2015 aims to halt global warming at well below 2°C, while pursuing efforts to limit it to 1.5°C, increasing measures to adapt to climate change, and aligning financial systems to these goals.
 - At the global scale, however, we are not presently on track to reach the temperature goal of the Paris Agreement. Based on current national pledges, and assuming the level of ambition does not change, the world is heading for around 3°C of warming by the end of the century.
 - The cost of inaction is too high. We can expect to see severe impacts under 3°C of warming. Globally, the chances of there being a major heatwave in any given year would increase to about 79 per cent, compared to a five per cent chance now. Many regions of the world would see what is now considered a 1-in-100-year drought happening every two to five years.
 - To meet the temperature goal of the Paris Agreement, the world must collectively and rapidly reduce global emissions to net zero over the next 30 years. Success will mean we are less exposed to flood and heat risks and preserve our national security, our prosperity, and our natural world which are threatened by the global disruption of climate change.
- 2.36. The Government recognises that decarbonising the energy system over the next thirty years means replacing, as far as it is possible to do so, fossil fuels with clean energy technology such as renewables (EWP Introduction, page 9). The EWP identifies how clean energy will become the predominant form of energy, entailing a potential doubling of electricity demand and consequently a fourfold increase in low-carbon electricity generation (EWP Introduction, page 10). The Government recognises that growing and supporting green jobs across the country in green industries will also support a green recovery from COVID-19 (page 16).
- 2.37. The EWP, at page 43, identifies how the Government envisages that (inter alia) *“While we are not planning for any specific technology solution, we can discern some key characteristics of the future generation mix. A low-cost, net zero consistent system is likely to be composed of predominantly wind and solar. But ensuring the system is also reliable, means intermittent renewables need to be complemented by technologies which provide power, or reduce demand, when the wind is not blowing, or the sun does not shine”*. Page 43 goes on to identify batteries as such a technology that can contribute towards the demand side response.
- 2.38. Clearly illustrated on page 43 of the EWP are the Government’s intentions for a low-cost, net zero consistent system stating that *“Today this includes nuclear, gas with carbon capture and storage and flexibility provided by batteries, demand side response,*

interconnectors (see 'Energy system' chapter) and short-term dispatchable generation providing peaking capacity, which can be flexed as required." This is further reinforced on page 44 with a long-term view of the system by 2050 stating that *"By 2050, we expect low-carbon options, such as clean hydrogen and long-duration storage, to satisfy the need for peaking capacity and ensure security of supply at low cost, likely eliminating the reliance on generation from unabated gas."*

2.39. The need for storage is further emphasised in more detail in page 72, where energy storage in batteries will provide *"the flexibility needed to match supply to demand at peak hours, or when renewables output is low"*, such flexibility will *"lower future costs for consumers"* and can *"be deployed quickly to meet spikes in demand"*.

2.40. Page 45 identifies how *"Onshore wind and solar will be key building blocks of the future generation mix, along with offshore wind"*. It goes on to state how the Government recognised that sustained growth in the capacity of these sectors is needed over the next decade to ensure that we are on a pathway that allows us to meet net zero emissions in all demand scenarios.

Labour Manifesto (2024)

2.41. The Labour Manifesto provides a clear ambition for the current Government to make Britain a clean energy superpower. The Manifesto acknowledges that the national grid is the single biggest obstacle to the deployment of cheap, clean power generation and the electrification of industry, and Labour will work with industry to upgrade our national transmission infrastructure and rewire Britain.

Letter from Ed Miliband following his appointment as the Secretary of State for Energy Security and Net Zero (8 July 2024)

2.42. The letter from the Secretary of State for Energy Security and Net Zero clearly outlines one of the key goals of the Labour Government – to make Britain a clean energy superpower with zero carbon electricity by 2030, and accelerating our journey to net zero. The SoS states that *"we will get started straight away"* and outlines one of the priorities as:

- *delivering our mission to boost energy independence and cutting bills through clean power by 2030*

Industrial Decarbonisation Strategy, BEIS (March 2021)

2.43. The Industrial decarbonisation strategy sets out how industry can decarbonise in line with net zero while remaining competitive and without pushing emissions abroad. The strategy recognises that reaching the net zero target will require extensive, systematic changes across all sectors, including industry and emphasises that the 2020s will be a crucial decade to lay the foundation to enable the switch away from fossil fuel combustion to low carbon alternatives, including electrification, hydrogen, and biomass.

2.44. The strategy describes that to deliver net zero a minimum of 20TWh of fossil fuel use will need to be replaced by low carbon alternatives in 2030.

2.45. The scale and pace of decarbonisation required to achieve this target is therefore urgent.

- 2.46. The modelling contained within the report indicates that electrification of industry could reduce emissions by between 5 MtCO₂e and 12.3 MtCO₂e per annum by 2050 and describes that as new technologies emerge and renewable electricity prices continue to drop, electrification will become a more attractive option for industry. The role of smart technologies, such as storage and demand side response, are emphasised in relation to facilitating this transition and the report highlights at page 31 that *"smart technologies, such as storage and demand-side response, can also provide flexibility to the electricity system, helping industrial consumers use energy when it is cheapest and cleanest"*.
- 2.47. The report makes clear that electricity networks will need to accommodate significant increased demand from the electrification of industrial processes and will therefore need to be fit for purpose to achieve this to achieve net zero. Increasing the flexibility of the electricity system will make a positive contribution towards achieving this objective.

Smart Systems and Flexibility Plan – Transitioning to a Net Zero Energy System, BEIS (July 2021)

- 2.48. The Smart Systems and Flexibility Plan sets out a vision, analysis and suite of policies to drive a net zero energy system and replaces the previously published 2017 plan.
- 2.49. The Ministerial Foreword to the Smart Systems and Flexibility Plan, 2021 makes clear that:
- "The government is committed to leading the way in the transformation of our energy system. A smarter, more flexible system will utilise technologies such as energy storage and flexible demand to integrate high volumes of low carbon power, heat and transport and reach a carbon neutral future. A smart and flexible energy system can deliver significant benefits for consumers, the system and the wider economy whilst lowering carbon emissions."*
- 2.50. The Executive Summary emphasises the need to deliver system flexibility quickly:
- "It will be very difficult to achieve the deep power sector decarbonisation needed to achieve the sixth Carbon Budget without significantly higher levels of system flexibility. The need for flexibility will rapidly increase as variable renewable power replaces fossil fuel sources, and we electrify heat and transport. The illustrative scenarios in our analysis indicate the scale of deployment that could be needed. Around 30GW of total low carbon flexible capacity in 2030, and 60GW in 2050, may be needed to maintain energy security and cost-effectively integrate high levels of renewable generation."*
- 2.51. The report highlights that this represents a significant increase in deployment needed relative to the 10GW of low carbon flexibility currently on the system and emphasises that failure to achieve the targets cited risks the need to have to build more fossil fuel generation instead to maintain energy security in the 2030s.
- 2.52. The report provides further breakdown and analysis of the various forms of technology which increase flexibility, including battery storage. Lithium-ion battery storage currently comprises approximately 1GW of the 4GW of electricity storage currently operation in Great Britain (the remaining 3GW provided by pumped hydro storage). Whilst the battery storage pipeline is highlighted as growing there is a need to significantly increase the deployment of battery storage to approximately 18GW by 2050.

National Grid Future Energy Scenario Report (FES), National Grid (July 2023)

- 2.53. The National Grid Future Energy Scenario (FES) report outlines how the energy system may need to transform to meet the target for net zero emissions by 2050. The FES illustrates four different, credible pathways for the future of energy between now and 2050: Falling Short; Customer Transformation; System Transformation; Leading the Way. Customer Transformation and System Transformation scenarios achieve net zero by 2050, with Leading the Way achieving it by 2047. The Falling Short Scenario doesn't get to Net Zero by 2050, diverging from carbon budgets around 2025, resulting in 179 Mt of residual annual emissions by 2050. The heat and road transport sectors are largely decarbonised by 2050 across all scenarios except Falling Short. However, even for the Net Zero scenarios, some sectors such as waste and aviation do not reach zero emissions by 2050, so the energy sector, particularly the power sector, must reach net negative emissions to balance this out.
- 2.54. The need for flexibility to balance supply and energy needs over different timescales is recognised as crucial to the operation of the whole energy system.
- 2.55. The National Grid report highlights the constant need for balancing electricity to keep system voltage and frequency stable and that the need for system flexibility will become increasingly important due to factors such as growth in renewable generation, increasing electrification of heat and transport, and changes in consumer behaviour. Electricity storage capacities will need to increase significantly to support the decarbonisation of the electricity system. Consequently, the need to deploy significant electricity storage forms a key component of each pathway. Within the Executive summary of the report, the 'Key Message 3' on 'Markets and Flexibility' states that under the consumer transformation *"47 GW of electricity storage is operating by 2050 in Consumer Transformation, with 18 GW connected at distribution level"* with the other scenarios demonstrating for even high operational storage, up to 79MW and this could require as much as 20-30GW of new battery storage in 2030 to help balance periods of high and low renewable energy output.
- 2.56. The report identifies that the whole energy system of the future will require strategic storage to balance inter-seasonal demand and supply and increase resilience against external security of supply risks. This will include large-scale geological hydrogen and electricity storage projects which must commence now to support an electricity system without unabated natural gas after 2035.
- 2.57. Across the 4 scenarios the need for energy storage capacity is forecast to range between 37 – 79 MW by 2050 which represents a significant increase relative to the 2.8GW of energy storage currently operational to achieve the National Grid's projected demand.

Other Relevant Guidance and Policy Context

- National Grid Future Scenario Report (2022)
- National Policy Statement for Energy (EN-1) (2011)
- Revised Draft National Policy Statements for Energy Infrastructure (2021-2023)
- Smart Systems and Flexibility Plan (2021)
- The Carbon Budget Order (2021)
- Industrial Decarbonisation Strategy (2021)

- Ten Point Plan for a Green Industrial Revolution (2020)
- The Sixth Carbon Budget: The UK path to Net Zero (2020)

Energy Generation and Energy Storage in the UK

2.58.

In order to meet the targets addressed above, the UK is currently undergoing a rapid transformation in the way in which energy is generated with large scale, centralised fossil fuel and older nuclear power station being phased out and smaller scale, decentralised. The Digest of United Kingdom Energy Statistics (DUKES) is the annual energy statistics publication produced by the Department for Business, Energy and Industrial Strategy (BEIS). It provides a detailed and comprehensive picture on the production and consumption of individual fuels and of energy as a whole. The digest is published annually, and the latest edition was published in July 2024. The salient points of the report are:

- Energy production dropped to a new record low. Oil production fell to a record low level and remains down by 21 per cent on pre-pandemic (2019) levels. Wind, solar and hydro output rose to a record high level.
- Net imports rose from 37% to 48.8%. Electricity imports also reached a record high and reduced the need for domestic generation, particularly gas generation.
- The bulk of the UK's energy imports, over 90 per cent, comprise oil and gas and Norway is the UK's primary supplier of energy imports. The largest share of oil imports arrives from the US, whilst Norway provides the largest share of gas imports.
- Consumption of coal for electricity generation fell 35 per cent to 1.5 million tonnes in 2023¹.
- Renewable generation in 2023 was similar to 2022, narrowly reaching a record 135.8 TWh, 0.3 per cent higher than 2022. Wind generation rose 2.2 per cent to a record 82.3 TWh and solar generation rose 4.1 per cent to a record 13.9 TWh. This was driven by increases in wind and solar generation capacity which offset slightly less favourable weather conditions. Bioenergy generation decreased 4.9 per cent to 34.1 TWh, as outages continued at key bioenergy sites.
- The share of generation coming from low carbon sources rose to a record 60.3 per cent in 2023, as stable renewable generation combined with lower overall generation. The lower total generation also helped the renewable generation share to a record 46.4 per cent, exceeding the share from fossil fuels (36.7 per cent) for the third time in four years.
- Renewable capacity increased by 5.2 per cent (2.8 GW). Although this is higher than during the slowdown in new capacity observed between 2019 and 2021, it is lower than 2022 and the years prior to 2019 (the average growth in capacity between 2012 and 2018 was 20 per cent). Half the new capacity installed in 2023 was accounted for by wind (0.8 GW offshore and 0.6 GW onshore) with the remainder being mostly

¹ <https://www.gov.uk/government/news/end-to-coal-power-brought-forward-to-october-2024>

accounted for by solar PV (1.3 GW) and a small addition for energy from waste (less than 0.1 GW)

- High energy and other prices and high average temperatures led to the lowest domestic consumption since 1990, with industrial and commercial consumption also down. Domestic consumption fell 3.0 per cent to 92.6 TWh while industrial consumption was down 0.9 per cent and commercial consumption was down 2.9 per cent.

2.59. Whilst renewable energy output is generally increasing across the UK, the overall demand for electricity is decreasing as a result of sustained high temperatures and high prices. The energy supply from renewable resources is intermittent and less predictable, and when combined with varying consumption patterns, can introduce significant imbalances to the grid. This is acknowledged by both the Government and the National Grid who identify that significant standby generation capacity is now essential to store energy when it is not needed and to regenerate it when it is. This is compounded by the fact that over the past year the Government has paid a total of approximately £1,000m to UK windfarms to switch off in order to manage the energy system, resulting in windfarms only generating approximately 50%² of the electricity they are capable of generating. Britain is a world leader in wind power with capacity increasing from 5.4GW in 2010 to 25.7GW in 2021, with wind turbines alone capable of providing enough energy to power 20 million homes. However, without any long-duration electricity storage capacity on the grid, the only way to manage the imbalance when generation outperforms demand and prevent damage to the grid, is to curtail wind power stations. It is acknowledged that this practice could be significantly reduced if more substantial energy storage, such as the Proposed Development, was available on the Grid to enable greater storage of renewable energy when generation peaks outperform demand.

2.60. It is acknowledged that energy storage acts as a facilitator for the increased uptake of renewable energy by providing system stability to replace existing carbon intensive fossil fuel plants which will in turn reduce greenhouse gas emissions and thus are an important factor in addressing both local and national Net-Zero targets.

² <https://octopus.energy/blog/stop-wasting-wind-power/>

3. The Site and Surrounding Area

- 3.1. The Site area is shown on the Location Plan included at **Appendix 1**.
- 3.2. Centred at grid reference E: 344354 N: 398348 the site is inset within a single broadly rectangular agricultural field. The site measures approximately 3.06 ha and extends directly east from Perimeter Road, which bounds the Capitol Trading Estate and forms the eastern edge of Kirkby. The site projects into the field via its access route such that it is surrounded by agricultural fields in all other regards, with a wooded boundary adjoining the site to the south that expands into a small wooded area to the east.
- 3.3. The site is located within the jurisdiction of Knowsley Council, whose boundary terminates at Blindfoot Road, approximately 1.5km to the east at its closest point, where it meets the administrative area of St Helens Borough Council. The site is identified to fall within the 'Open Countryside' for development management purposes and also falls within the Green Belt.
- 3.4. The Environment Agency reports that the land to the north of the Application site was operated as a landfill between 1965 and 1975, which included the filling of household and industrial wastes. Further Knowsley Building Control reports that 185,000m³ of topsoil, subsoil and builders waste was deposited on the land to the north of the Application Site and adjoining PROW (not on the Application Site) as an unauthorised operation circa 1989–1992. This material was never removed from the site, however this does not form part of the Application Site and therefore is not a matter of consideration in the application. The site generally comprises rough open grassland with densely vegetated field boundaries around the north, south and eastern perimeter. The western edge of the site which runs parallel to Perimeter Road is lightly vegetated.
- 3.5. The general elevation of farmland in the surrounding area is 45–50mAOD with a general fall towards the north-west. A topographic survey for the site has identified that site levels vary between 48–54mAOD.
- 3.6. The western extent of the site is crossed by two 132kV overhead powerlines (132kV and 275kV) which feed into the Kirkby Substation located 888m south of the proposed site. The pylons and overhead cable travels from north to south across the western extent of the site, parallel to the western site boundary. Two associated pylons are situated within the northwestern corner of the site and adjacent to the site's southern boundary respectively.
- 3.7. From a recent site visit, a number of mounds of concrete and brick rubble were recorded as well as numerous other grassed mounds and embankments noted to feature across the west of the site. The east of the site is generally noted to be much flatter. The near surface grassed soils across the majority of the site were noted to contain occasional plastics, glass, metals, fabrics, brick and concrete.
- 3.8. 2no. monitoring wells with locked upright covers are noted to feature in the centre of the site, one of which is located within the raised area.
- 3.9. To the south and east of the site lies a small, wooded area. The site borders retained agricultural land to the east and north and is bound predominantly by mature trees and some hedgerows. Perimeter Road forms the site's western boundary.

3.10. Access to the site is provided directly from Perimeter Road via a double vehicular access gate from which an existing access track extends eastwards through the site before terminating at the south eastern corner of the site. The immediate surroundings to the east, north and south are generally agricultural fields. To the west of the proposed site is a Trading Estate which is predominantly Class B1, B2 and B8 uses. The Trading Estate to the west of the proposed site and sprawling overhead power cables and pylons contribute towards a more urbanised character in this location. Other uses in the immediate surrounds of the site include:

- Storage yard approximately 317m to the north of the site.
- Several farmhouses and associated buildings located to the south and the east of the site.
- Kirkby Substation located 888m to the south of the site.

Residential Receptors

3.11. In terms of residential receptors, the nearest residential receptors to the site include a small cluster of residential properties at Sandy Brow c. 265m to the south of the site through the dense woodland. None of these properties are located within a defined settlement as classified by Kirkby Council. These properties include:

- Top House Farm, approximately 310m to the north
- New Cut Farm, circa 670m south-east
- Sandy Brow 265m south

3.12. The closest 'in-settlement' residential receptors, as defined by the Local Plan Policy Map, include a cluster of homes at Spinney Road located 781m to the southwest of the site. The residential cluster of Southdene in Kirkby is located 1.7km from the site. There are no defined residential areas within 750m from the site.

Green Belt

3.13. As noted above, the site is located within the Merseyside and Greater Manchester Green Belt.

Public Rights of Way

3.14. There are a number of adopted Public Rights of Way (PRoW) that extend throughout the local area between Molly's Lane to the south of the site, Boundary Lane to the north and Perimeter Road to the west. As identified in figure 2, PRoW KB/19/1 shares the proposed access gate to the site and travels along the northern boundary. Bridleway KB/18/3 adjoins the eastern boundary of the site and travels from north to south.

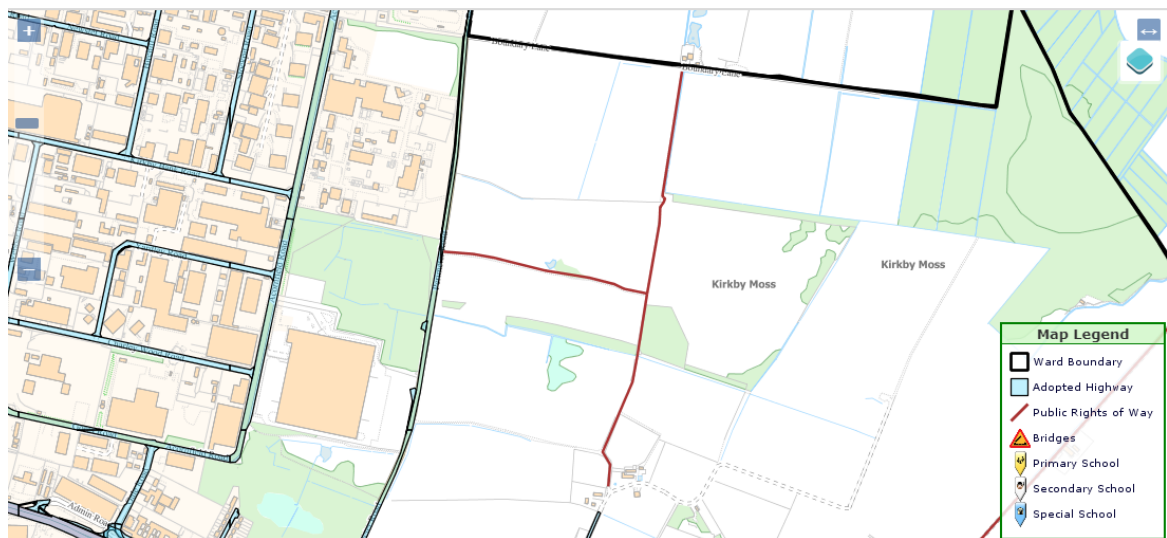


Figure 1 – Knowsley Council PRoW Interactive Map

Hydrology

- 3.15. According to the Environment Agency (EA) the Flood Risk Map for Planning the site is located in Flood Zone 1, at low risk of fluvial flooding, and any development is therefore appropriate in terms of flood risk. There are no Flood Zones 2/3 located in the vicinity of the proposed site. An extract of the Flood Risk Map is provided below in figure 2.
- 3.16. In terms of surface water flooding, the EA flood map shows the site is at very low risk of flooding in the low risk (1 in 1000-year event). An extract of the Surface Water flooding map is provided below in figure 3.

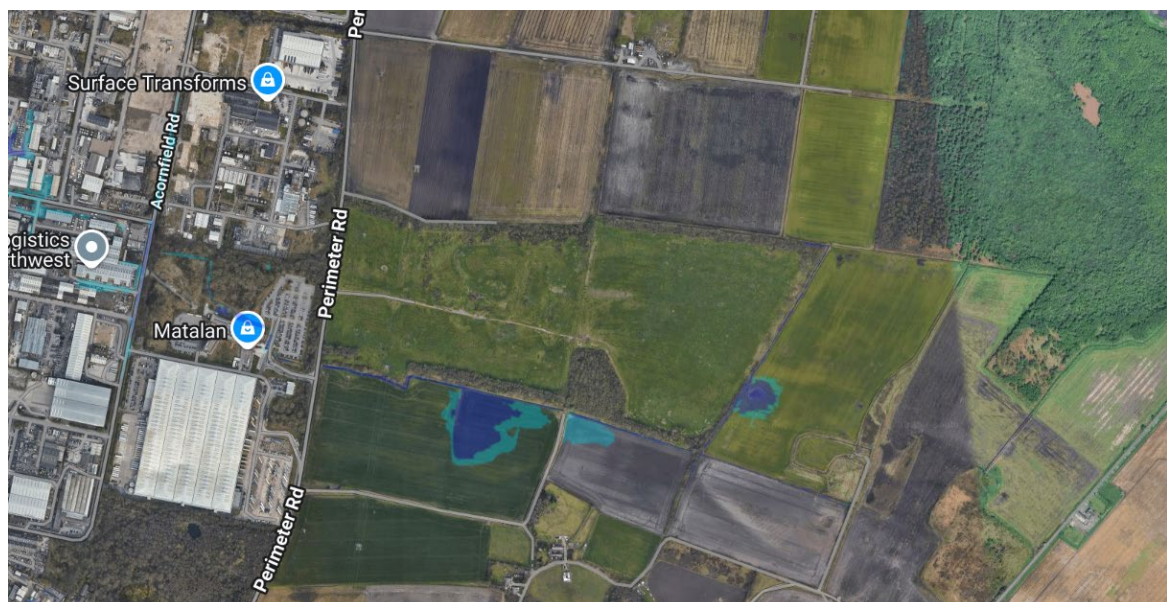


Figure 2 – Flood Risk Map



Figure 3 – Flood Risk from Surface Water

- 3.17. The planning application is supported by a detailed Flood Risk Assessment and Drainage Strategy which set out the proposed strategy for manage surface water runoff from the site.

Environmental Designations

- 3.18. There are no statutory environmental designations located onsite; however, the Acornfield Plantation Local Nature Reserve is located 350m to the southwest. A large commercial building and Perimeter Road separates the site from the Local Nature Reserve. The Site is not situated within an Area of Outstanding Natural Beauty, National Nature Reserve, National Park, Ramsar Site, a Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) or Special Protection Area (SPA).
- 3.19. Apart from the Local Nature reserve the nearest statutory environmental designation is Stanley Bank Meadow SSSI which is located 8.1km to the east of the site.
- 3.20. In addition to the above statutory designated sites, there are a number of locally designated environmental sites that lie in close proximity to the site, including:
- Knowsley Local Wildlife Site – Located 1.1km to the south of the site.
 - Mosslands, west of Johnson's Cottage, Kirkby Local Wildlife Site – Located 430m to the southwest of the site.
 - Moss Plantation and Brown Birches Local Wildlife Site – Located 91m to the northeast of the site.
 - Charley Wood Local Wildlife Site – Located the other side of Perimeter Road

Heritage Assets

- 3.21. The site is not located in any heritage conservation area, nor is it within proximity of any heritage conservation areas. There are no designated heritage assets within the site itself and the closest of these is located c. 1.5km to the northwest of the site and comprises of Grade II Listed buildings. There are no further listed buildings located within 1km of the site.
- 3.22. In terms of Scheduled Monuments, there is a historic recorded moated site, the Mossborough Hall moated site, which is located 1.5km to the east of the site.
- 3.23. Within 2km of the site is the Grade II listed Park and Garden of Knowsley Park. The site and the Grade II listed Park and Garden are separated by agricultural fields and the A580.

Pre-Application Response

- 3.24. The Applicant submitted a pre-application enquiry with Knowsley Council on 20 September 2023 (app ref. 23/00040/PREAPP) and received a response from the Council on 19 December 2023.
- 3.25. The response included a traffic light system to assess the potential risk arising from the key aspects of any future applications. No aspects were identified as red, or high risk.
- 3.26. In the principle of development section, the Case Officer states that the Site *"contributes very little in visual terms to the openness of the Green Belt. It has a semi - industrial appearance and is not a pristine undeveloped Green Belt site"*. It was also acknowledged that there would be "significant benefits" arising from the provision of renewable energy storage, and the Case Officer confirms that there is strong national policy support. It was considered that the following were considered to be demonstrated in any application:
- why the site the benefits can't be delivered elsewhere, this should include a comprehensive assessment of sustainable urban extension sites and along Perimeter Road which is less isolated.
 - If the proximity to the connection is important then evidence of this would need to be provided.
 - In terms of rural diversification, we would need to have information before we could attach weight to this.
 - We would need more details of the remediation and what works would be undertaken to make safe contaminated land.
- 3.27. The Case Officer also confirms that Very Special Circumstances could exist for the Site provided the following were implemented, along with the four points above:
- The site would be remediated at the end of its life and would no longer be contaminated.
 - Screening in the form of a hedge would be provided to the west, to reduce any visual impact.
 - Net gains in biodiversity (above the statutory legal requirement) were provided.

3.28. Any points raised in the pre-app have been considered as part of the full application.

Planning History

On-Site

3.29. There are six planning applications within the proposed site boundary.

- 74/11439/HIST – CLAY PIGEON SHOOTING – Decision nor date known.
- 74/11334/HIST – USE OF LAND FOR TIPPING AND LAND RECLAMATION FOR AGRICULTURAL PURPOSES – Refused 10 October 1989
- 74/11884/HIST – RESTORATION OF FORMER LANDFILL SITE FOR ANY AGRICULTURAL USE VIA TIPPING OF INERT WASTE – Refused 08 November 1990
- 13/00659/SO – COMBINED SCREENING AND SCOPING OPINION IN RELATION TO IMPORTATION OF SOILS AND MATERIALS AND GRADING ACROSS THE SITE TO RESTORE THE SITE TO GRASSLAND FOR USE IN AGRICULTURE AND MIXED WOODLAND PLANTING TO REMAINING AREAS – EIA required 09 December 2013
- 14/00849/FUL – RECLAMATION OF TIPPED CONTAMINATED AND DERELICT LAND THROUGH THE IMPORTATION OF SOILS AND SOIL FORMING MATERIALS; FORMATION OF NEW ACCESS; TEMPORARY CONSTRUCTION OF INTERNAL ROAD, SITE OFFICES AND STORAGE STRUCTURES; CAR PARK AND INFRASTRUCTURE COMPOUND WITH RESTORATION TO AGRICULTURE USE AND WOODLAND – Refused 29 May 2015
- 16/00342/FUL – RECLAMATION OF TIPPED CONTAMINATED AND DERELICT LAND THROUGH THE IMPORTATION OF SOILS AND SOIL FORMING MATERIALS; FORMATION OF NEW ACCESS; TEMPORARY CONSTRUCTION OF INTERNAL ROAD, SITE OFFICES AND STORAGE STRUCTURES; CAR PARK AND INFRASTRUCTURE COMPOUND WITH RESTORATION TO AGRICULTURE USE AND WOODLAND – Appeal Dismissed 08 September 2017

Off-Site

3.30. A search of planning applications on Knowsley Council's website has revealed the following applications of relevance within the area surrounding the site. There are several historic planning applications off-site.

- 93/00342/APP – PROPOSED USE OF LAND AS WASTE TREATMENT AND DISPOSAL SITE COMPRISING FACILITIES FOR THE SEPARATION AND RECOVERY OF WASTES, PRODUCTION OF METHANE, EXTRACTION OF CLAY, LANDFILLING AND LANDRAISING – Refused 11 October 1994 – Located 286m to the east of the site
- 95/00572/APP – PROPOSED USE OF LAND AS WASTE TREATMENT AND DISPOSAL SITE – Refused 16 December 1996 – Located 286m to the east of the site
- 08/00111/FUL – ERECTION OF DRUM STORAGE COMPOUND AND PRESS BUILDING, INSTALLATION OF PORTAKABIN, MIXING TANK, 2 NO. SILOS AND 2 NO. REACTORS, TOGETHER WITH CONSTRUCTION OF CAR PARKING AREA – Granted 15 August 2008 – Land located opposite side of Perimeter Road

- 11/00221/FUL – ERECTION OF 1,200M² WAREHOUSE AND STORAGE SILO FOR STORAGE AND RECYCLING OF HAZARDOUS AND NON-HAZARDOUS COMMERCIAL AND INDUSTRIAL WASTE TOGETHER WITH ERECTION OF SINGLE STOREY FACILITIES LABORATORY BUILDING AND ASSOCIATED CAR PARKING – Granted 11 April 2012 – Land located the other side of Perimeter Road

3.31. In addition to the above relevant planning history, the following relevant historic planning applications for similar developments within Knowsley Council were identified, including:

- 17/00680/FUL | CHANGE OF USE FROM STORAGE WAREHOUSE (USE CLASS B8) TO BATTERY ELECTRIC STORAGE AND REGENERATION PLANT (USE CLASS SUI GENERIS) & ANCILLARY WORKS | Vacant Building At The Junction Of Acornfield Road & Yardley Road Knowsley Industrial Park Kirkby Knowsley L33 7SX – Granted 08 March 2018
- 23/02008/FUL – PROPOSED DEVELOPMENT OF A BATTERY STORAGE FACILITY AND ASSOCIATED INFRASTRUCTURE – Land At Coopers Lane Knowsley Industrial Park Kirkby Knowsley L33 7TT – Granted 30 April 2024

Ground Conditions and Land Use History Context

- 3.32. The area of the site is known to have historically been utilised for peat extraction and remains depicted as potentially hosting peat within the England Peat Map as shown overleaf (darker blue indicating deeper Peaty Soil Depth) with depths of up to 100–150cm, but mostly between none and depths of c. 40–100cm. The Natural England ‘provisional’ Regional Land Classification map (at 1:250,000 scale) also identifies the site as within Grade 1 ‘Best and Most Versatile’ classification for agricultural land.
- 3.33. The site was however utilised for landfill during the 1960s and 1970s by Liverpool City Council and White Moss Peat Company Limited, as indicated in the above planning history. The tipped materials are stated as having included household waste, road sweepings, sludges and construction, demolition and excavated wastes.
- 3.34. As set out above, in circa 1989–1992 the land to the north of the Application Site hosted an unauthorised operation for the tipping of a reported 185,000m³ of construction, demolition and excavation waste. Following a number of unsuccessful applications for the tipping of waste material and soil on the site and reclamation for agricultural purposes, including an unsuccessful appeal, an Enforcement Notice was served in the early 1990s to secure the removal of the unauthorised tipped waste and reinstatement of the original site. However, because of the timescale involved, it transpired that the development was immune from enforcement action. This land is not the subject of this Application.

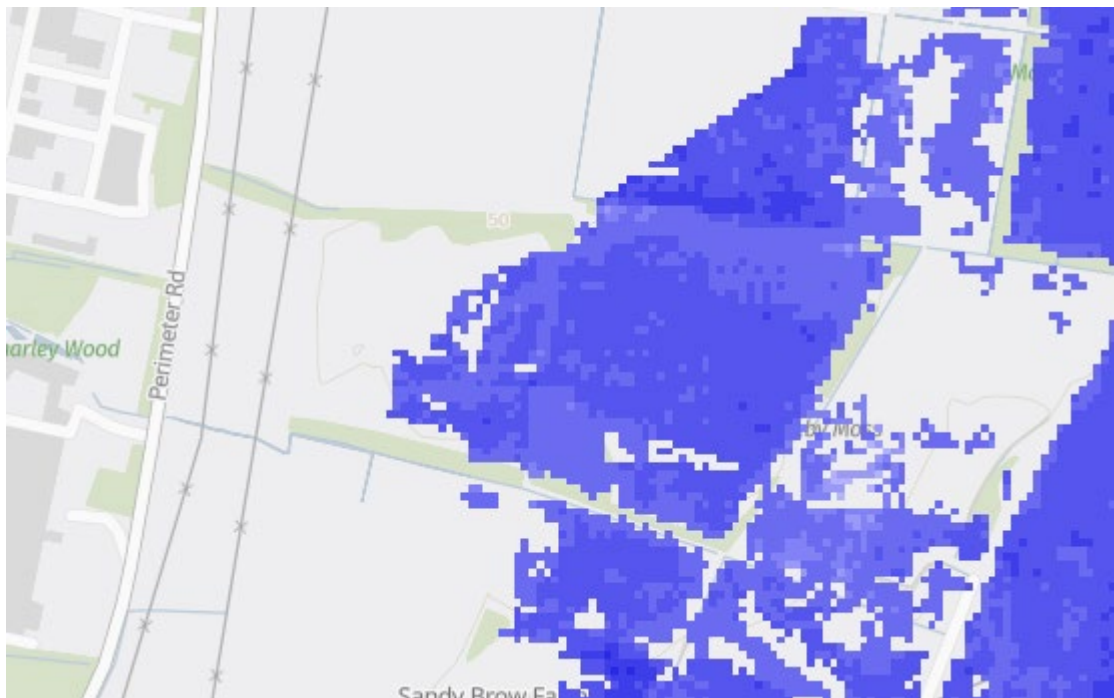


Figure 4 – Extract of England Peat Map

- 3.35. In the 2010s applications (as also set out above) were submitted for importation of materials including construction waste, and re-grading of the land in connection with its restoration, with the final landform to be landscaped to provide agricultural use and woodland. These were refused/dismissed at appeal due to constituting 'inappropriate development' within the Green Belt.
- 3.36. The application is accompanied by Phase 1 and Phase 2 Ground Investigation Reports. These indicate that the ground strata at the site can be summarised as follows:
- Construction, demolition and excavation waste (CDEW) – north-west portion of site only;
 - Topsoil/ capping layer;
 - Local authority waste;
 - Peat;
 - Glacial Clay; and
 - Chester Sandstone.
- 3.37. The Phase 2 Ground Investigation Report included 30no. dynamic probes and 11no. Dynamic Cone Penetrometer Tests (measuring density/weight bearing), 8no. windowless sample boreholes (determining strata, groundwater and gas monitoring) and 18no. trial pits (assessing ground conditions). Supplemental water sampling was taken from drainage ditches.

- 3.38. Based on this assessment peat is assessed as remaining below later fill, reflecting the above site history.
- 3.39. Similarly, the site's value for agriculture is heavily impinged by this context. It was agreed under the Pre-Application Enquiry that a Best and Most Versatile Classification Survey would not be necessary.
- 3.40. The Ground Investigation Reports also provides advice on ground contamination related risks and gas related risks arising from the historic site uses/ground conditions and this is addressed later in this Statement.

4. Proposed Development and Design and Access Statement

- 4.1. This section of the report sets out the description of development and provides a design and access statement.

Background

- 4.2. This proposal is for the construction and operation of a Battery Energy Storage System (BESS). The proposal would comprise a form of carbon zero energy storage to provide balancing energy to the National Grid. Its grid balancing mechanism specifically forms part of the renewable energy infrastructure being developed to meet the UK's obligations under the Renewable Energy Directive.
- 4.3. The proposal would provide greater capacity and flexibility in the energy generation network and the proposed batteries would support the move towards a low carbon energy network supplied increasingly by renewable energy developments. The proposal does constitute development required for the exploitation of renewable energy and will make an important contribution to ensure that Knowsley District Council can meet their own planning and climate objectives by minimising greenhouse gas emissions and supporting the use of renewable energy.
- 4.4. The proposed BESS will be laid out in a single compound, with all the battery units and associated infrastructure located in the compound. The area within the BESS where the battery units and inverter and transformer modules are situated will be on a concrete hardstanding surface. The access to the site is directly from the highway network, with an access track leading from Perimeter Road. The main access track leads through the field from the east, and then turns to the south, before turning to the west to enter the BESS compound.
- 4.5. Outside of the compound, a secondary emergency access track is located to the north of the compound.
- 4.6. The compound is enclosed with a security fence to the east, west and north. An acoustic barrier is located on the perimeter of the compound to the south. CCTV and lighting will be mounted on poles at various locations on the compound perimeter, with the CCTV and lighting pointing inwards.
- 4.7. Within the compound, the access track will enter in the west of the compound. The access track will continue through the compound. At the northwestern corner of the site is the 132kV substation area along with the transformer, private substation, control room and welfare, DNO room and storage room. The battery and inverter and transformer units are laid in rows to the south of the internal access track and to the east of the substation.
- 4.8. The battery storage compound consists of rows of modular battery units, that can store energy and are able to quickly release or absorb energy from the power network. Being able to absorb and release energy, the Proposed Development can be used to contribute towards the frequency balancing services, where the power is being generated or absorbed statically or dynamically depending on the system frequency. When there is not enough power, batteries are discharged to balance under frequency preventing black and brown

outs. To balance over frequency batteries are charged to prevent dangerous spikes across electricity infrastructure.

- 4.9. The total redline incorporates 3.06 hectares. The area of land utilised for the BESS development would be smaller than the overall Site area. Areas of new hardstanding would be limited to the area where the battery units and inverter and transformer modules are situated, as well as building foundations. All the remaining land within the two development compounds would be of a stone aggregate construction and therefore permeable.
- 4.10. The Proposed Development would export and store energy to and from the grid for a period of up to 40 years from the date of first becoming operational. After the 40-year generation period the development would be decommissioned, and the land restored back to present use and condition.

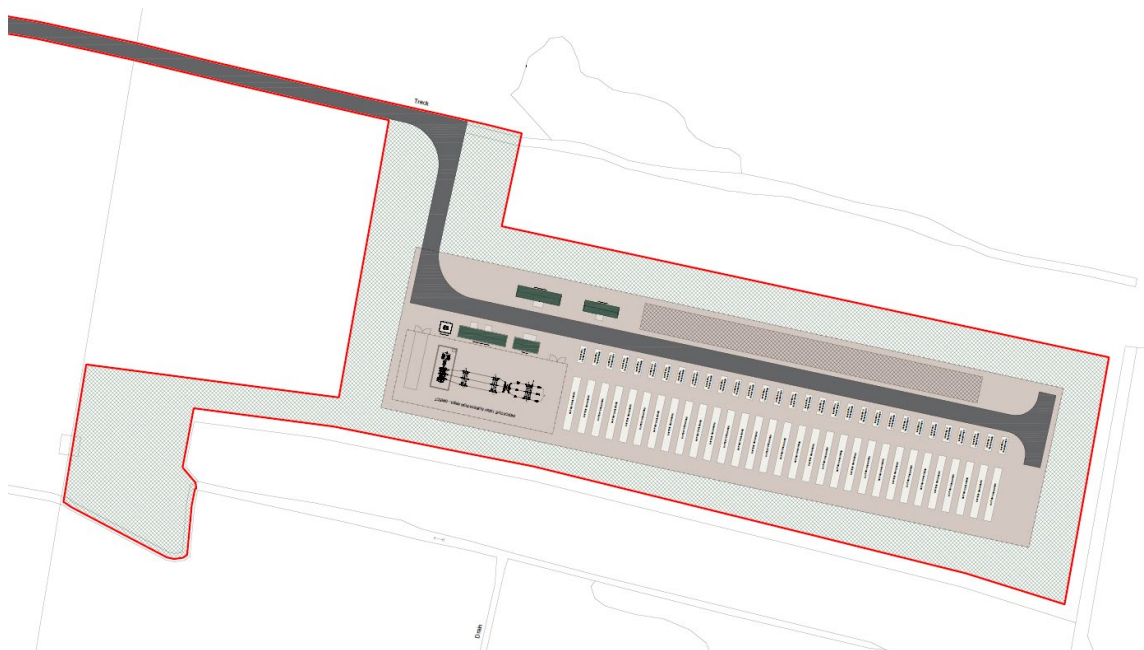
Design Approach

- 4.11. This section sets out the approach that the Applicant has taken through the design of the Proposed Development and how the design has evolved through the pre-application process.

Design Evolution

- 4.12. As stated in Section 1 of this report, careful consideration has been given to the engineering design solution of the development. This has resulted in development of the proposed layout over multiple iterations, with several refinements to the compound layout and overall positioning of the development within the wider landholding conducted during the design evolution.

Design Iteration 1 – Initial Layout

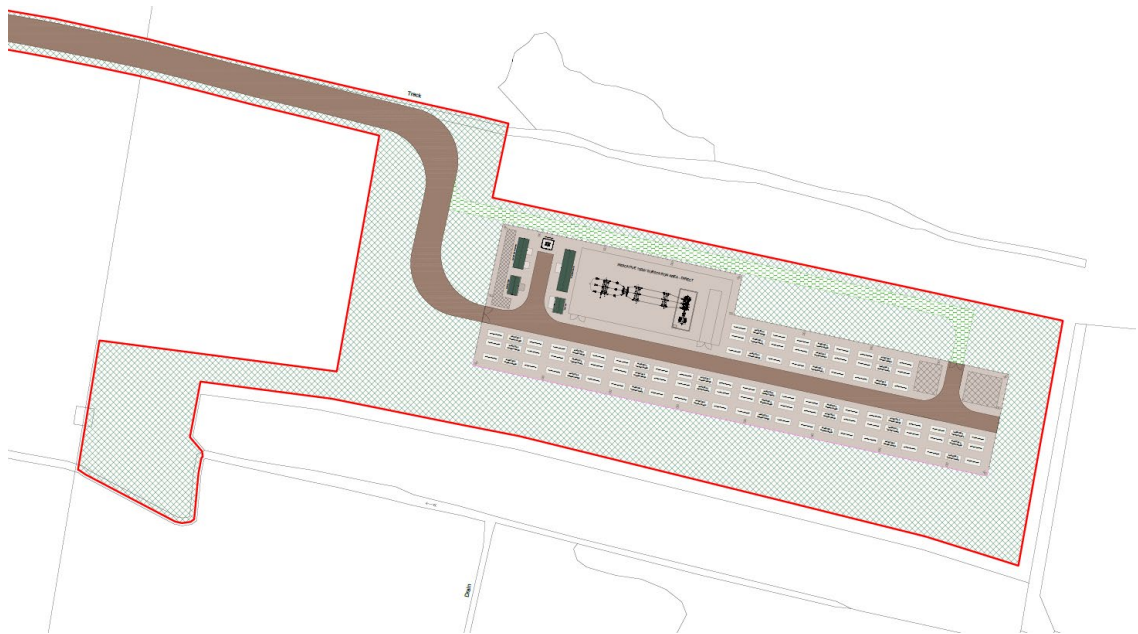


4.13.

Design Iteration 2

4.14. This iteration made several changes to the layout based on detailed assessment from the consultant team. This included:

- Repositioning of substation to account for improved ground conditions in the proposed location.
- Addition of an emergency access track for alternative access for emergency vehicles.
- Rearranging battery and inverters to optimise layout and utilise latest technology.
- Optimising development platform to minimise land take and provide land for drainage features.



4.15.

4.16.

Design Solution

4.17. The remainder of this section explains how the Proposed Development addresses the Site context and local characteristics in respect of its use; amount; layout; scale; location; materials; duration; landscaping; and access.

Use and Amount

4.18. Given the site's isolated location away from any major urban areas, the Proposed Development has been designed to be sympathetic to its surroundings (including a comprehensive landscaping and biodiversity scheme), whilst being practical in terms of technical and engineering considerations. It is therefore considered that, on balance, the proposed use is compatible with the surrounding area.

4.19. The Proposed Development includes the construction and operation of the following equipment:

- 66 No. modular battery units, arranged in 22 blocks of three;

- 33 No. transformer and inverter units, whilst smaller than the modular battery units these will be similar in appearance to the proposed battery containers.
- 1 No. auxiliary transformer;
- 1 No. 132kV Substation;
- 1 No. controller room & welfare unit;
- 1 No. District Network Operator Control Room;
- 1 No. Private Substation;
- 1 No. Storage Room
- Security and Acoustic Fencing;
- Pole Mounted CCTV cameras and downward facing lighting;
- Access track, vehicular parking within gated compound;
- Emergency access track;
- Extensive landscape planting comprising diverse grassland, tree, hedgerow and scrub.

Layout, Scale and Materials

4.20. The design principles for the layout of the proposed BESS are: –

- The proposed compound will be positioned within the western extent of the Site.
- Approximately 11no. blocks of modular battery 3no, containerised inverter and transformer unit serving each battery block (33no. total).
- There will be a gap of 3m between each battery block and proposed inverter and transformer unit.
- Typical minimum distance between the proposed modular battery units and the proposed acoustic fencing is 3m.
- Planting proposals are proposed for the site. Native hedgerows are proposed on the eastern and northern perimeter of the redline boundary. Native trees are proposed along the proposed native hedgerow to the north and the east, along with tree belts proposed to the east of the access track and battery compound and west of the batter compound. There are also areas proposed for native shrub planting, native marginal mix planting and wet wildflower meadow seeded mix.
- A new access road will be constructed.
- An emergency access track (grasscrete or similar) will serve as a perimeter road with access to the north of the compound.

4.21. The main components of the Proposed Development will include

- The proposed battery units have a height of approximately 2.5m, length of approximately 9.3m and a width of 1.7m. The proposed batteries will be sited atop 300mm concrete pads;
- The 33no. containerised MV Inverter Units which would be a similar size and appearance to a standard shipping container, measuring 2.4m wide x 6.1m long x 2.9m high. Similarly to the battery units, the Inverter units will be sited atop concrete pads.
- The 1 No. Auxiliary Transformers will be functional in appearance and will be sited within rectangular fenced compounds that will measure approximately 3.6m long by 4.1m wide.
- The proposed Control Room and Welfare, Private Substation, Storage Room and DNO Room buildings will comprise long, rectangular single storey buildings. The layout has been designed to show the buildings in a dark green colour, however the final finish can be confirmed by an appropriately worded planning condition. The buildings will be sited atop individual 300mm concrete pad foundations. The proposed buildings will be of varying sizes which are listed below:
 - Control Room and Welfare – 3.9m wide x 11.3m long x 3.6m high
 - Private Substation – 4m wide x 15.6m long x 4m high
 - Storage Room – 3.9m wide x 7.0m long x 3.6m high
 - DNO Room – 3.8m wide x 5.8m long x 3.4m high
- Access track and vehicle parking within each fenced and gated compound.
- The proposed BESS and private substation compound would be secured by a wire mesh paladin fencing to a height of 2.4m;
- The proposed compound will be enclosed by a timber acoustic fence with concrete pillars, to a height of 3.5m;
- Pole mounted CCTV cameras and downward facing lighting will be installed within the BESS compound at a height of 3.4m;
- Emergency access track as a grasscrete (or similar);
- Extensive landscape planting comprising hedgerow, tree grassland meadow and scrubland, and we wildflower meadow;

Point of Connection

- 4.22. The development will connect into the Kirkby 132kV Substation located c.900m to the south of the site via an underground cable that will follow the route of the local highway along Perimeter Road. The cable is not the subject to this Application.
- 4.23. One of the main reasonings behind having this BESS strategically located within the Knowsley area is due the very recently published CleanPower 2030 plan from the UK Government. This is down to the 4.2GW BESS requirement to help the government reach their Clean Power 2030 goals that has been indicated within the N. Wales, the Mersey and the Humber area that will bring cleaner power to the local community at a cheaper cost. The BESS in this region will work with the 9.5GW Solar PV and additional Onshore Wind capacity to stabilise both the local and transmission network through a host of services and electricity markets such as Frequency Response, Dynamic Containment and Balancing Mechanism.

Appearance

- 4.24. Within the BESS compound, none of the equipment will exceed a height of 4.5m (tallest element) and will be single storey, ensuring that they would not be visible from most viewpoints outside of the Site. This would be further improved when proposed screen planting matures, which, in addition to the existing screening surrounding the Site, would help assimilate the Site into the local landscape over time.
- 4.25. The battery compound would be surrounded by 2.4m high, painted wire mesh paladin security fencing. The security fencing will generally run in parallel to the footprint of the batteries, with the minimum distance between the units and the fence between 3m and 6m. In addition to fencing, it is proposed pole mounted CCTV security cameras would be positioned at intervals along the inside edge of the fencing (between the fence and the battery units) at a height of 3.4m.
- 4.26. The other elements of the development will mainly comprise electrical infrastructure which will be functional in appearance, reflecting their purposes, which is for the generation of electricity. This includes the proposed Substation and Control Room buildings. The applicants will welcome any condition in relation to layout or appearance of substations or control rooms.

Landscaping & Biodiversity

- 4.27. The proposed BESS is an example of a development which presents considerable opportunity for landscape and biodiversity mitigation and enhancement. The objectives for biodiversity are: –
- Remaining, undisturbed grassland within the land ownership could be re-wetted to create wet grasslands and to create small habitats where pooling naturally occurs, to the benefit of lapwing, curlew, grey partridge, and meadow pipits.
 - Bat and bird boxes could be placed on the new buildings/ retained trees. A plan to show the locations of these boxes and the specifications should be produced by a suitably qualified ecologist once the layout is finalised.

- An ecologically sensitive planting scheme could be incorporated on the site to promote invertebrate use of the site, which could benefit local bat and bird species.

- 4.28. The facility will be unmanned with visits made for maintenance purposes once every two weeks. Therefore, permanent lighting is not required. The only lighting will be timer controlled, and motion sensor activated security lighting on the proposed CCTV poles, situated around the perimeter of the Site. Any installed lighting will be downwards facing to limit any light emittance when lit. At other times, task lighting (low in luminance) will only be necessary when an engineer is in attendance. Notwithstanding this, the design and location of the compound is such that light spill out from the Site would be negligible.
- 4.29. The Site is proposed to be accessed for both the construction and operational phases of the development from the existing access off Perimeter Road. The access is currently used as a PRow and as the primary access to the field, so it is currently used for vehicular access. There is an established track through the field, but this is proposed to be upgraded to allow HGVs to access the site. The access will be provided with a four-metre-wide carriageway, with 11 metre radii on the southern side of the bell mouth and two metre radii on the northern side of the bell mouth. Construction vehicles will turn right in and left out of the site access only. All construction vehicles will enter and exit the site in a forward gear.
- 4.30. The first 20 metres of the access will be provided with a hard bound surface. A gate will be provided to secure the site to the rear of the hard bound surface, which would allow for the largest vehicle size anticipated to be associated with the construction phase to be accommodated off the Perimeter Road carriageway. The gate will be hung to open inward only.
- 4.31. The proposed access from Perimeter Road would be utilised for both temporary construction traffic and also adopted as the main access for vehicles once the development is operational. The proposed access point is deemed to have appropriate visibility splays to serve construction vehicles.
- 4.32. The arrival and departure of HGVs at the site will be strictly managed by the Site Manager. Drivers will adhere to a delivery schedule and will be required to call ahead to ensure that any emerging HGVs can be held within the construction compound. No HGVs will be permitted to wait on the public highway.
- 4.33. Temporary signage will be erected in the vicinity of the proposed access on Perimeter Road during the construction phase. Diagram 7301 'WORKS TRAFFIC ONLY' in the Traffic Signs Regulations and General Directions (TSRGD) will be used to indicate that heavy construction vehicles are turning. Signage will be white text and red background 1050 x 750mm mounted in 'A' frames.
- 4.34. Wet wheel washing facilities will be provided within the site before vehicles exit on to the unnamed access track and the wider highway network. At this stage it is anticipated to be in the form of a pressure washer designed to prevent mud and dirt entering the public highway.
- 4.35. The two PRows within the site are proposed to remain open during the construction phase with no requirement for temporary or permanent diversions as a result of the scheme. All management and mitigation measures set out within this report will be implemented prior to construction activities at the site commencing.

- 4.36. Mitigation and management procedures will be put in place where the PRowWs cross through the site. These measures will include:
- i. when construction plant and machinery are accessing the site, a banksman will be employed to control both pedestrian movements and HGV traffic. Banksmen will ensure that users of the PRow always have priority.
 - ii. where possible fencing will be placed along the PRow routes where they cross the site with gated sections in the vicinity of the internal access tracks. Vehicles will only be permitted to cross the PRow at designated crossing points; and
 - iii. signage will be erected at each end of the affected PRowWs in the vicinity of the site boundary advising users of ongoing construction activities at the site. Further signage will be positioned on the approach to both sides of each crossing point for both construction traffic and PRow users.
- 4.37. Once the development is operational, the PRowWs will not be obstructed by any fencing and the definitive widths and alignments will be retained.
- 4.38. The construction of the BESS will take approximately 9–12 months to complete. This includes the preparation of the site, internal access tracks erection of security fencing, assembly and erection of the substations and switchgears, installation of the inverters and batteries and grid connection. Core delivery hours are currently anticipated to be between the hours of 08:00 to 18:00 Monday to Friday and between 09:00 and 13:00 on Saturday. However, if considered necessary by the highway authority the core delivery hours can be confirmed with an appropriately worded planning condition.
- 4.39. Further details on the access and the construction traffic management proposals is set out within the supporting Construction Traffic Management Plan submitted in support of this application.

Acoustics

- 4.40. The Proposed Development will emit a noise whilst operational. The highest noise emitting equipment is associated with the battery units and inverter and transformer units across the Site. Noise emissions associated from the proposed battery units will typically occur when the air or liquid-cooled conditioning units that are used to control the temperature within the battery containers are in operation. This will tend to be in the summer when temperatures are warmer, and during the day when temperatures are warmer than during the night. Cooling may not be required when the batteries are charging.
- 4.41. This application is supported by a detailed noise assessment which assesses the noise impacts of the development on the nearest noise sensitive receptors. The Noise Impact considers a worst-case scenario, whereby all equipment is operated simultaneously. Although this is an unlikely occurrence as all of the units are independent of each other and usually operate as per demand and for a short period of time.
- 4.42. The assessment identifies that the Proposed Development will give rise to rating sound levels that are at least 5 dB below the measured background sound level in the area, thus giving rise to a 'Low Impact' and compliant with the Planning Condition proposed by the Environmental Health & Consumer Protection Team at Knowsley Council.

- 4.43. Internal noise levels within the nearest dwellings have also been assessed, concluding that the NR20 Noise Rating criterion will be comfortably achieved.
- 4.44. Consequently, the assessment demonstrates that the Proposed Development will give rise to noise impacts that would be within the range of NOAEL of the NPPG England guidance.
- 4.45. Since the Proposed Development conforms to British Standard and National Planning Policy requirements, it is recommended that noise should not be a considered constraint to the approval of this Planning Application, providing that the plant is constructed and operated in accordance with the acoustic assumptions and recommendations set out within this report.

Surface Water Management

- 4.46. The proposed surface water drainage strategy for the site comprises the following:
- 1 no. attenuation basin (with deeper area for permanent water to support biodiversity and ecology);
 - 2 no. swales connected to the attenuation basin;
 - Filter strips and filter drains with outfalls to the swales;
 - Ditch/ swale along southern side of access road. Check dams could potentially be integrated in the ditch/ swale to maximise surface water storage along the length of the ditch;
 - Pumping station and rising main on access road to connect back to main drainage network;
 - Below-ground cellular storage adjacent to the pumping station;
 - Impermeable liners e.g. butyl to be installed below the attenuation basin, filter strips, filter drains, swales, ditches and granular areas e.g. access tracks within the battery container compound to prevent any pollutants from entering the ground or contaminants entering the system;
 - 1 no. vortex flow control (downstream of attenuation basin);
 - Outfall ditch to connect the vortex flow control to existing watercourse.
- 4.47. The system shall discharge to the existing watercourse in the southwest corner of the site (which bounds the southern side of the site) at a maximum restricted rate of 2.5 l/s, which matches the 1-year greenfield runoff rate (calculated based on the proposed impermeable area).

Waste and Recycling

- 4.48. There are no by-products generated by the system. At the end of the lifespan of the development, the batteries can potentially be recycled or redeployed and reused elsewhere.

Health and Safety

- 4.49. The battery technology proposed is Lithium based which is the basis for all manufacturers. During the operation of the BESS each of the lithium-ion cells are constantly monitored to ensure optimal performance and temperature. The battery racks which contain the lithium-ion cells within the BESS will be designed and tested to conform with the requirements of UL9450(A) which is the strictest fire regulation in place today for BESS. The battery management system within the BESS can detect temperature rises also known as thermal runaway, which allows the cells to be remotely shut down to avoid cell failure. As a further layer of mitigating features the BESS and HVAC units will have an internal fire suppression system within each rack which is activated when the smoke and heat detectors within each rack are triggered. The Government, through its publication 'Proposals regarding the planning system for electrical storage' also acknowledge that battery storage has relatively low planning impacts when compared to other forms of generation and 'it therefore tends not to have significant local impacts that would make it difficult for local authorities to balance against national benefits'.
- 4.50. An Outline Battery Fire Safety Management Plan has been prepared to support the planning application. The document sets out the safety features that BESS schemes could incorporate alongside the steps taken to reduce any potential risk to life, property, and the environment.
- 4.51. During the determination of applications for other BESSs, the Applicant has noted that in some instances consultees are concerned with the potential risk of fire. Specifically, should a battery overheat and combust it may be subject to discharging flammable and toxic gasses. Media articles relating to batteries and personal hardware have raised public concerns and, in some cases, overexaggerated the issue. It must be recognised that lithium-based batteries are a proven technology used extensively in mobile phones, laptops and tablets across the planet. Furthermore, there has only been a single recorded incident of a fire at a UK BESS site, back in 2020.
- 4.52. In terms of legislation, all Lithium-Ion batteries must be transported in accordance with UN 38.3 to which the UK is a signatory. Safe transportation ensures no damage to the batteries prior to use. The BESS would be constructed in accordance with the International Electrotechnical Commissions standards for Electrical Energy Storage Systems. Details of these standards are listed below.
- Allianz Risk Consulting (ARC), Tech Talk Volume 26 (2019). Battery Energy Storage Systems (BESS) using Li-ion batteries.
 - Institute of Engineering and Technology – Code of Practice for Electrical Energy Storage Systems (August 2017).
 - The Energy Institute: Battery Storage Guidance Note 1 – Battery Storage Planning (August 2019).

– Safety requirements for grid-integrated EES systems — Electrochemical based systems. IEC 62933-5-2:2020 National Fire Protection Association (NFPA) 855, Standard for the Installation of Stationary Energy Storage Systems, 2020 edition5.

– UN ‘Recommendations on the Transport of Dangerous Goods’ – Section 38.3 covers Lithium-Ion Batteries.

- 4.53. There are numerous other schemes across the country which operate without incident, plus those either in construction or benefitting from planning permission, which clearly demonstrate that this matter can be suitably addressed through an automatic fire suppression system. Although there have been instances of fire at BESSs, occurrences are rare, and it should be noted that where fires have occurred, they have been safely extinguished.
- 4.54. It should be recognised that, compared to batteries found in devices such as mobile phones, the battery units used in battery storage systems are climate-controlled to maintain a safe operating range. All the battery units also have built-in alarms and fire suppression systems that can extinguish the fire automatically if needed. The infrastructure blocks are also set part so that there is no potential for fire to spread.
- 4.55. The proposed fire suppression system suggested to be installed in the Outline Battery Safety Management Plan is an inert gaseous system. Inert gaseous fire suppression systems work by depleting oxygen in the area and extracting heat from the fire. In the event of a fire, the fire suppression units automatically release argon or nitrogen, and propellant inert gases which effectively extinguish fires. This is likely to be the preferred method with zero ozone depletion and negligible global warming potential.
- 4.56. The exact suppression system to be used at the BESS would be established closer to the date of construction and will be dependent on appointed construction contractor preferences, specification of the batteries to be used and market availability at the point of construction. On this basis, officers, consultees and other local stakeholders should be reassured that the BESS will be safe for the entirety of its operation. Please also refer to the Outline Battery Fire Safety Management Plan for more detail.
- 4.57. The Phase 2 Site Investigation Report provides a Risk Assessment from contamination. The Report provides a Qualitative Gas Risk Assessment and a Geotechnical Risk Assessment.
- 4.58. The Qualitative Gas Risk Assessment state that a high methane and carbon dioxide is present within the ground beneath the Site and are consistent with a landfill site. Mitigations measures will be identified following a detailed quantitative assessment and suitable gas protection measures be designed and incorporated into the development to mitigate against any gas risks identified in the DQGRA.
- 4.59. The Geotechnical Risk Assessment has confirmed that the site is likely to be suitable for the proposed development. The landfill materials are likely to benefit from compaction using Rolling Dynamic Compaction (RDC), to minimise the extent of any excavation of waste materials. The proposed RDC method of compaction will also improve the bearing capacity of the made ground and accelerate primary settlement to within development time frames

Decommissioning & Removal

- 4.60. As stated above, the Proposed Development is for a temporary development with a modelled operational lifespan of 40 years.
- 4.61. Notwithstanding this, the Applicant commits to the appropriate decommissioning and removal of plant from the Site once the development is no longer needed and ceases to store and supply power to the grid. As with similar developments within the District, it is recommended that a suitably worded condition is attached to any planning permission to secure the decommissioning of the development and restoration of the Site prior the passing of 6-months ceasing to store or supply power to the grid. The applicant also accepts the imposition of a planning condition(s) to secure the submission of a detailed decommissioning strategy to detail the removal of the development and restoration of the Site after the lifetime of the development has come to an end. The decommissioning strategy will also detail the trigger point for the 'ceasing of operations' of the development and the required decommissioning of the Site.
- 4.62. The Applicant has prepared a separate Decommissioning Report to accompany the application, which details the process to decommission the site.

5. Planning Policy Context

- 5.1. This section of the Planning Design and Access Statement identifies the national and local planning policy and guidance pertinent to the Site and development proposal. The plan-led approach to development as enshrined by Section 38(6) of the Planning and Compulsory Purchase Act 2004, requires development proposals to accord with the adopted development plan unless material consideration indicate otherwise.
- 5.2. The planning application will be determined in accordance with Section 70(2) of the Town and Country Planning Act 1990 (as amended), which states that in dealing with applications, local planning authorities shall have regard to the provisions of the statutory development plan and other material considerations.
- 5.3. Importantly, the development plan must be understood as a whole. This approach to construing policy is endorsed in case law judgments; notably that of Sullivan J in Rochdale [R v Rochdale MBC ex parte Milne [2001] reported at 81 P&CR 365]. In this case, Sullivan J concluded that in assessing compliance with the development plan it is not necessary to comply with all policies; there will be some core or Site –specific policies that take precedence over others. In other words, there will be dominant policies which guide the development proposal.
- 5.4. Government’s Planning Practice Guidance on Determining Planning applications (last updated 24 June 2021) sets out what may be a material consideration. Paragraph 8 of the guidance states ***“A material planning consideration is one which is relevant to making the planning decision in question (e.g. whether to grant or refuse an application for planning permission). The scope of what can constitute a material consideration is very wide and so the courts often do not indicate what cannot be a material consideration. However, in general they have taken the view that planning is concerned with land use in the public interest, so that the protection of purely private interests such as the impact of a development on the value of a neighbouring property or loss of private rights to light could not be material considerations.”***

Development Plan

- 5.5. The components to the Development Plan pertinent to the application Site and development proposal is made up of:
 - Knowsley Local Plan Core Strategy, January 2016
 - Unitary Development Plan (2006) Saved Policies
 - Joint Waste Local Plan (2013)
- 5.6. While the adopted local plan is in need of updating, the latest published Local Development Scheme (March 2025) indicates that the Council are awaiting updating of the plan making system by Government expected later in 2025 before embarking on progressing a new local plan.
- 5.7. For clarity, there is no made Neighbourhood Plan or designated Neighbourhood Plan Area covering the application site.

Knowsley Local Plan Core Strategy January 2016

- 5.8. The Core Strategy sets out the long-term vision, objectives and planning policies to deliver the vision and secure a sustainable future. The Development Plan Policies Map locates the site adjoining a Primary Industrial Area, and within the Green Belt.
- 5.9. The Core Strategy part of the Local Plan will set the strategic framework for the growth and development of Knowsley up to 2028 and beyond. It sets out how and where new development and regeneration should take place and how the Council will promote, guide and manage the future development of the borough. The Core Strategy will also shape the investment plans of the Council and other public, voluntary and private sector organisations.
- 5.10. A summary of the key relevant policies within the adopted Core Strategy is provided below:
- 5.11. Policy SD1: Sustainable Development – Policy SD1 has been included to translate the ‘presumption in favour of sustainable development’, which lies at the heart of the NPPF, to the local level. The NPPF requires that a presumption in favour of sustainable development be central to both plan-making and decision-taking.
- 5.12. Policy CS1: Spatial Strategy for Knowsley – This policy is the central policy of the Knowsley Local Plan which provides the principles for Knowsley's spatial development, and highlighting development priorities and areas that are of strategic importance.
- 5.13. Policy CS2: Development Principles – This policy aims to support the overall strategy set out in Policy CS1. The development principles in Policy CS2 seek to deliver sustainable communities and create healthy environments in Knowsley, in line with national policy.
- 5.14. Policy CS5: Green Belt – Approximately half of the Knowsley Council's area is designated as a Green Belt. The aim of this policy is to protect the Green Belts from urban sprawl and to keep the land predominantly open. The policy includes a presumption that inappropriate development will not be permitted except in very special circumstances in which it can be demonstrated that the harm to the Green Belt would be clearly outweighed by other considerations.
- 5.15. Policy CS7: Transport Networks – The Local Plan aims to support a sustainable transport system and geographical pattern of development which will minimise the need to travel and will maximise the borough's economic growth.
- 5.16. Policy CS8: Green Infrastructure – New developments must be served by Green Infrastructure to meet the needs of the residents and the local environment. New developments are expected to; contribute to the creation of a high-quality residential environment; provide access to high quality open space for leisure and recreational purposes; seek to protect, maintain and where possible enhance biodiversity; and provide adequate mitigation.
- 5.17. Policy CS19: Design Quality and Accessibility in New Development – This policy has three main elements:
 - To enhance the local distinctiveness, identity and accessibility of places.

- To maintain a good standard of amenity for all existing and future occupants of land and buildings.
- To address the challenges of climate change and future changes in social, economic and environmental priorities.

5.18. Policy CS20: Managing the Borough's Historic Environment – This policy provides effective protection of Knowsley's historic buildings and conservation areas. The policy outlines that development proposals in Knowsley should preserve or enhance the Borough's historic and architectural assets.

5.19. Policy CS21: Greenspaces and Trees – The policy is split into five sections:

- Greenspace protection – The benefits of a proposal must clearly outweigh the loss of urban greenspace; development will be resisted where it would significantly harm any existing or potential special qualities.
- Local Greenspace Standards
- Accessible and Quality Greenspaces – The Council will support improvements to existing and new areas of greenspace to achieve; accessible, safe and secure locations for all members of the community to use; clean and well-maintained facilities, equipment and open spaces; and conservation of natural features, wildlife, fauna, landscapes, buildings and other structural features, as appropriate.
- Local Green Spaces
- Enhancement of Natural and Semi-Natural Greenspace and Tree Protection – The Council will encourage new developments to incorporate:
 - Retention of existing trees, woodland, vegetation and other habitat features which offer a positive contribution to the local environment in terms of visual amenity, recreation value or biodiversity/wildlife interest;
 - Appropriate planting of trees, other soft landscaping and installation of habitat features for the benefit of biodiversity; and
 - Adequate replacement provision where tree loss is unavoidable, comprising two additional trees for every tree lost and taking account of species and size.

5.20. Policy CS22: Sustainable and Low Carbon Development – Policy CS22 aims to achieve this by encouraging provision of appropriate renewable and low carbon energy infrastructure and increasing energy efficiency through sustainable construction techniques. The policy includes sustainable construction principles that all new development will be required to meet:

- New development will be required to meet high standards of sustainable design and construction and minimise carbon emissions. This should be achieved by:
 - Designing new buildings for flexible uses throughout their lifetime;

- Avoiding the creation of adverse local climate conditions by using natural systems to avoid internal overheating and excessive heat generation;
 - Ensuring developments are comfortable and safe for users;
 - Making the most effective and sustainable use of water, aggregates and other resources;
 - Limiting energy use by incorporating high standards of insulation, heat retention, natural ventilation and passive solar techniques;
 - Landscaping (including measures such as green walls or roofs) to create shelter and reduce any heat island effect;
 - Using sustainable materials from local suppliers where possible;
 - Supplying energy efficiently and incorporating decentralised energy systems, using renewable and low carbon energy where feasible;
 - Managing flood risk, including through the use of Sustainable Drainage Systems (SuDS) and flood resilient design for infrastructure and property; and
 - Promoting sustainable waste practices in new and existing developments.
- Priority Zones have been identified for renewable and low carbon infrastructure which are located in Knowsley Industrial Park and Knowsley Business Park.

5.21. Policy CS23: Renewable and Low Carbon Infrastructure – This policy encourages and accommodates renewable energy generation. However, some renewable energy installations may conflict with planning policies such as those aiming to protect the openness and use of the land in the Green Belt and the character and setting of urban neighbourhoods. Policy CS23 will balance these considerations and help Knowsley to contribute to national targets for renewable energy generation. The Council will support proposals that will produce and distribute decentralised, low carbon and renewable energy, provided that they do not cause significant harm (in terms of their number, scale, siting or cumulative impacts) to:

- Natural resources, biodiversity, geodiversity, water and air quality and, landscape character;
- Aviation and transport safety;
- Historical and cultural assets;
- Public amenity and living conditions; or
- Openness and amenity of the Green Belt, except in very special circumstances.

5.22. All proposals must be accompanied by information that shows how the local environment will be protected, and how the site will be restored once energy production ends to align with Policy CS23.

- 5.23. Policy CS24: Managing Flood Risk – This policy takes account of these risks and sets out requirements for managing surface water and promoting the use of Sustainable Drainage Systems (SuDS).

Unitary Development Plan (2006) Saved Policies

- 5.24. The Unitary Development Plan was adopted in June 2006, and 39 of the Plan's policies were saved. The saved policies forms part of the current adopted Local Plan.
- 5.25. Policy T7: New Development and Walking & Cycling Routes – The policy outlines that new developments are expected to retain all walking and cycling routes, which include PRoWs.
- 5.26. Policy T8: Transport Assessments – New developments that would prejudice the primary function of any part of the highway network (i.e. the motorway, trunk road, primary and local highway network) by generating a material increase in traffic, which would overload the access to, or any part of the network, will not be permitted, unless the necessary mitigation measures required are undertaken.
- 5.27. Policy DQ2: Security in the Built Environment – This policy aims to ensure that new development should be designed so as to provide good levels of personal and property security.
- 5.28. Policy DQ4: Trees and Development – This policy ensures that proposals for new development include appropriate planting of trees and other soft landscaping.
- 5.29. Policy ENV2: Noise and Vibration – This policy ensures that developments do not create an unacceptable level of noise and vibrations. Proposals that cause an unacceptable increase in noise or vibration levels or itself be subject to unacceptable noise or vibration from an existing source will not be permitted.
- 5.30. Policy ENV3: Light Pollution – this policy aims to ensure that external lighting does not cause an unacceptable impact on visual amenity of the surrounding area, will not harm wildlife, and there will be no loss of residential amenity.
- 5.31. Policy ENV4: Hazardous Substances – A fundamental aim of this policy is to prevent major accident hazards and limit the consequences of such hazards.
- 5.32. Policy ENV5: Contaminated Land – Previously developed sites may have been affected by past land use in such a way that may cause harm to human health or the environment. Such sites need to be brought back into beneficial use in line with the Government's policy on regeneration of brownfield sites.
- 5.33. Policy ENV5: Landfill Gas – The decomposition of material within landfill sites can cause the generation of landfill gas. This gas can migrate in any direction through permeable ground, structures such as drains or even dissolved in water. Gas can subsequently enter or affect adjacent land or buildings and pose an unacceptable risk to human health, property or ecosystems. Without control, the accumulation of gas may lead to explosions and fire risk, or to odours and the risk of asphyxiation or toxic effects. The latter may also affect ecosystems. Proposals that are located within 250m of a former landfill site must demonstrate that there are no risks arising from landfill gas.

Relevant Material Considerations

- 5.34. The relevant material considerations to the proposals include:
- The National Planning Policy Framework (NPPF) 6th Edition (December 2023);
 - Planning Practice Guidance Climate Change, 15 March 2019;
 - Planning Practice Guidance Effective use of Land, 22 July 2019;
 - Planning Practice Guidance Environmental Impact Assessment, 13 May 2020;
 - Planning Practice Guidance Land Affected by Contamination, 22 July 2019;
 - Planning Practice Guidance Land Stability, 22 July 2019;
 - Planning Practice Guidance Natural Environment, 14 Feb 2024;
 - Planning Practice Guidance Renewable and Low Carbon Energy, 14 August 2023;
- 5.35. The 7th edition of the NPPF was published in December 2024 (as amended) which is strengthened to support Net Zero objectives and focus on climate change. Overall, for the NPPF, the over-arching presumption in favour of sustainable development remains. Material for this application is how Government has placed a greater emphasis on the delivery of infrastructure, including energy and how this is integral towards fulfilling the economic arm of achieving sustainable development.
- 5.36. Amendments have been made to paragraph 168 of the NPPF which states that when determining applications for renewable and low carbon energy developments, local authorities should ***“give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal’s contribution to net zero future”***.
- 5.37. **Paragraph 2** states that planning law requires that applications for planning permission must be determined in accordance with the Local Plan, unless material considerations indicate otherwise.
- 5.38. **Paragraph 8** of the Framework identifies how the planning system has three overarching objectives towards achieving sustainable development which are interdependent and need to be pursued in mutually supportive ways so that opportunities can be taken to secure net gains across each of the different objectives. The three overarching objectives are listed as:
- a) an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*
- b) a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being; and*

c) a environmental objective – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

- 5.39. **Paragraph 9** advises how the overarching objectives should be delivered through the preparation and implementation of plans and the application of policies in the Framework.
- 5.40. **Paragraph 10** states “So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development”.
- 5.41. **Paragraph 85 confirms** the Government’s commitment to supporting sustainable economic growth and states (inter alia) “Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future.”
- 5.42. **Paragraph 88**, supporting a prosperous rural economy, is also pertinent as the Development Plan identifies the Site as being located in open countryside, it states how planning decisions should enable the sustainable growth of all types of businesses in the rural areas; and the development and diversification of agricultural and other land-based rural businesses.
- 5.43. **Paragraph 135** sets out that planning decisions should ensure that developments are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing appropriate innovation or change.
- 5.44. Section 13 of the NPPF relates to the Green Belt. **Paragraphs 142 to 160** set out the national policy for Green Belt Development. Paragraphs **153 to 160** are largely concerned with the making of decision on proposal for development in the Green Belt. **Paragraph 153** state: –
- “When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt, including harm to its openness⁵⁵. Inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. ‘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.”*
- 5.45. Section 14 of the NPPF relates to meeting the challenge of climate change, flooding and coastal change. **Paragraphs 161 – 164** of the NPPF sets out the planning policy perspective with regards to increasing the use and supply of renewable and low carbon energy. Through the paragraphs, Government requires the decision maker to:
- a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, and their future re-powering and life extension, while ensuring that adverse impacts are addressed appropriately (including cumulative landscape and visual impacts);*

b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and

c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.

- 5.46. Section 14 of the new NPPF states that the planning system should support the transition to Net Zero by 2050. This is a stronger statement than the previous “*support a transition to a low carbon future*” found in the 6th edition of the NPPF.
- 5.47. Section 15 of the NPPF relates to conservation and enhancement of the natural environment. **Paragraph 187** highlights that new development should be prevented from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability. It identifies how decisions should provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- 5.48. Footnote 65 states “***Where significant development of agricultural land is demonstrated to be necessary area of poorer quality land should be preferred to those of a higher quality.***”. Annex 2 of the framework provides a glossary of terms and defines “best and most versatile agricultural land” as land in grades 1, 2 and 3a of the Agricultural Land Classification.
- 5.49. Overall, the Framework confirms that the primary objective of development management is to foster the delivery of sustainable development, not to hinder or prevent it. Local Authorities should approach development management decisions positively – looking for solutions rather than problems so that applications can be approved wherever it is practical to do so.

National Planning Guidance

- 5.50. Government’s Planning Practice Guidance is a web-based resource that provides planning guidance on various planning policy and development management topics. The key topics relevant to this application proposal are:
- Climate Change, 15 March 2019;
 - Renewable and Low Carbon Energy;
 - Historic Environment;
 - Natural Environment;
 - Green Belt;
 - Public rights of way; and
 - Strategic Environmental Assessment and Sustainability Appraisal
- 5.51. Pertinent to the Proposed Development, the National Planning Practice Guidance (NPPG) supports the Framework, and it states that: “*increasing the amount of energy from*

renewable and low carbon technologies will help to make sure the UK has a secure supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses. Addressing climate change is one of the core land use planning principles which the NPPF expects to underpin both plan-making and decision-taking” (Paragraph: 001 Reference ID: 6-001- 20140306)

- 5.52. The Government’s (Planning Practice Guidance) Practical Guidance on Climate Change identifies how addressing climate change is one of the core land use planning principles which the National Planning Policy Framework expects to underpin in both plan-making and decision-taking. Paragraph 3 sets out examples of mitigating climate change by reducing emissions, these include (i) Providing renewable and low carbon energy technologies and (ii) providing opportunities for decentralised energy. The proposal would achieve both.
- 5.53. Paragraph 5 (PPG Reference ID: 6-005-20140306) of the guidance identifies how impacts of climate change needs to be taken into account in a realistic way. It goes on to state that local planning authorities should consider identifying no or low-cost responses to climate change that also deliver other benefits. In this instance the proposal is landowner and developer led; and as such there is no financial costs associated with the delivery of this response to climate change for the Local Planning Authority. Furthermore, the development proposal would deliver other climate change benefits such as biodiversity and hydrological enhancements.

National Policy Statements

- 5.54. The following NSPs are considered to be relevant to the development proposals:
- EN-1 Overarching NPS for Energy;
 - EN-3 Renewable Energy Infrastructure; and
 - EN-5 NPS for Electricity Networks Infrastructure.
- 5.55. Following the publication of the Energy White Paper in December 2020, the Government announced that they would review the existing National Policy Statements for Energy to both reflect the strategic approach set out within the Energy White Paper and ensure that we continue to have a planning policy framework which can support the infrastructure required for the transition to net zero. The Government have published and made the revised NPSs in January 2024.
- 5.56. Of particular relevance to the proposal, the revised energy NPSs EN-1 states at paragraphs 3.3.16 and 3.3.17 that:
- 3.3.16 New generating plants can deliver a low carbon and reliable system, but we need the increased flexibility provided by new storage and interconnectors (as well as demand side response, discussed above) to reduce costs in support of an affordable supply²⁴.*
- 3.3.17 Storage and interconnection can provide flexibility, meaning that less of the output of plant is wasted as it can either be stored or exported when there is excess production. They can also supply electricity when domestic demand is higher than generation, supporting security of supply.*

5.57. **Paragraphs 3.3.24 to 3.3.29** of the NPS EN-1 set out the role energy storage has to play in achieving net zero and providing flexibility to the energy system to ensure that high volumes of low carbon power, heat and transport can be integrated.

5.58. **Paragraph 3.3.25** specifically states that:

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

Knowsley Metropolitan Borough Council and Climate Change

5.59. Knowsley Metropolitan Borough Council declared a Climate Emergency on 29 January 2020. The Council prepared a Climate Change Emergency Plan, and a key theme of the document is to ensure sustainable energy generation.

Liverpool City Region and Climate Change

5.60. The Liverpool City Region became the first Combined Authority to declare a climate emergency in 2019. As part to the region's strategy, they have outlined a pathway document to achieve net zero by 2040.

5.61. As part of the work undertaken by the region, they conducted surveys and the region's attitudes towards climate change and net zero. The key findings were:

- 27% of those asked felt we should do everything possible to meet carbon net zero by 2040, however much it changed our lives.
- 67% of those asked felt we should follow the data to make the biggest changes in the fastest amount of time, over making the changes the public want.
- 87% of those asked, felt Climate Change was real.

5.62. There is therefore general support from the general population of the region to tackle climate change.

5.63. Following this the Liverpool City Region published 'Liverpool City Region Pathway to Net Zero' in 2022 which outlines the region's ambition to reach net zero. The key findings in the Report are:

- The region's natural assets and technological capability mean that we are uniquely positioned to become the UK's Renewable Energy Coast and one of the leaders of the Green Industrial Revolution.
- The Report acknowledges that to meet the 2040 net zero target, we will need to halve the amount of energy that we use and this " *will mean we can generate the*

remaining energy we need from clean, renewable energy sources that don't produce any carbon emissions at all".

- *"We need to end our reliance on non-renewable energy and transition instead to much cleaner sources like wind, solar, tidal and those can be naturally replenished."*
The proposed development will form a key part of the transition from non-renewable energy.
- The report outlines that the region should *"support, promote and lobby for investment in renewable energy generation and supply in our city region"*.

Supplementary Planning Documents

5.64. The following Supplementary Planning Documents providing further guidance on the application of the Development Plan and are considered relevant to the application:

- Design Quality in New Development Supplementary Planning Document (2016);
- Developer Contributions Supplementary Planning Document (2016);
- Trees and Development Supplementary Planning Document (2016); and
- Adding Social Value to Development: Employment and Skills Supplementary Planning Document (2018).

Knowsley and Sefton Green Belt Study 2012

5.65. This document informed the current adopted development plan and presents the last green belt assessment conducted within the authority. The application site falls within Parcel K004 within this assessment.

6. Planning Assessment

- 6.1. This section of the Statement contains a high-level appraisal of the Development against the development Plan and the relevant material planning considerations. These considerations have been derived from an understanding of the Site and its surrounds and the policy analysis of the previous section.
- 6.2. The Key issues which are considered pertinent for this assessment are: –
- Need for development;
 - Sustainable Development; and,
 - Principle of Development

Need for Development

- 6.3. The explicit need to introduce a step change in how the country deals with climate change was recognised by the Government who, on 1 May 2019, declared an environmental and climate change emergency following the finding of the Inter-governmental Panel on Climate Change that to avoid more than 1.5°C rise in global warming, global emissions would need to fall by around 45 per cent from 2010 levels by 2030, reaching net zero by around 2050. Through the declaration, the Government recognised a need to move swiftly to capture economic opportunities and green jobs in the low carbon economy while managing risks for workers and communities currently reliant on carbon intensive sectors. As part of its contributions to international efforts, the UK also has domestic legislation and policies in place to reduce greenhouse gas emissions as set out in Section 3 of this Statement above.
- 6.4. It is outlined by the Government within its National Policy Statement (NPS) for Energy (2011 and 2023) and Energy White Paper 2020 that there is an urgent need to create an efficient electricity market which is capable of adapting to the increased deployment of renewable energy generation. The balancing of supply and demand becomes more complex as the deployment of renewable generation increases as most renewables are, by their nature, intermittent and generate electricity only when 'the wind blows or the sun shines'. It is acknowledged that increasingly, flexibility will be required to come from new, cleaner sources, such as energy storage in batteries, as the dependency on renewable energy increases. Storing excess low-carbon generation over longer periods of time could enable us to decarbonise the energy system more deeply at lower costs.
- 6.5. Whilst renewable energy output is generally increasing across the UK, the overall demand for electricity is decreasing as a result of sustained high temperatures and high prices. The energy supply from renewable resources is intermittent and less predictable, and when combined with varying consumption patterns, can introduce significant imbalances to the grid. This is acknowledged by both the Government and the National Grid who identify that significant standby generation capacity is now essential to store energy when it is not needed and to regenerate it when it is. This is compounded by the fact that over the past year the Government has paid a total of approximately £1,000m to UK windfarms to switch off in order to manage the energy system, resulting in windfarms only generating

approximately 50%³ of the electricity they are capable of generating. Britain is a world leader in wind power with capacity increasing from 5.4GW in 2010 to 25.7GW in 2021, with wind turbines alone capable of providing enough energy to power 20 million homes. However, without any long-duration electricity storage capacity on the grid, the only way to manage the imbalance when generation outperforms demand and prevent damage to the grid, is to curtail wind power stations. It is acknowledged that this practice could be significantly reduced if more substantial energy storage, such as the Proposed Development, was available on the Grid to enable greater storage of renewable energy when generation peaks outperform demand.

- 6.6. Paragraph 3.3.25 of the Energy NPS reiterates this, stating '*Storage has a key role to play in achieving net zero and providing flexibility to the energy system, so that high volumes of low carbon power, heat and transport can be integrated*'. Paragraph 3.3.26 continues: '*Storage is needed to reduce the costs of the electricity system and increase reliability by storing surplus electricity in times of low demand to provide electricity when demand is higher. There is currently around 4GW of electricity storage operational in GB, around 3GW of which is pumped hydro storage and around 1GW is battery storage*'. Whilst there has been progress in the deployment of energy storage development since the Draft Revised NPS was originally published, we still fall significantly short of the level of flexible storage required to facilitate the UK's future energy strategy.
- 6.7. Energy storage and flexibility is therefore clearly a key part of the drive to ensure that the predicted increase in electricity use is sustainable sourced through 'clean' energy. Storage for the first time is included as key part of the mix of sources. It is clear that the development of battery schemes such as the one proposed is needed to support the wider, strategic objectives of the Government and the transition to sources of renewable energy.
- 6.8. Both the Government's Department for Business, Energy and Industrial Strategy (BEIS) and National Grid acknowledge the vital requirement for the rapid deployment of energy storage facilities such as the proposal in order to facilitate the UK's net zero target by 2050.
- 6.9. BEIS acknowledge (Smart Systems and Flexibility Plan – Transitioning to a Net Zero Energy System, BEIS, July 2021) that whilst the battery storage pipeline is highlighted as growing there is a vital need to significantly increase the deployment of battery storage to deliver substantial levels of grid flexibility to achieve the UK's net zero targets by 2050. The need for flexibility will rapidly increase as variable renewable power replaces fossil fuel sources, and we electrify heat and transport. It is acknowledged that it will be difficult to achieve the deep power sector decarbonisation required to achieve the sixth Carbon Budget without significantly higher levels of system flexibility. The need for grid flexibility will substantially increase as variable renewable power replaces fossil fuel sources, and we electrify heat and transport. The inconsistencies in renewable energy generation create volatility which in turn has the repercussion of hiking energy prices. By delivering more battery storage schemes, it in turn ensures security of energy supply, whilst keeping electricity prices low.
- 6.10. Subsequently, battery storage is inherently fundamental infrastructure for the UK energy mix. BEIS estimate that around 30GW of total low carbon flexible capacity in 2030, and 60GW in 2050, may be needed to maintain energy security and cost-effectively integrate

³ <https://octopus.energy/blog/stop-wasting-wind-power/>

high levels of renewable generation. To deliver this level of grid flexibility, it is acknowledged that there is a need to increase the deployment of battery storage facilities, such as the proposal, to approximately deliver 18GW of flexible storage by 2050.

- 6.11. This urgent need for the deployment of flexible energy storage is also shared by National Grid who acknowledge that across all scenarios to meet the UK's Net Zero targets by 2050, significant deployment of both renewable energy and flexible energy storage is required.
- 6.12. The Proposed Development would provide greater capacity and flexibility in the energy generation network and the proposed battery storage would support the move towards low carbon energy network supplied increasingly by renewable energy developments. The proposal does constitute development required for the exploitation of renewable energy and will make an important contribution to ensure that Knowsley Council can meet their planning objectives in minimising greenhouse gas emissions and supporting the use of renewable energy.
- 6.13. The National Grid, as the Systems Operator, is responsible for managing and making critical adjustments to the supply and demand of electricity at each moment of the day. Emergency energy generation will be produced by the Proposed Development as and when instructed by National Grid. This gives reassurance to the Local Planning Authority that the construction and operation of the development is vital and necessary to contribute to the capacity balancing service at the local level. In other words, the application proposal will respond to National Grid instruction to deliver electricity directly to where it is needed and help to secure continuous supply to the local DNO in times when the national grid is experiencing capacity shortage.
- 6.14. Whilst the Proposed Development is not a direct creation of renewable energy, the proposed battery storage facility comprises infrastructure that the government see as necessary to support the security and quality of electricity supply across both the National Grid transmission system and local Distribution Grids as the uptake of renewable energy increases. As set out in detail above, sufficient storage capacity is considered by the government to have a key role to play in meeting the UK's target of bringing all greenhouse gas emissions to net zero by 2050. In this context it is considered that the wider environmental benefits arising from the development are significant as part of the wider national strategy for decarbonising the energy sector and should be granted very significant weight.

Sustainable Development

- 6.15. Turning to sustainable development, paragraph 8 of the NPPF confirms there are three dimensions to sustainable development, these are economic, social and environmental gains. Paragraph 8 advises that in order to achieve sustainable development, economic, social and environmental gains should be pursued in mutually supportive ways through the planning system.
- 6.16. The economic objective is demonstrated by the BESS, which provides essential infrastructure to assist National Grid in managing the network through reactive power and balancing services. This infrastructure ensures a stable and secure energy supply, which is vital for economic growth. Therefore, it is considered that the BESS contributes to achieving the economic objective of sustainable development.

- 6.17. Other economic benefits from the Proposed Development include some employment and business opportunities for component suppliers / installers and those involved in grid connection, transport and logistics, and where possible, local contractors for maintenance roles, e.g landscapers. There may be potential opportunities for local businesses to be contracted for relevant parts of the scope of works over the period of construction (labour and materials such as hardcore etc), operation and maintenance. There will also be additional induced impacts during the construction period with any incoming construction workers (engineers, project managers etc) spending their wages at a local level (restaurants, retail stores etc) and using local accommodation. Social gain would be provided through the grid balancing functions of the development that will be connected directly to the local grid thus providing local energy security to the surrounding area. The proposal would also reduce reliance upon overseas energy sources as it would facilitate the increased uptake of further renewable energy generation and help limit the need for the further curtailing of offshore wind farms. The creation of a BESS will also lead to a decommissioning of fossil fuel energy generation facilities, thus less CO₂ emissions will be released, leading to greater overall health benefits. Whilst not a direct generator of renewable energy, the development acts as a facilitator to renewable energy generation, enabling greater grid flexibility and storage of increased variable renewable energy. The Proposed Development would therefore help to meet both the national and local need for energy and therefore the development would fulfil an important social role.
- 6.18. Turning to environmental gains, these would be secured through carbon reduction and local biodiversity enhancements. The Proposed Development would help support the transition to a low carbon future and facilitate the increased uptake of renewable energy onto the National Grid. The introduction of diverse grassland, scrubland and substantial tree and hedgerow planting around the Site would benefit a range of native wildlife for the lifetime of the development. The Site itself is of limited ecological value comprising agricultural land and would not result in any significant adverse environmental impacts. In fact, the landscape and ecological enhancement would also help to protect and enhance the natural environment. As demonstrated by the BNG Calculation there would be a +16.5 % for habitats and an increase of 3.84 habitat units from a baseline of zero for hedgerows net-gain improvement, and a 100+% increase in watercourse units. The proposal would therefore deliver on the environmental arm of sustainable development.
- 6.19. Reflecting on the above, the proposal duly delivers economic, social and environmental benefits and accords with the requirements of paragraph 8 of the Framework and is considered to constitute sustainable development.

Principle of Development

- 6.20. Previous appeal decisions (Please refer to refs: APP/C3430/W/22/3292837 & APP/N2739/W/22/3290256) have established that standby power generation, such as energy storage technologies, are a key ancillary development to renewable energy generation (locally and nationally) as it facilitates greater penetration of intermittent renewable energy generation onto the grid network. In the transition to a low carbon economy, both national and local governments acknowledge that the generation of low carbon and renewable energy will require increased provision of standby generation and fast reserve generation to ensure security of supply.
- 6.21. The need for the proposal is clearly outlined in the Government's energy strategy and national planning policy as set out in section 2 above. At the local level the provision of

appropriate infrastructure is identified as an essential part of the Development Plan; the proposal will contribute towards this requirement and support Knowsley Council's shifting energy mix by helping to facilitate an increased uptake of renewable energy. Battery storage contributes towards decarbonisation of the energy infrastructure and as such is supported by Policies CS22 and CS23 of the Core Strategy.

- 6.22. The Council provides support for the deployment of renewable and low carbon infrastructure through Core Policy 23, providing it can be demonstrated that proposals will not cause significant environmental harm or harm the openness and amenity of the Green Belt. The following parts of this section assess the proposal against the key environmental and green belt aims of Core Policy 23, demonstrating that the principle of development is supported.
- 6.23. Overall, the proposed development will deliver a sustainable form of development on an undesignated site which will provide significant benefits through enabling a greater uptake of renewable energy, decentralising and decarbonising the energy network, and providing grid balancing services which will enhance energy security on the local distribution network. Whilst the site is not considered to be 'previously developed' or 'brownfield' land, the reuse of a historical landfill site, is considered to represent a sustainable and effective use of land subject to it being demonstrated that all environmental and contamination risks can be appropriately mitigated. The proposed development is therefore considered to be acceptable in principle with regards to the requirements of the relevant Local Plan Policies and is supported by the provisions of Section 14 of the NPPF.

Green Belt

- 6.24. The Site is not located within a statutory landscape designation such as a National Park or National Landscape. The Site is however located within the open countryside and designated Green Belt. The Site is considered to be of local value in the hierarchy of landscape designations or of low status in terms of the requirement for landscape consideration as advised within Paragraph 180 of the NPPF.
- 6.25. The site is located within the North West Green Belt and therefore the main issue in establishing the principle of development in this location is whether the proposals would comprise inappropriate development within the Green Belt for the purposes of Core Strategy Policy CS5 and Section 13 of the NPPF. Secondly, should the proposal be deemed to comprise inappropriate development, it is necessary to establish whether the harm by reason of inappropriateness, and any other identified harm, is clearly outweighed by other considerations, so as to amount to very special circumstances necessary to justify the development in a Green Belt location.
- 6.26. Local Plan Policy CS23 does state that the Council would support applications for renewable and low carbon infrastructure provided that they do not cause significant harm to the openness of and amenity of the Green Belt, except in Very Special Circumstances. This aligns with National Policy and Policy CS5 of the Local Plan. Therefore, Very Special Circumstances will need to be demonstrated as part of the proposal. A full LVA and supporting Green Belt Assessment is provided in support of the application and is discussed in greater detail below.
- 6.27. The Site is not located within any sensitive areas as defined by the EIA regulations and as such by virtue of its siting, the proposal has taken into account the need to protect the valuable landscape and ecological resources provided within the surrounding countryside,

whilst providing for the sensitive exportation of renewable energy sources in accordance with the policies set out in the NPPF. The local and national targets provide significant weight in favour of the development proposal as significant acceleration of low carbon and renewables will be required to meet these targets. It is considered that the wider environmental benefits associated with the development greatly outweighs any perceived adverse impacts the development may have on the surrounding countryside.

Development in the Green Belt

- 6.28. As set out above, Policy CS5 of the Local Plan states that the Council will not permit development within the Green Belt, unless Very Special Circumstances can be demonstrated. The NPPF refers to renewable energy projects as inappropriate development and in such instances 'very special circumstances' will need to be demonstrated to justify development. The NPPF continues to state "*...such special circumstance may include the wider environmental benefits associated with increased production of energy from renewable sources.*"
- 6.29. However, the NPPF supports the development of renewable energy where it firmly identifies how the wider environmental benefits associated with the development should contribute towards demonstrating very special circumstances.

Very Special Circumstances

- 6.30. The decision of Sullivan J. in R (Basildon DC) v FSS [2004] EWHC 2759 (Admin) established that in relation to Very Special Circumstances ("VSC") in Green Belt cases "a number of factors, none of them "very special", when considered in isolation may, when combined together, amount to very special circumstances. Thus, for example, in this case the ecological enhancements and local economic benefits may not in themselves amount to exceptional circumstances but they can contribute to establishing such.
- 6.31. The factors which contribute towards very special circumstances include: –
- Under the NPPF one of the core principles is the need to support the transition to a low carbon future in a changing climate; and to encourage the use of renewable resources. The development does both of those things. Planning is also acknowledged to play a key role in securing reductions in greenhouse gas emissions and in supporting the delivery of renewable and low carbon energy. This is reflected in the Knowsley and Liverpool City Region's declaration of a climate emergency and their Action Plan and Pathway Report and the application proposal contributes towards this.
 - It is nationally recognised there is limited grid capacity within the national infrastructure. Thus, where capacity has been identified and secured in principle Sites that can be made appropriate should be supported where identified. Notwithstanding the environmental suitability of a Site, and this would apply to any BESS scheme at any Site, the project would only come forward if it was financially viable. In the market system, it is for the applicant to ensure that there will be the necessary infrastructure and capacity within a distribution network to accommodate the electricity generated. Grid connection is therefore an important factor in energy storage and generation projects, and the availability of efficient grid connections allows projects to come forward. The location of the grid connection is

therefore a material consideration in the Site selection process. The National Policy Statement EN-1 identifies how grid connection is as an important consideration for applicants wishing to construct generation plant; and this consideration is an important element for any renewable energy or storage project which is seeking to connect to the national electricity infrastructure.

- Lack of available alternative brownfield Sites or Sites outside of the Green Belt capable of accommodating the development. The Applicant has conducted a thorough assessment of alternative Sites and other available grid connection points within the same distribution supply area and within the Council's wider jurisdiction. The findings of the Site Selection Report are set out later in this section below.
- Knowsley is a predominantly urban areas, characterized by the wider Liverpool urban area extending from the west and south. There are also areas in open countryside located to the south and the northeast. A total of 48.9% of the LPA is considered to be Green Belt according to the UK Government's Live Green Belt statistics table 2023–24. The remaining areas of the LPA are predominantly urban areas or designated Parks and Gardens such as the expansive Grade II Listed Knowsley Park. In order for the council to embrace opportunities for renewable energy there should be acknowledgement that these can come forward within the Green Belt.
- The proposal would provide greater capacity and flexibility in the energy generation network and the proposed battery storage would support the move towards low carbon energy network supplied increasingly by renewable energy developments. The proposal constitutes critical development required for the exploitation of renewable energy and will make an important contribution to ensure that Knowsley Council can meet their planning objectives in minimising greenhouse gas emissions and supporting the use of renewable energy.
- Retention of the Site's future use as agricultural land with a time restricted development. The Proposed Development is temporary (approximately 40-years) after which the Site can be restored to its original condition. The end of the project brings further benefits to recycle the materials used.
- Significant net gains in biodiversity, calculated at 16.5% in area (non-linear) habitats and a net gain of 3.84 of hedgerow units from a baseline of zero and a net gain of over 100% in watercourse units.

Green Belt Assessment

- 6.32. This section of the Planning, Design and Access Statement assesses the extent to which the land parcel associated with the Proposed Development contributes to five Green Belt purposes, how the development would impact on that contribution, and to identify any potential degree of harm upon the Green Belt.
- 6.33. The Green Belt assessment is based on the fundamental objectives of the NPPF Green Belt policy, as identified in its five purposes: –
- Purpose 1 – To check the unrestricted sprawl of large built-up areas
 - Purpose 2 – To prevent the neighbouring towns merging into one another

- Purpose 3 – To assist in safeguarding the countryside from encroachment
- Purpose 4 – To preserve the setting and special character of historic towns
- Purpose 5 – To assist in Urban regeneration, by encouraging the recycling of derelict and other urban land

6.34. A summary of the Council’s last assessment findings for the relevant parcel is first set out before undertaking a more detailed site specific assessment.

6.35. This assesses the contribution of the site for each purpose and the impact of the development proposals upon this purpose of the Green Belt using the following scale. In conducting this assessment it is noted the scale of change across the wider Green Belt is very small.

Contribution to Purpose of the Green Belt	Impact upon Purpose of the Green Belt
Strong	Major
Moderate	Moderate
Weak	Minor
None	None

Table 1 – Green Belt Assessment Methodology

Knowsley and Sefton Green Belt Study (2012)

6.36. The most recent assessment of Green Belt was published in 2012 as the Knowsley and Sefton Green Belt Study, whereby the application site fell within Parcel K004 as shown below:



Figure 5 – Knowsley and Sefton Green Belt Study Parcel K004 extract

- 6.37. This provides the following high-level assessment under the defined methodology against the five purposes, at the scale of Parcel K004 only:
- Purpose 1 – To check the unrestricted sprawl of large built-up areas: ‘Partly Contained’ (second on three point scale from well contained to not contained);
 - Purpose 2 – To prevent the neighbouring towns merging into one another: ‘Wide Gap’ (fourth lowest on five-point scale from Essential Gap to Not Applicable);
 - Purpose 3 – To assist in safeguarding the countryside from encroachment ‘Countryside Uses’ (defined as either Countryside Uses or Not in a Countryside Use);
 - Purpose 4 – To preserve the setting and special character of historic towns: ‘Not within a historic setting’; and
 - Purpose 5 – To assist in Urban regeneration, by encouraging the recycling of derelict and other urban land: No commentary provided.

6.38. A more detailed site-specific assessment is set out on behalf of the applicant below, described by each purpose of the Green Belt.

Purpose 1 – To check the unrestricted sprawl of large built-up areas

- 6.39. The Site is bounded by Perimeter Road to the west, which forms the boundary of the Knowsley Business Park (KBP). The KBP is characterised as an industrial area formed of large commercial buildings.
- 6.40. To the north, east and south are further agricultural fields with sporadic isolated dwellings. In addition, the Kirkby 275kV Substation and A580 are located beyond the fields to the south.
- 6.41. The surroundings to the south, east and west contain a number of isolated dwellings. There are 275kV and 132kV pylons that traverse the Site from the north to the Substation. This infrastructure compromises to a degree, the character and ruralness of the landscape within the Site, including its openness.
- 6.42. The main built development of the Site is not located directly adjacent to the development boundary, such that it would be read remotely from the defined urban edge.
- 6.43. The application site therefore contributes to purpose 1, but is impacted by existing energy infrastructure and is remote from the defined urban edge to the west that resulted in the noted as ‘Partly Contained’ categorisation within the Council’s assessment.
- 6.44. The contribution of the site to purpose 1 is therefore assessed as moderate and the impact upon this purpose of the Green Belt is considered to be minor adverse.

Purpose 2 – To prevent the neighbouring towns merging into one another

- 6.45. The Green Belt at this location presents a large distance to the built up edge of the closest neighbouring town of St Helens, at over 4.5km away from Kirkby⁴.
- 6.46. The Applicant's assessment of purpose 2 in relation to the Site therefore also concludes that there is a wide gap between the settlement of Kirkby and any other town.
- 6.47. On that basis, the contribution of the Site to Purpose 2 is considered to be at most weak. If developed it would have no adverse impact upon the performance of this purpose of the Green Belt.

Purpose 3 – To assist in safeguarding the countryside from encroachment

- 6.48. As acknowledged previously, the Site is largely devoid of any development except for the large-scale pylons. The immediate surroundings include the commercial/industrial area to the west.
- 6.49. The development of the Site for a battery storage facility would be in keeping with local land uses currently present within the Green Belt including the energy infrastructure in the vicinity of the Site.
- 6.50. As referenced above, the proposed development and 'urbanising' effects would however be remote from the defined urban edge. This part of the Site is in addition considered to be visually contained. Views are limited to those from Perimeter Road and the Public Rights of Way within and in the immediate vicinity of the Site.
- 6.51. The contribution of the site to this purpose is therefore assessed as moderate and the overall impact is assessed as minor adverse.

Purpose 4 – To preserve the setting and special character of historic towns

- 6.52. As identified in Section 3 of this statement, the Site is not located in close proximity to any identified conservation areas or significant listed buildings. There are no key landmarks or historic settlement cores visible from within the Site or broad area and therefore it follows that, if assessed in isolation, the Site's contribution to this purpose is nil.

Purpose 5 – To assist in Urban regeneration, by encouraging the recycling of derelict and other urban land

- 6.53. The nature of the development and required volume of space, means a town centre location is neither practical nor realistic. It is considered that a BESS development at this Site would neither hinder nor discourage urban regeneration of towns within the local authority's jurisdiction.

Historic Appeal Decisions within the Green Belt

⁴ Note that the closer settlement of Rainford, at over 4km away to the north-east, is referred to as a village within the St Helens Borough Local Plan (July 2022).

6.54. The appeal decisions set out below relate to issues which are relevant to the proposal, and in particular with respect to BESS and renewable energy proposals more generally where they are located within Green Belt locations. They indicate that Inspectors have accepted that BESS provide essential infrastructure to support the delivery of renewable and low carbon energy and that substantial weight should be attached to the significant environmental benefits associated with these forms of development, thus demonstrating Very Special Circumstances required to justify development within the Green Belt.

6.55. In February 2022, an appeal was made by Pegasus Group for a BESS development in proximity to the West of Wolverhampton BSP Substation, West of South Staffordshire Railway Walk, Wolverhampton, WV4 4XX (Ref: APP/C3430/W/22/3292837). The main issues of the appeal were:

- Whether the Proposed Development would be inappropriate development in the Green Belt;
- The effect of the Proposed Development on the openness of the Green Belt, and;
- Whether the harm by reason of inappropriateness, and any other harm, would be clearly outweighed by other considerations so as to amount to the very special circumstances required to justify the proposal.

6.56. The appeal was allowed on 16th August 2022. In allowing the appeal the inspector concluded that:

“The proposal would be inappropriate development in the Green Belt, which, by definition, is harmful. To this must be added further moderate harm arising from the loss of openness, and from being contrary to the purposes of including land within the Green Belt. Paragraph 148 of the Framework indicates that any harm to the Green Belt should be given substantial weight.

Paragraph 151 of the Framework accepts that very special circumstances will need to be demonstrated if developments are to proceed in the Green Belt. It states that very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources. Although modest in scale, the appeal scheme would make a valuable contribution to cutting greenhouse gas emissions, by increasing the opportunity to store energy, and this also attracts substantial weight.

National policy advises that developments should be located where impacts are, or can be made, acceptable. I consider that the location of the proposed development, adjacent to an existing substation and agricultural buildings, together with the existing and proposed landscaping means that this would be the case here. Additionally, whilst the proposed development would be located at the Site for a number of years, it is reversible and capable of being removed from the Site.

Therefore, and in my judgement, The environmental benefits of the proposal and the fact that the impacts can be made acceptable, are sufficient to outweigh the harm to the Green Belt. Consequently, the very special circumstances necessary to justify the proposal do exist and the scheme would not conflict with LP Policy GB1 or the Framework...

I have concluded above that, for this appeal, very special circumstances exist to justify inappropriate development in the Green Belt that would reduce openness. My findings on other matters do not lead me to reach a different conclusion. Consequently, the proposal would comply with the relevant provisions of the Framework and the development plan when considered as a whole. The appeal should therefore be allowed”.

6.57. A further appeal was allowed on 1st August 2022 for the installation and operation of a battery storage facility and ancillary development on land south of Monk Fryston Substation, Rawfield lane, Monk Fryston, Selby (Ref: APP/N2739/W/22/3290256). Both the appellant and Selby District Council agreed in their evidence that the Proposed Development would be inappropriate development in the Green Belt as defined by the National Planning Policy Framework (the Framework). On that basis, the main issues of the appeal were determined to be:

- The effect of the proposal on the openness of the Green Belt and the purpose of including land with it.
- The effect of the development on the character and appearance of the surrounding area.
- Whether the harm by reason of inappropriateness, or any other harm, is clearly outweighed by other considerations so as to amount to the very special circumstances necessary to justify the development.

6.58. In their determination of the appeal, the inspector concluded that:

“The proposal would be inappropriate development in the Green Belt. The Framework indicates that inappropriate development is, by definition, harmful to the Green Belt and that substantial weight should be given to that harm. Very special circumstances will not exist unless the harm to the Green Belt and any other harm are clearly outweighed by other considerations.

I have reasoned above that there is harm to the openness of the Green Belt, and to the character and appearance of the area, albeit mitigated by the fact that the proposal would include considerable levels of additional landscaping that would establish over a period of time, and that the development itself is time limited, although this is a considerable period of time.

It is also apparent that there is a clear and pressing need to address the energy strategy issues facing the country, hence the need for the proposal. In addition to this the proposal has been supported by a considerable level of technical data and justification for the proposal as to why it needs to be located in the Green Belt.

These considerations, collectively, carry great weight and I conclude that they amount to very special circumstances, sufficient to outweigh the harm to the Green Belt, by reason of inappropriateness and the effect on openness”.

6.59. Whether the harm by reason of inappropriateness, or any other harm, it is clearly outweighed by other considerations so as to amount to the very special circumstances necessary to justify the development.

Grey Belt Assessment

- 6.60. It is acknowledged that the application Site is located within the North West Green Belt. However, this following section demonstrates that the Site is not a form of development that the National Planning Policy Framework (NPPF) 2024 defines in Paragraph 155 as development that would be inappropriate within the Green Belt.
- 6.61. As highlighted above, Grey Belt land has recently been added into Annex 2 of the NPPF, and advice on the role of the Green Belt in the planning system was published in the revised Planning Practice Guidance (PPG) on 27th February 2025.
- 6.62. Grey Belt is defined in Annex 2 of NPPF as *'land in the Green Belt comprising previously developed land and/or any other land that, in either case, does not strongly contribute to any of purposes (a), (b), or (d) in paragraph 143. 'Grey belt' excludes land where the application of the policies relating to the areas or assets in footnote 7 (other than Green Belt) would provide a strong reason for refusing or restricting development.'*
- 6.63. The purposes of Green Belt defined in NPPF paragraph 143 are:
- 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."*
- 6.64. Each of the emboldened points above are discussed in turn above in the Green Belt Assessment Section.
- 6.65. The assessment presented above and in the GB Assessment concludes that the Site does not strongly contribute to Purpose a), Purpose b), or Purpose d) of the Green Belt.

Effect of the Site on NPPF Footnote 7

- 6.66. NPPF Footnote 7 identifies eight policies which may provide strong reason for restricting development. Each policy area identified in Footnote 7 is discussed in the below table.

Policy Area	Assessment
Habitats sites (and those sites listed in paragraph 194) and/or designated as Sites of Special Scientific Interest	The Site is located within, or adjoins any habitat sites or SSSIs. The PEA concludes that there is no impact on any habitat sites.
Land designated as Green Belt, Local Green Space, a National Landscape, a National Park	The Site is located within the Green Belt, which is the foundation of this

(or within the Broads Authority) or defined as Heritage Coast	assessment. There are no impacts on any other landscape designations.
Irreplaceable habitats	There are no irreplaceable habitats within the site.
Designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 75)	There are no predicted impacts on designated heritage assets, or any archaeological assets given the previous use of the site as a landfill.
Areas at risk of flooding or coastal change	The site is at no risk of flooding or coastal change.

- 6.67. Therefore, with reference to NPPF paragraphs 155 and PPG paragraph 007, the Site does not contribute to Purpose a), Purpose b), or Purpose d) of the Green Belt and on that basis the site constitutes Grey Belt Land. There is thus no reason to refuse development on the basis of NPPF Footnote 7.

Assessment on inappropriate development

- 6.68. Having established that the Site lies within Grey Belt land, an assessment of whether the proposed development comprises 'not inappropriate' development in the Green Belt under paragraph 155 of the NPPF is required in relation to the 5 limbs of paragraph 155.
- 6.69. Limb a) of paragraph 155 specifies that development that would utilise Grey Belt would not fundamentally undermine the purposes (taken together) of the remaining Green Belt across the area of the plan. The GB Assessment, supported by this application's Landscape Masterplan as per PPG Note Paragraph 002, concludes at para. 5.17 and 5.20 that the Proposed Development would not fundamentally undermine the five purposes of the remaining Green Belt when taken together.
- 6.70. Limb b) of paragraph 155 specifies that development in the Green Belt is also not inappropriate where there is a demonstrable unmet need for the type of development proposed. The overall need for renewable energy (both nationally and locally) is well documented.
- 6.71. There are no conflicts with limb c) of paragraph 155, as there are no significant impacts arising on the Highway Network. This is in keeping with the conclusions of this application's Construction Traffic Management Plan (CTMP).
- 6.72. Limb d) of paragraph 155 relates to housing developments and so is not relevant for the Proposed Development.
- 6.73. As such, the Proposed Development satisfies the 5 limbs of paragraph 155 in NPPF and therefore is considered to not be inappropriate development in the Greenbelt.

6.74. The first solar farm where it was agreed between an Applicant and Local Planning Authority that the application site was Grey Belt, was the Burcot Solar Farm Appeal (Ref. [3350890](#)), located in South Oxfordshire. The definition of the site as Grey Belt was agreed prior to the planning Inquiry, in light of the updated NPPF and NPPG. The Inspector acknowledged the common ground between the two parties and confirmed in paragraph 4 of their decision as the site was defined as Grey Belt there was no requirement to separately assess the impact of the development on the openness of the Green Belt, or the purposes of including the land within it.

6.75. Additionally, the Inspector gave substantial weight to the contribution made to renewable energy generation, addressing climate change and to improving energy resilience and security. This being the case, it is anticipated that the same weight would be attributed in the planning balance to the proposed scheme.

Site Selection

6.76. Alongside this Planning Statement the applicants have duly submitted an Alternative Site Assessment, which assess if there are any potential sites within the surrounding area of the Proposed Development which are more suited for a BESS development.

6.77. The development site meets the requirement of the NPPF with respect to the Green Belt for the following reasons.

- The distribution network within Knowsley and Merseyside is significantly constrained. There are no Point of Connection (PoC) identified that can accommodate the proposed development, but Scottish Power MANWEB Plc have agreed that the Kirkby Supergrid (GSP) substation will have suitable capacity to accommodate the development in the future. The substation is located on the boundary of the Green Belt. It is not the purpose of this report to identify alternative sites for the PoC, only to demonstrate that there are no alternative site options on either brownfield/previously developed land or land outside of the Green Belt.
- The site has to be located in close proximity to the proposed PoC, in this case the existing Kirkby Supergrid (GSP) Substation with suitable access to the highway to enable the safe movement of construction vehicles during the construction process. This does not mean that it would be feasible or viable to connect every location near to the substation because it will depend on factors such as the intervening presence of development, landscape features, infrastructure, and the type of terrain. Establishing a connection to a generation or storage development will need to run underground to the substation itself, with the financial viability of the connection declining as distance increases (estimates of such costs are c£800-£1000 per linear metre, or around £500,000 for a connection 500m away). Therefore, a search area with a 2km radius of the substation was established to form the study area for potential sites.
- Knowsley Council's Brownfield Register was first reviewed for potentially suitable alternative sites. No brownfield or previously developed sites were identified to be suitable within the Search Area and where brownfield or previously developed sites were identified within close proximity of the area of search, these had already been earmarked for residential redevelopment or employment development. No suitable non-agricultural or brownfield/previously developed sites were identified within the

Study Area, thus demonstrating the need for the use of agricultural land to accommodate the proposed development.

- All agricultural land within the search area was identified to fall outside of the defined settlement boundaries and subsequently falls within the Green Belt. As no suitable agricultural land outside of the Green Belt is available within the area of search, it has been sequentially demonstrated that agricultural land within the Green Belt is required to accommodate the development proposals.
- There are land rights in place to enable the Development to progress at the Development Site and there is also a grid connection offer accepted with Scottish Power MANWEB Plc as the DNO. Both would be uncertain at any other potential alternative sites within the Green Belt. Notwithstanding this, whilst there may be other potential alternative sites within the Green Belt that could accommodate the proposed development, any effects associated with the development would likely be similar. It is not the purpose of this report to identify whether these sites within the Knowsley Green Belt would be more suitable.
- The search area is mostly Urban, and BMVAL land. It is demonstrated above that although the land is classed as Grade 1, the previous use of the site as historic landfill heavily restricts use of the site as such. It is demonstrated that there is no available land within Grade 4 land due to constraints, there are not previously developed/brownfield sites available and no non-agricultural land available.
- The 2km search area is heavily constrained by peat. The development is located within a site identified for peat, but again, due to the previous use of the site as landfill, it is considered that no valuable peat deposits would be impacted by the development, and therefore the site is suitable.

Green Belt Assessment Conclusions

- 6.78. The assessment above identifies that the site presents contributions to the five purposes of the Green Belt varying from none to moderate, with harms ranging from none to minor adverse.
- 6.79. Nonetheless, the NPPF makes clear that ‘inappropriate development’ within the Green Belt is inherently harmful and requires that very special circumstances are evidenced to justify.
- 6.80. The application is supported by an Alternative Sites Assessment evidencing that alternative sites outside of the Green Belt or Previously developed Land within the Green Belt are not available.
- 6.81. This evidence of a lack of alternatives alongside the identified and necessary contributions to renewable energy infrastructure presented by the scheme and associated sustainable benefits arising present clear very special circumstances that justify development within the Green Belt. The proposals accordingly demonstrate compliance with Core Strategy Policy CS5 and Section 13 of the NPPF.

Highway Considerations

- 6.82. This application is supported by a detailed Construction Traffic Management Plan (CTMP) which assess the overall impact of the Proposed Development on the local highways network and recommends suitable traffic and construction management proposals to limit the overall impact of the development on the surrounding highway network. The salient points of the CTMP are discussed in greater detail below.
- 6.83. The designated route for construction traffic associated with deliveries to access the site from the Strategic Road Network is summarised below:
- i. Exit the M57 at Junction 4 turning onto Moorgate Road South before turning east onto the A580.
 - ii. Continue east on the A580, wherefrom vehicles will turn north onto the A5208.
 - iii. Head north on the A5208 to the South Boundary Road/Perimeter Road/Molly's Lane roundabout, taking the second exit onto Perimeter Road; and
 - iv. Access the site from Perimeter Road.
- 6.84. There are no signed height or weight restrictions or schools along the proposed route and no road closures are anticipated to be required.
- 6.85. The construction route will be utilised in reverse for construction vehicles exiting from the site.
- 6.86. The construction activities at the Site are to be split into three phases, and the details of each phase is provided below:
- **Phase 1** – Enabling works (two to three months – 54-64 working days)

Site clearance, soil stripping and construction of internal access tracks. There will be a total of 115 HGV deliveries (230 two-way trips). This equates to around one delivery (two two-way trips) per working day in Phase 1.
 - **Phase 2** – Main construction phase (five to six months – 108-144 working days)

Construction of foundations, trenches, ducting for cables and delivery of battery containers and associated equipment. There will be a total of 75 HGV deliveries (150 two-way trips). This equates to around one delivery (two two-way trips) per working day in Phase 2.
 - **Phase 3** – Post construction (two to three months – 54-64 working days)

Installation of fencing, CCTV and progression of landscaping. There will be a total of 25 HGV deliveries (50 two-way trips). This equates to around one delivery (two two-way trips) every four working days in Phase 3.
- 6.87. Once operational, there are anticipated to be two trips per month by a 4x4 vehicle or small van for maintenance purposes. Whilst the contractor's compound will have been removed, a parking area will remain within the site for vehicles to turn. The infrequency of these trips

will have an immaterial impact on the local highway network and there will be no intensification of the use of the access compared to the existing land use.

- 6.88. Assuming a nine month construction period as a worst case and a six day working week (216 days), it is anticipated that there will be an average of around two HGV (four two-way movements) per day. It is anticipated that greater activity will take place in the earlier months (enabling and construction phases) associated with the delivery of construction materials. The later months would be associated with smaller vehicle sizes such as vans and Light Goods Vehicles.
- 6.89. There will also be construction workers arriving at the site first thing in the morning and departing in the evening, although the numbers involved are forecast to be relatively low on a day-to-day basis and minibuses will be provided for general operatives. The level of traffic during the temporary nine to 12 month construction phase is not considered to be material and it is considered that this will not have a detrimental impact on the safety or operation of the local highway network.
- 6.90. Turning to Public Rights of Way (PRoW), there are two located within the Site. These are proposed to remain open during the construction phase with no requirement for temporary or permanent diversions as a result of the scheme. All management and mitigation measures set out within this report will be implemented prior to construction activities at the site commencing.
- 6.91. Mitigation and management procedures will be put in place where the PRoWs cross through the site. These measures will include:
 - i. when construction plant and machinery are accessing the site, a banksman will be employed to control both pedestrian movements and HGV traffic. Banksmen will ensure that users of the PRoW always have priority.
 - ii. where possible fencing will be placed along the PRoW routes where they cross the site with gated sections in the vicinity of the internal access tracks. Vehicles will only be permitted to cross the PRoW at designated crossing points; and
 - iii. signage will be erected at each end of the affected PRoWs in the vicinity of the site boundary advising users of ongoing construction activities at the site. Further signage will be positioned on the approach to both sides of each crossing point for both construction traffic and PRoW users.
- 6.92. Once the development is operational, the PRoWs will not be obstructed by any fencing and the definitive widths and alignments will be retained.

Landscape Considerations

- 6.93. In order to assess the impact of the Proposed Development on the local landscape character and surrounding visual receptors, a detailed Landscape and Visual Appraisal (LVA) has been produced by Urban Green and is submitted in support of this application. The LVA assesses the impact of the proposals both during construction and during operation on the landscape character and on key local views and has been used to inform a detailed landscape mitigation strategy for the proposal. The salient points of the LVA are discussed below.

Landscape Character

- 6.94. At a national level, the anticipated landscape effect of the future development of the Site are anticipated to be negligible and entail negligible change to the existing landscape of NCA 32 Lancashire and Amounderness Plain or NCA 58 Merseyside Conurbation.
- 6.95. At the local and Site level, the proposed development will maintain the existing green infrastructure adjacent to the Site's southern and eastern boundaries, and the vegetation removal is limited to two trees at the Site. The Site has been carefully designed to ensure the built development is located to the south of the Site, away from the more sensitive portions of the field adjacent to northern and western boundaries. The Site is also already subject to a number of detracting elements in the vicinity including the presence of energy infrastructure elements such as electricity pylons and high voltage cables within and in the local landscape context of the Site.
- 6.96. The magnitude of effect is anticipated to be Small resulting in an overall Minor adverse effect on the landscape character at the Site level and Negligible adverse on the Simonswood Moss landscape character area at the district level. Effects are anticipated to reduce over time as the proposed landscape structure planting to the Site boundaries matures.
- 6.97. Assessment of the Green Belt is discussed separately above. In overall terms, the proposed development of the Appraisal Site would give rise to some Negligible and Minor adverse effects on landscape character, Minor beneficial effects on landscape features and the vegetation at the Site level and Minor adverse effects on the local Green Belt designation. There are not anticipated to be any further landscape effects on receptors in the study area. It is therefore considered that the development of the Site would not constitute an overall significant or unacceptable environmental effect.

Visual Amenity

- 6.98. The local area has limited residential properties, and therefore it is considered that views to the development for residents of dwellings are wholly truncated due to a combination of intervening mature vegetation or built form. There are therefore not anticipated to be any effects on residents.
- 6.99. Turning to PRowS, namely Footpath KB 19/1 and Bridleways KB 18/2 and KB 18/3 in close proximity to the Site's eastern boundary. For visual receptors along these routes, the proposals would form new built elements within the view and would comprise an overall Small magnitude of effect for footpath users within the Site and in close proximity reducing to Negligible for users at greater distances along these routes. Since users of Public Rights of Way are considered to be high sensitivity receptors, the overall significance of effect is considered to range from Moderate for footpath users within and in the immediate vicinity of the Site reducing to Minor adverse at greater distances.
- 6.100. Negligible Impacts are predicted on road users and employees at their place of work. No impacts are predicted on Heritage Assets and public open spaces.
- 6.101. The potential development of the Site is therefore considered to have a range of Negligible to Moderate effects on visual receptors within the study area, primarily for receptors within or in close proximity to the Site. Effects are anticipated to reduce over time as the proposed planting matures.

- 6.102. In summary, the proposed development will sit within the existing landscape character without causing significant harm. New tree planting is to be considered for long term replacement ensuring the longevity and vigour of the existing vegetation is maintained on Site.

Ecology and Biodiversity

- 6.103. This planning application is accompanied by a series of technical studies including a Preliminary Ecological Appraisal (PEA) undertaken by Urban Green. This Ecological Appraisal discusses the likely effects of the Proposed Development on the ecology of the Site using information collected during a suite of surveys conducted by Urban Green in Spring–Summer 2024 and updated in April 2025.
- 6.104. The original PEA survey found the site to comprise marshy, cattle–grazed modified grassland, bordered by plantation woodland and minor scrub, with an agricultural ditch lining the south of the site. Noted ecological constraints were:
- Presence of invasive, non–native Himalayan balsam (*Impatiens glandu/ifera*) and Japanese knotweed (*Reynoutria japonica*).
 - Suitable habitats for reptiles
 - Suitable habitats for commuting and foraging bats
 - Potential for overwintering birds
 - Potential presence of water vole
 - Suitable habitats for common mammals, and amphibians.
- 6.105. A suite of surveys for the above constraints were conducted throughout spring – summer 2024. These surveys assessed an absence of reptiles, overwintering birds, and water voles at the site, and only a minor presence of common bat species foraging.
- 6.106. The 2025 Ecological Walkover identified that the Site's grassland parcel has been fenced off from cattle since the 2024 surveys. This has allowed lesser disturbance to the grassland and a taller and more complex sward. Based on this resurvey, much of the site's area has been reclassified, from formerly modified grassland (g4) to *HolcusJuncus* neutral grassland (g3c8). This is excluding the southwest corner of the site, west of the southern woodland, which has been reclassified to other neutral grassland (g3c), owing to its lack of dominant rushes, symptomatic of more effective drainage into the nearby ditch.
- 6.107. Despite habitat reclassification, no additional ecological constraints were assessed for the site. As the results 2024 suite of species surveys are considered valid until at least the summer of 2026. Therefore, the results and mitigations detailed in the September 2023 PEA and subsequent surveys conducted spring to summer 2024 remain valid.

Bats

- 6.108. Bat surveys were conducted following the PEA. The survey identified that the common pipistrelle are the dominant species utilising the site. The Applicant has undertaken

avoidance measures by retaining large areas of woodland to the south and east of the Site, which equates to an avoidance of direct impacts to these areas of preferred habitats.

- 6.109. Additionally, specific mitigation measures have been identified in relation to noise and lighting. Acoustic barriers will be installed to the south and east of the Site to minimise any noise related impacts. Additionally, no permanent lighting is proposed for the Site. Security lighting is proposed at the Site, but these will be inward facing and will following the recommendations outline in the Bat Activity Survey Report.

Reptiles

- 6.110. No reptiles were identified during the survey, however the Site is considered suitable for the presence of reptiles. The survey report outlines the following recommendations, which are proposed as part of the development:
- Creation and installation of log piles in sunny areas for the benefit of cover, structural complexity, and encouragement of amphibian, mammal, and invertebrate prey. Additional brash piles may be likewise created, from the material collected from scrub clearance on the site.
 - The mosaic of unmanaged and lesser-managed grasslands, and scrub should be retained and maintained as best possible in the finalised landscaping plans.

Water Vole

- 6.111. No evidence of water voles was recorded; therefore, water voles are considered absent from the site and no further survey effort or mitigation is recommended in relation to this species.

Wintering Birds

- 6.112. No protected wintering bird species were identified within the survey area. It is recommended that the proposed works proceed in a timely manner, without the need for further ecological guidance or survey with respect to wintering birds.

Biodiversity Net Gain

- 6.113. As demonstrated by the BNG Calculation there would be a +16.5 % for habitats and an increase of 3.84 habitat units from a baseline of zero for hedgerows net-gain improvement, and a 100+% increase in watercourse units.
- 6.114. The PEA and subsequent surveys and updates conclude that the proposed development, following the implementation of the outline recommendations, will have no impact on ecology. The proposal leads to a significant BNG increase, along with the integration of the hedgerow and trees within the local Green Infrastructure Network, the proposal will protect and enhance the biodiversity on-site and in the local surroundings. The proposed development is therefore in line with National Planning Policy Framework paragraph 180 and Local Policies

The Historic Environment

- 6.115. As identified in section 3, initial desk-based studies identified very limited potential for harm to the significance or setting of any statutory designated heritage asset with no designated historic sites located within 1.5km of the site. The closest listed building to the site is located over 1.5km to the northeast of the site.
- 6.116. The proposed development will therefore conform with Policy CS20 which relates to preserving and enhancing the historic environment in Knowsley.

Arboriculture

- 6.117. The proposed development would necessitate the removal of two individual trees within the site boundary. The tree removal will be mitigated against through onsite replacement tree planting and the robust soft landscaping scheme.
- 6.118. Areas within the site beyond the distance of influence from the proposed development will constitute a Construction Exclusion Zone, as indicated on the Tree Protection Plan, within which no onsite operations of any kind are to be undertaken.
- 6.119. Overall, there will be a very limited impact upon arboricultural interests that will be comfortably mitigated for within the proposed landscape solution. The proposal is therefore in line with Policies.

Noise

- 6.120. The application is accompanied by a Noise Impact Assessment, prepared by InAcoustic. The Assessment concludes that the the Proposed Development will give rise to rating sound levels that are at least 5 dB below the measured background sound level in the area, thus giving rise to a 'Low Impact' and compliant with the Planning Condition proposed by the Environmental Health & Consumer Protection Team at Knowsley Council. Consequently, the assessment demonstrates that the Proposed Development will give rise to noise impacts that would be within the range of NOAEL of the NPPG England guidance.

Land Contamination and Landfill Gas Safety

- 6.121. The Phase 2 Site Investigation Report provides a Risk Assessment from contamination. The Report provides a Qualitative Gas Risk Assessment and a Geotechnical Risk Assessment.
- 6.122. The Qualitative Gas Risk Assessment state that a high methane and carbon dioxide is present within the ground beneath the Site and are consistent with a landfill site. Mitigations measures will be identified following a detailed quantitative assessment and suitable gas protection measures be designed and incorporated into the development to mitigate against any gas risks identified in the DQGRA.
- 6.123. The Geotechnical Risk Assessment has confirmed that the site is likely to be suitable for the proposed development. The landfill materials are likely to benefit from compaction using Rolling Dynamic Compaction (RDC), to minimise the extent of any excavation of waste materials. The proposed RDC method of compaction will also improve the bearing capacity of the made ground and accelerate primary settlement to within development time frames

- 6.124. It should also be noted that the areas used for the illegal landfill between 1989–1992 are located outside of the redline boundary and are not part of the proposal.

Flood Risk and Drainage

- 6.125. The proposed surface water drainage strategy for the site comprises the following:
- 1 no. attenuation basin (with deeper area for permanent water to support biodiversity and ecology);
 - 2 no. swales connected to the attenuation basin;
 - Filter strips and filter drains with outfalls to the swales;
 - Ditch/ swale along southern side of access road. Check dams could potentially be integrated in the ditch/ swale to maximise surface water storage along the length of the ditch;
 - Pumping station and rising main on access road to connect back to main drainage network;
 - Below-ground cellular storage adjacent to the pumping station;
 - Impermeable liners e.g. butyl to be installed below the attenuation basin, filter strips, filter drains, swales, ditches and granular areas e.g. access tracks within the battery container compound to prevent any pollutants from entering the ground or contaminants entering the system;
 - 1 no. vortex flow control (downstream of attenuation basin);
 - Outfall ditch to connect the vortex flow control to existing watercourse.
- 6.126. The system shall discharge to the existing watercourse in the southwest corner of the site (which bounds the southern side of the site) at a maximum restricted rate of 2.5 l/s, which matches the 1-year greenfield runoff rate (calculated based on the proposed impermeable area).
- 6.127. The Environment Agency Flood Map for Planning indicates that the proposed site lies within Flood Zone 1, and is therefore at 'Very Low' risk of fluvial and tidal flooding (less than 1 in 1000 probability of flooding in any given year). An ordinary watercourse lies to the south of the site which is within Flood Zones 2 and 3. Environment Agency surface water flood risk mapping indicates that isolated parts of the site are at 1 in 30 (3.3%), 1 in 100 (1%) and 1 in 1000 (0.1%) risk of surface water flooding each year. The Environment Agency flood risk service also states that flooding from groundwater and reservoirs is unlikely in this area. No flood risk sources are considered to pose an unmanageable risk to the development, and therefore the proposed BESS facility is considered suitable in this location.
- 6.128. The proposed surface water drainage system incorporates open SuDS in the form of swales and an attenuation basin. A series of filter drains are positioned around the perimeter of the BESS platform to capture surface water runoff before discharging to the southern swale. A flow control chamber is located downstream of the attenuation basin with the outflow rate

restricted to the 1 in 1 year greenfield runoff rate for the site. A new headwall/ outfall will be constructed within the existing watercourse.

- 6.129. A new mains water supply and hydrant connection is currently being explored, which is the preferred means of providing a water supply to the Sandy Brow Lane BESS site. A firewater holding tank is proposed as an alternative to a new hydrant connection (on the north-eastern side of the site) would only be progressed if a new mains supply is not feasible.
- 6.130. Overall, the proposed development is located in a suitable location and the proposed drainage strategy will ensure that no further areas will be at risk of flooding.

Battery Safety

- 6.131. The supporting Outline Battery Fire Safety Management Plan provides an overview of the minimum safety features any BESS technology selected for use by Balance Power Ltd will incorporate and the steps taken to reduce any potential risk to life, property and environment from the BESS.
- 6.132. The proposed BESS will minimise fire risk by:
- Procuring components that comply with all relevant legislation and best practice guidance at a time of design and implementation.
 - Employment of construction techniques that comply with all relevant legislation and best practice guidance at a time of design and implementation.
 - Include automatic monitoring and control system.
 - Connection to manned remote monitoring and control of system including automatic warnings and alarms when a non-normal parameter is detected.
 - Including redundancy in the system design to provide multiple layers of protection.
 - Designing the facility to contain and restrict the spread of fire using fire-resistant materials, and adequate separation between elements of the BESS – The separation distance between the battery containers and Site boundary shall be in accordance NFPA 855 (2023), which has a guidance of 3 m. (NB: These limits may be reduced to 1 m where testing to U L9450A has been undertaken).
 - Offering to work with the local FRS to develop a tactical response that will minimise the risk in the event of fire and mitigate impacts.
 - Production of a dedicated Emergency Response Plan, showing full understanding of hazards, risks, and consequences.
- 6.133. The applicant offers to produce an Emergency Response Plan in consultation with Merseyside Fire and Rescue Service to satisfy an appropriately worded planning condition and to show full understanding of how to manage the hazards, risks, and consequences. The response plan will set out the key steps to be taken by the emergency services and the developer in the event of a fire event to ensure the potential risks are mitigated and environmental impacts avoided.

- 6.134. The Outline Battery Fire Safety Management Plan was prepared in full knowledge of and taking account of considerations relating to methane gas as discussed above.

Decommissioning and Restoration

- 6.135. Following cessation of energy storage / supply at the Site, all equipment will be decommissioned, and all plant and machinery will be removed from the Site. The extant use of the Site will be restored thereafter. Should the Council be minded approving the application, the applicant would be willing to accept the imposition of a planning condition(s) to secure the submission of a detailed decommissioning strategy to detail the removal of the development and restoration of the Site after the lifetime of the development has lapsed. The decommissioning strategy will also detail the trigger point for the decommissioning of the Site.

- 6.136. A suitably worded planning condition may be worded to the effects of:

“Within 6 months of the approved development ceasing to store/supply power, the plant shall be decommissioned, all items structures, hardcore and any underground apparatus or concrete shall be removed from the Site within the red line application Site and the land shall be subsequently rested in accordance with a scheme which shall have previously been submitted to and approved in writing by the Local Planning Authority”.

7. Conclusions

- 7.1. There can be no doubt this application proposal embodies the principle of sustainable development placed at the heart of the planning system.
- 7.2. The application proposal comes forward against the background of a clear recognition at both a national and international level that there is a pressing requirement to take steps to tackle climate change and reduce carbon emissions.
- 7.3. The need for significant standby generation and energy storage facilities such as the one proposed is well documented through local and national planning policy and other material considerations. The Proposed Development will directly support the National Grid and contribute to managing the supply and demand for electricity across the network. There are no technical reasons why the development should not be permitted.
- 7.4. The Proposed Development is essential for the continuation of the National Grid Transmission and Distribution Networks. The locational requirements have justified the requirement to be Sited in the countryside which will provide necessary grid balancing services via an established and available grid connection.
- 7.5. The Applicant has also demonstrated in the Report that the Site is considered to be Grey Belt Land in the Grey Belt Assessment. The proposed development is therefore not considered inappropriate development in the Green Belt.
- 7.6. Notwithstanding the above Grey Belt Assessment, the Applicant has prepared a separate Green Belt Assessment to demonstrate that in the case that the Council disagrees with the Grey Belt Assessment, that Very Special Circumstances have been demonstrated and that the proposal would also be acceptable in the Green Belt.
- 7.7. The applicant has clearly demonstrated that the proposed development is essentially required to secure reductions in greenhouse gas emissions and facilitate the delivery of renewable and low carbon energy both nationally and locally and is required to be located in a Green Belt Location. As identified above in this statement and within the supporting LVA, it has been demonstrated that the development will only result in a minor adverse impact to the openness of the Green Belt and character of the open countryside in this location. This statement has clearly set out that material considerations lend support to the overall case that significant environmental benefits and government support for the proposed development demonstrate very special circumstances which clearly outweigh any harm to the Green Belt in this location. Accordingly, the proposal is shown to comply with the overriding provisions of the Green Belt policies within section 13 of the NPPF and the provisions within the adopted Development Plan.
- 7.8. The design evolution of the proposed development has duly considered the comments raised by Knowsley Council officers and the local community through the pre-application stage to progress the best achievable design which maximises spaces for landscape screening and biodiversity enhancement, whilst also minimising harm to the Green Belt. Throughout the design process the site layout has seen many changes, ultimately the layout of the site was split into two compounds, reducing the quantum of the Proposed Development. In doing this there is significant space left available for drainage, planting and delineation between the open countryside and the Proposed Development.

- 7.9. The Proposed Development has been sensitively designed to respect and conserve local landscape character and visual amenity and includes a substantial landscaping and planting proposals which seeks to both screen the existing substation and Proposed Development from view and deliver significant biodiversity net gains across the Site. When combined with the wider environmental benefits associated with the delivery of BESS infrastructure and significant biodiversity net gains of +16.5 % for habitats and an increase of 3.84 habitat units from a baseline of zero for hedgerows net-gain improvement, and a 100+% increase in watercourse units.
- 7.10. As stated in the Report, the Phase 2 Investigation Report outlines the risk management for the site which identifies the risk posed by the sources present at the site. The Report provides mitigation for the potential risks, and therefore the proposed development is considered acceptable from a contamination standpoint.
- 7.11. Reflecting on the planning balance and turning to sustainable development, it is widely understood in planning that there are three dimensions to sustainable development, these are economic, social and environmental gains. National Policy advises that in order to achieve sustainable development, economic, social and environmental gains should be pursued in mutually supportive ways through the planning system.
- 7.12. The Proposed Development has been shown to achieve the main objectives of sustainable development (environmental, social and economic) without causing undue detriment to any of these matters. As the NPPF at paragraph 14 directs, in circumstances where the application complies with the Development Plan, the application should be approved without delay.
- 7.13. The environmental and technical reports that form part of the planning application submission demonstrate that there would be no unacceptable environmental impacts, and there are a number of added benefits, including habitat creation and biodiversity net-gains. Overall, the proposals are entirely suitable to the Site and its surrounds; broadly consistent with Planning Policy and all relevant material planning considerations; and will achieve a high-quality design as envisaged by the Applicant and as required by the Local Planning Authority.
- 7.14. These factors, when combined with the significant need for flexible energy storage, mean that the planning balance (and, in particular, when considered in the context of the tests under Section 38(6) Planning and Compulsory Purchase Act 2004) is weighted significantly in favour of the Proposed Development.
- 7.15. It is therefore submitted that the application proposal constitutes a scheme which should gain the weight of national energy and planning policy support for such developments and should be approved without delay.



Appendix 1 – Site Location Plan

Town & Country Planning Act 1990 (as amended)
Planning and Compulsory Purchase Act 2004

Bristol

First Floor, South Wing, Equinox North,
Great Park Road, Almondsbury, Bristol, BS32 4QL
T 01454 625945
E Bristol@pegasusgroup.co.uk
Offices throughout the UK.

Expertly Done.

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

Pegasus Group is a trading name of Pegasus Planning Group Limited (07277000) registered in England and Wales.

Registered office: 33 Sheep Street, Cirencester, GL7 1RQ

We are ISO certified 9001, 14001, 45001



[Pegasus_Group](#)



[pegasusgroup](#)



[Pegasus_Group](#)

PEGASUSGROUP.CO.UK