

**Supporting Statement in Support of a Full Planning
Application for:**

Proposed Battery Energy Storage System (BESS)

Land at

**Land at Mitchells Industrial Park,
Bradberry Balk Lane,
Wombwell,
Barnsley,
S73 8HR**

Prepared By

Mercia Power Response



Report Reference: Supporting Statement - Mitchells Industrial Park BESS

18 December 2024

SITE ADDRESS:

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Bradberry Balk Lane,
Wombwell,
Barnsley
S73 8HR

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1 INTRODUCTION

1.1 General

1.1.1 The primary purpose of this Supporting Statement is to demonstrate that the proposed development of the installation and operation of a Battery Energy Storage System (BESS) and ancillary equipment at land at Mitchells Industrial Park, Bradberry Balk Lane, Wombwell, Barnsley, S73 8HR is acceptable in terms of planning policy and should therefore be granted planning permission.

The Applicant

1.1.2 Mercia Power Response Limited (MPR) was formed in 2015 and is a specialist electrical power generation company that contracts to the National Grid. Mercia Power Response aims to develop fast response, local electricity generation able to provide communities with power at times of peak demand or shortfalls in supply. From the Company's headquarters in Nottingham, MPR plans to develop and manage generation capacity in the East Midlands and throughout the UK.

The Landowner

1.1.3 The Site for the proposed development is currently owned by MPR.

Application Structure

1.1.4 The Planning Application Contains the Following Documents:

- Completed Planning Application Forms;
- Completed Ownership Certificates;
- This Supporting Statement assessing the application in accordance with planning policy and containing information in support of the planning application (including design and access)
- Supporting drawings, plans and figures;

1.2 The Proposed Development

1.2.1 The Applicant is proposing to install and operate a Battery Energy Storage System (BESS) at Land at Mitchells Industrial Park, Bradberry Balk Lane, Wombwell, Barnsley, S73 8HR.

1.2.2 The BESS would provide essential infrastructure and stability services for the National Grid by storing and releasing electrical energy for times of high demand or network stress. It will also facilitate the further deployment

of renewable energy within the wider UK electrical generation mix.

1.2.3 In summary, the installation will comprise the following elements:

- 13 no. battery storage units measuring – 8.8 x 1.7 x 2.8
- 7 no. electrical transformers - 1.8 x 1.9 x 1.6
- 1 no. high voltage DNO electrical switchgear compound – 20 x 6.5
- 1 no. high voltage DNO 66kV transformer – 8 x 7 x 4.5
- 1 no. electrical switchroom building – 10.0 x 4.5 x 3.2
- 1 no. welfare/control kiosk – 6.0 x 2.4 x 2.4
- Low level lighting fixed to battery containers, kiosks and the 3 No. CCTV poles – 4.0m height
- Ancillary infrastructure including cabling and trenching, concrete plinths/bases, 2.4m height wire mesh entrance gate and boundary fencing and CCTV.

1.2.4 The above details, taken together, are referred to in this document as the 'proposed development'. Further details are provided in Section 4.

1.3 The Site

1.3.1 The proposed Site is located in Mitchells Industrial Park (Figure 1 – below). The Site comprises temporary cabins and an open fenced hardstanding yard. The Site is currently vacant brownfield industrial land.

1.3.2 The Site is within the administrative area of Barnsley Metropolitan Borough Council. For identification purposes, the application Site is centred approximately on OS Grid Reference SE 39183 04181.

1.3.3 The Site lies centrally in the wider Mitchells Industrial Park. There are industrial units to the North, South, East and West.

1.3.4 The Site is to be accessed using the existing road access off Bradberry Balk Lane.

1.3.5 The Site is relatively flat in topography and lies at an elevation of approximately 39m AOD.

1.3.6 The total application Site area (red line) measures approx. 0.244 ha (2,444m²). The yard surface will be improved where necessary with a clean stone aggregate to form a suitable, free draining, surface for vehicles and the installation of the new equipment.

1.3.7 The nearest residential properties to the application Site are located a distance of 135m from the Site boundary to the west and southwest on

the A633 Barnsley Road. The houses are separated from the application Site by a large industrial unit. To the south the nearest residential buildings are on Barnsley Road, 176m from the Site boundary. There are no residential properties nearby to the north or east of the Site.



Figure 1: Site Aerial Picture (Source – Google Earth Images)

1.4 Planning Application History

1.4.1 Planning applications for the directly adjacent land have been found on the Barnsley Metropolitan Borough Council register.

Table 1: Recent Planning History			
Permission Ref:	Application Decision Date	Application Subject	Decision
2021/1300	03/02/2022	Variation of condition 4 of application 2019/1213 (Installation of a back-up electricity generation facility and ancillary equipment) to allow for change in operating period	Approve with Conditions
2019/1213	04/02/2022	Installation of a back-up electricity generation facility and ancillary equipment.	Approve with Conditions
2006/0047	08/02/2006	Erection of single-storey workshop/store	Approve with Conditions
B/01/0365/WW	11/05/2001	Use of land for the storage of concrete products and erection of fencing	Unknown

2 NEED FOR THE DEVELOPMENT – GOVERNMENT CLEAN POWER 2030 ACTION PLAN

2.1 Introduction

2.1.1 The Government's Clean Power 2030 Action Plan was launched on 13th December 2024. The Action Plan will be a central policy document for facilitating the deployment of renewable and low carbon energy generation and storage schemes across the UK.

2.1.2 The Action Plan will provide the foundation for the UK to build an energy system that can bring down bills for households and businesses for good. This Action Plan sets out how the government will work with the clean power sector, including industry, trade unions, investors, policy makers and others to achieve their clean power goal

The Action Plan aims to decarbonise the UK's electricity system by 2030, ensuring that at least 95% of electricity comes from clean sources like wind, solar, nuclear, and energy storage. It focuses on building more renewable energy infrastructure, upgrading the electricity grid to handle increased demand, and ensuring grid flexibility through technologies like BESS and low-carbon backup power.

The plan also seeks to accelerate investment, improve energy security, reduce reliance on fossil fuels, and support the UK's goal of achieving net-zero emissions by 2050. By doing so, it aims to create a cleaner, more reliable, and affordable energy system for the future.

2.2 Short-term Flexibility

2.2.1 The proposed BESS development aligns with the UK Government's Clean Power 2030 Action Plan, which highlights the critical need for flexible energy storage to support the transition to a low-carbon energy system. As the deployment of renewable energy sources such as wind and solar accelerates, the intermittency of these power generation technologies creates challenges for grid stability and supply security. Battery storage provides a proven solution by enabling the storage of surplus renewable energy during periods of low demand and releasing it when demand is high or generation is low.

2.2.2 The Action Plan identifies a national requirement for 23-27 GW of BESS capacity by 2030 to maintain system flexibility and ensure a reliable, low-carbon energy supply. For the Northern Powergrid electricity region specifically, which covers the proposed development Site, the Action Plan identifies that 1,900MW of BESS capacity is required to be deployed by 20230. This BESS directly contributes to meeting that target by delivering 26MW of short-duration energy storage capacity, supporting the grid's ability to integrate increasing volumes of renewable energy while

maintaining system resilience.

- 2.2.3 It stresses the urgent need to accelerate grid upgrades and deploy enabling infrastructure to support clean power targets. BESS play a pivotal role in this transition by alleviating grid congestion, improving transmission efficiency, and reducing the need for costly upgrades to the electricity network. This development is essential to support the government's goal of achieving a clean power system where at least 95% of electricity generation comes from clean sources by 2030.
- 2.2.4 By delivering critical storage infrastructure, the proposed development helps safeguard energy security, reduce reliance on fossil fuels, and protect consumers from price volatility. In doing so, the development also contributes to broader national objectives, including net-zero emissions by 2050, while supporting local economic growth and the creation of a modern, flexible energy system.

3 NATIONAL PLANNING POLICY

3.1 Introduction

- 3.1.1 This chapter considers the proposed development against the relevant national policies and other material considerations relevant to the proposal.
- 3.1.2 The Town and Country Planning Act 1990 (as amended) requires that applications for planning permission must be determined in accordance with the development plan unless material conditions indicate otherwise.
- 3.1.3 The National Planning Policy Framework 2024 (NPPF) and National Planning Practice Guidance (NPPG) are also material considerations. As is the National Policy Statement (NPS) for Energy (NPS EN-1).

National Planning Policy

- National Planning Policy Framework (NPPF) (2024)
- Overarching National Policy Statement for Energy (EN-1)

3.2 National Planning Policy Framework

- 3.2.1 The National Planning Policy Framework (NPPF) serves as the current national planning policy document in England. Its original publication in March 2012 introduced significant changes to the planning system, replacing numerous Planning Policy Statements. The NPPF has since been updated, including in December 2024, and provides a clear framework for supporting sustainable development. The proposed Battery Energy Storage System (BESS) aligns with the objectives and policies set

out in the NPPF.

- 3.2.2 One of the core principles under the NPPF is the need to support the transition to a low-carbon economy and address the challenges of climate change. The NPPF highlights:

“The planning system should support the transition to net zero by 2050 and take full account of all climate impacts ... and support renewable and low carbon energy and associated infrastructure.” (NPPF, Paragraph 161)

- 3.2.3 The proposed development directly contributes to this national objective by providing vital backup energy storage during periods when energy demand exceeds forecasted levels or during plant unavailability. Such facilities are critical to achieving energy security, facilitating economic growth, and enabling the transition to renewable energy sources in line with the Net Zero by 2050 target.

- 3.2.4 In Paragraph 168, the NPPF provides further guidance on renewable and low carbon energy developments:

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

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

b) recognise that small-scale and community-led projects provide a valuable contribution to cutting greenhouse gas emissions;

c) in the case of applications for the repowering and life-extension of existing renewable sites, give significant weight to the benefits of utilising an established site.”

- 3.2.5 The proposed BESS directly supports these principles by facilitating the storage and management of renewable energy, reducing reliance on fossil fuels, and enabling the delivery of a cleaner and more resilient energy grid. By enhancing energy security and grid stability, the proposed development supports the broader objectives of promoting long-term positive environmental, social, and economic benefits.

- 3.2.6 The NPPF further emphasises the importance of proactive planning to increase the use of renewable and low-carbon energy. Paragraph 165 outlines:

“To help increase the use and supply of renewable and low carbon energy and heat, plans should:

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.”

Assessment

3.2.7 The proposed BESS aligns with this guidance by enabling the efficient storage of renewable energy generated from sources such as wind and solar. The ability to store and release energy during periods of high demand is crucial for optimising renewable generation and ensuring a reliable energy supply.

3.2.8 In addition to environmental benefits, the development provides tangible economic advantages. Employment opportunities will be created during the installation phase, and long-term roles will be supported for ongoing maintenance and operation. This contributes positively to the local economy while supporting sustainable energy infrastructure.

3.2.9 The Site, located within an existing industrial and employment area, has been carefully selected to minimise adverse impacts on the landscape, environment, and local amenity. The development's location ensures it integrates seamlessly into the existing context while delivering nationally significant energy infrastructure in line with the objectives of the NPPF.

3.2.10 In conclusion, the proposed BESS supports the core objectives of the NPPF by enabling the transition to a low-carbon economy, enhancing energy resilience, and delivering economic growth. The development represents sustainable development in accordance with national policy, addressing the urgent challenges of climate change and energy security while aligning with the government's Net Zero commitments.

3.3 Overarching National Policy Statement for Energy (EN-1)

3.3.1 The Overarching National Policy Statement for Energy (EN-1) is a UK government policy document that sets out the need for, and the principles underlying, new energy infrastructure in the UK. EN-1 provides the framework for decision-making on planning applications for major energy infrastructure projects, including those related to electricity generation,

transmission, and storage. It is part of the National Policy Statements (NPS) series, which provide a national framework for making decisions on applications for development consent under the Planning Act 2008.

Battery Storage's Role in Achieving Net Zero

- 3.3.2 The proposed Battery Energy Storage System (BESS) directly aligns with the role of electricity storage as highlighted in the Overarching National Policy Statement for Energy (EN-1). According to Paragraph 3.3.25

"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"

- 3.3.3 The BESS is instrumental in integrating renewable energy sources like wind and solar into the grid by storing surplus electricity during periods of low demand and discharging it during peak times. This capability not only enhances system reliability but also significantly reduces carbon emissions by ensuring that the maximum amount of low carbon energy can be utilized.

Flexibility and Security of Supply

- 3.3.4 EN-1, Paragraph 3.3.6 states that

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

- 3.3.5 The proposed BESS plays a critical role in enhancing the flexibility of the energy system by efficiently managing surplus electricity during times of low demand and supplying it during peak periods. This capability not only prevents waste but also ensures that energy can be available when needed, thereby improving the security of supply. By providing an additional layer of grid stability and reducing the risk of supply shortages, the BESS complements the UK's broader energy strategy towards a secure, low-carbon future.

Cost and Reliability Benefits

- 3.3.6 EN-1 in Paragraph 3.3.26 notes 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."

- 3.3.7 The BESS fulfils this role by providing solutions which can store excess electricity generated during off-peak periods and supply it when demand is high. This reduces the total generation capacity required on the system and helps to avoid costly network upgrades, thereby optimising the use of existing infrastructure. By deferring the need for new infrastructure and improving the efficiency of the grid, the BESS contributes to a more sustainable and resilient energy system.

Maximising Renewable Output

- 3.3.8 EN-1 in Paragraph 3.3.27 highlights the various services that storage can provide, such as

"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"

- 3.3.9 The BESS supports these functions by enabling more efficient management of electricity supply, enhancing grid stability, and helping to defer or avoid the need for expensive network upgrades. By providing a responsive and flexible energy solution, the BESS ensures that the integration of renewables into the grid is both effective and economically viable, contributing to the UK's energy policy goals.

Assessment

- 3.3.10 Following the objectives outlined in EN-1, the proposed BESS development is justified as a necessary infrastructure project. It supports the national policy goal of a low-carbon energy system and enhances the resilience and reliability of the UK's electricity network, contributing to a sustainable and secure energy future.

4 LOCAL PLANNING POLICY

4.1 The Plan for Barnsley Metropolitan Borough Council

- 4.1.1 For the Mitchells Industrial Park BESS project, the development plan is the Barnsley Metropolitan Borough Council Local Plan which covers the period 2019 to 2033.
- 4.1.2 The proposed BESS development aligns with Barnsley's Local Plan policies, particularly those promoting climate change resilience, renewable energy generation, environmental protection, and sustainable

development.

- 4.1.3 The following Policies are considered relevant to the proposed development.

CSP1: Climate Change

- 4.1.4 Policy CSP1 outlines the Council’s commitment to tackling climate change, stating:

“We will take action to adapt to climate change by giving preference to development of previously developed land in sustainable locations, promoting the reduction of greenhouse gas emissions through sustainable design and supporting renewable and low carbon energy developments.”

- 4.1.5 The proposed development is situated on a suitable vacant brownfield site within a well-established industrial area with suitable road access, demonstrating adherence to sustainable land use principles. By providing grid-connected energy storage, the development directly supports the reduction of greenhouse gas emissions through its facilitation of renewable energy generation. The BESS plays a pivotal role in maintaining energy security and grid resilience, supporting both local and national objectives for decarbonisation.

CSP5: Including Renewable Energy in Developments

- 4.1.6 Policy CSP5 encourages renewable and low-carbon energy, stating:

“We will expect all development to incorporate renewable and low carbon energy production where feasible and encourage new developments that produce renewable energy.”

- 4.1.7 The proposed BESS is a grid-connected energy installation, recognised in both national and local policy as an energy generation resource that supports energy security. By storing surplus renewable energy and releasing it during peak demand, the development facilitates the increasing deployment of renewable energy while stabilising the grid. This makes it consistent with CSP5, contributing to Barnsley’s renewable energy targets and overall energy strategy.

CSP6: Development that Produces Renewable Energy

- 4.1.8 Policy CSP6 reinforces the need to support renewable energy projects, noting:

“We will allow development that produces renewable energy as long as there is no significantly harmful impact on the environment and local amenities.”

4.1.9 The proposed BESS has been sensitively designed to minimise impacts on the surrounding environment and amenity. The development will not adversely affect occupiers of nearby residential or industrial properties.

4.1.10 The development integrates effectively with the existing industrial character, with its modest scale and mass ensuring it does not adversely affect the area's visual or functional character. Furthermore, the small amounts of traffic generated can be accommodated within the existing highways network without creating congestion or safety issues.

CSP36: Biodiversity and Geodiversity

4.1.11 Policy CSP36 requires developments to conserve and enhance biodiversity:

“Development will be expected to conserve and enhance the biodiversity and geological features of the borough.”

4.1.12 The BESS incorporates sustainable drainage systems (SuDS) to ensure no increase in surface water runoff, aligning with best practice for flood risk mitigation.

CSP37: Landscape Character

4.1.13 The development is of a scale and design that respects the local landscape character. Its location within a well-established industrial area ensures it integrates seamlessly into the surroundings without adversely affecting views or the area's visual amenity.

CSP40: Pollution Control and Protection

4.1.14 Policy CSP40 ensures developments do not harm air, water, or land quality, stating:

“Development will be expected to demonstrate that it is not likely to result, directly or indirectly, in an increase in pollution.”

4.1.15 The BESS has been designed to include robust measures to control pollution risks, including fire suppression systems, containment for battery units, and sustainable drainage systems to prevent contamination. The development will not adversely affect occupiers of nearby residential or industrial properties. No other significant amenity issues have been identified.

CSP42: Infrastructure and Planning Obligations

4.1.16 The proposed development incorporates suitable infrastructure and design measures, including:

- High-quality design using sustainable and recycled materials where appropriate, ensuring an appropriate layout that integrates

seamlessly with the industrial environment.

- Security measures, such as fencing, CCTV, and lighting systems, to ensure a safe and secure environment, reducing opportunities for crime.
- These measures support the delivery of critical infrastructure in a way that balances safety, sustainability, and environmental responsibility.

4.2 Assessment

- 4.2.1 The proposed BESS is consistent with Barnsley’s Local Plan objectives and critical policies (CSP1, CSP5, CSP6, CSP36, CSP37, CSP40, and CSP42). It provides investment and employment opportunities within a suitable brownfield site, supporting the grid’s energy security and renewable energy integration while minimising environmental and amenity impacts. By incorporating sustainable drainage systems, robust pollution control measures, and high-quality design, the development represents a sustainable and responsible energy infrastructure project.

5 DESIGN AND ACCESS

5.1 Use

- The proposed BESS will principally consist of thirteen electrical battery storage units and associated ancillary equipment. The BESS can be operated remotely and very quickly to respond automatically to the requirements of the National Grid network.
- The equipment will be connected via new electrical connection to the new on-Site high voltage District Network Operator (DNO) electrical substation.
- The equipment will operate for an estimated 25-year period
- Technical personnel will visit the compound regularly to carry out routine maintenance and repairs necessary.

5.2 Amount

- 5.2.1 The proposed development will consist of the following items:

All dimensions in meters, shown L x W x H (Length x Width x Height)

- 13 no. battery storage units measuring – 8.8 x 1.7 x 2.8
- 7 no. electrical transformers - 1.8 x 1.9 x 1.6
- 1 no. high voltage DNO electrical switchgear compound – 20 x 6.5

- 1 no. high voltage DNO 66kV transformer – 8 x 7 x 4.5
- 1 no. electrical switchroom building – 10.0 x 4.5 x 3.2
- 1 no. welfare/control kiosk – 6.0 x 2.4 x 2.4
- Low level lighting fixed to battery containers, kiosks and the 3 No. CCTV poles – 4.0m height
- Ancillary infrastructure including cabling and trenching, concrete plinths/bases, 2.4m height wire mesh entrance gate and boundary fencing and CCTV.

5.3 **Layout**

- The proposed arrangement is shown in plan on drawing MPR-MIBP-001 V4.
- The battery storage units will be an off-white colour. The cabins/kiosks and fencing will be dark green. Transformers will be a grey steel finish. The switchroom, concrete/blockwork separation walls and DNO substation buildings will be light grey rendered or concrete finish.

5.4 **Ground Works**

- 5.4.1 The Site is relatively flat in the proposed development area, with slight variations in topography elsewhere. The site elevations range between approximately 38-39m AOD.
- 5.4.2 The Site will be levelled further as necessary with some sloped areas at the perimeter, securely fenced and surfaced with a clean natural stone aggregate to form a suitable, free draining, surface for vehicles and the installation of the new equipment. This will form a consistent, permeable drainage surface with very similar infiltration levels to the existing site conditions.
- 5.4.3 The items of equipment will be located on reinforced concrete foundation bases/plinths to spread the loads evenly. These will be lightly reinforced concrete slabs and strip foundations extending no more than 1m depth.
- 5.4.4 Shallow excavations will be necessary for the slab foundations and also for various cables and trenches.

5.5 **Fencing, Boundary Treatments and Security**

- 5.5.1 The Site compound will be enclosed by a new secure 2.4m high wire mesh

fencing. Details are provided in drawing MPR-MIBP-007.

5.5.2 The Site will be fitted with up to three 4m high CCTV poles fitted with low light cameras. This will give full coverage of the Site. CCTV will be directed downwards and internally into the Site to minimise disturbances to habitat. Details are provided in drawing MPR-MIBP-008.

5.5.3 In addition to the CCTV cameras, a single public address loudspeaker and various motion detectors will be installed on Site. The CCTV, loudspeaker and motion detectors will be routed to a manned control desk. This system will be able to detect unauthorised access to the Site and allow the control desk to challenge such unauthorised access through the loudspeaker.

5.6 Site Lighting

5.6.1 Low-level lighting will be fitted over the main doors to each of battery storage units and above the other cabins and buildings.

5.6.2 In addition, there will be further halogen lights, on the three 4m high poles providing illumination to the Site entrance and parking areas. The lighting will only be switched on when technical personnel are on Site in darkness hours for out-of-hours 'unplanned' maintenance. Lighting will be directed downwards and internally into the Site to minimise disturbances. Details are provided in drawing MPR-MIBP-008.

5.7 Access and Traffic

5.7.1 Local road access to the Site is from the existing Site entrance directly off of Bradberry Balk Lane straight into Mitchells Industrial Park. This access is suitable for the construction and operation of the Site.

5.7.2 During the construction period there will typically be two HGV movements per day except on days when the battery equipment will be delivered, when there will be approximately 6 HGV movements. It is expected to be 3 days in total when battery equipment will be delivered.

5.7.3 Once operational, vehicle movements will be very low. Movements will be approximately four movements per week of light cars / vans vehicles for delivery of parts /consumables and attendance to Site by technicians. Ample parking for technicians visiting the equipment will be provided for within the Site.

5.7.4 The impact on the local transport network will be minimal. Therefore, no further assessment of traffic impacts is considered to be required.

5.8 Hours of Operation and Construction

5.8.1 Due to the important role the BESS will serve in providing services to stabilise the national electrical grid network, the proposed development

must be available for operations at all times of the day and night. The availability of the BESS will therefore be 24 hours, 7 days per week. The actual operational hours will be dictated by the demands of the electrical grid network requirements.

5.8.2 The overall construction programme will be approximately 6 months, with construction restricted to 07:00 to 18:00 Monday to Friday and 08:00 to 13:00 Saturday and Sunday.

5.9 Employment

5.9.1 During the Site establishment and construction phases of the development, the number of workpeople on the Site will vary between 5 and 20. MPR operates a policy of purchasing all construction materials from local suppliers as well as contracting with local civil engineering companies to undertake the design and construction of the Site.

5.9.2 Whilst there will be no staff permanently based on Site once operational, it is anticipated that this BESS will directly employ up to one technician and one administrator. It is likely that, subject to the availability of suitably experienced personnel, the staff would be recruited from the locality.

5.9.3 The local economy will benefit from the Business Rates payable on the new hereditament.

6 PLANNING CONSIDERATIONS

6.1 Overview

6.1.1 The following information is provided to assist in making a judgement as to whether there are any significant adverse impacts that outweigh the benefits of proposed development.

6.2 Designations

6.2.1 The Site and surrounding location has been assessed in relation to a wide range of designations which include the following:

Table 2: Designations List	
Designation	Comment
Sites of International Conservation Importance (RAMSAR, SAC, SPA, NNR)	No areas have been identified within 5km of the Site
Sites of National Conservation Importance (SSSI, National Nature Reserve)	<ul style="list-style-type: none"> Stairfoot brickworks (SSSI) 1.1 km north west Carlton Main Brickworks (SSSI) 4.5 km north east

Local Nature Reserves	<ul style="list-style-type: none"> • Worsbrough Mill Country Park is 3.2 km to the West • Elsecar Reservoir 4.6km south west • Dearne Valley Park 4km to the north east • A number of RSPB Nature Reserves, the nearest being 2.1 km south east of the Site
Scheduled Monuments	<p>The closest Ancient Monuments to the Site are:</p> <ul style="list-style-type: none"> • Romano-British Settlements in Wombwell Wood 1.9 km west. • Monk Bretton Priory Cluniac and Benedictine Monastery: 2.9km north
Registered Parks and Gardens	No areas have been identified within 5km of the Site
Built Environment Conservation Area	No areas have been identified within 5km of the Site
Listed Buildings	<p>The nearest listed buildings to the Site are:</p> <ul style="list-style-type: none"> • Bradberry Balk Bridge, Balk Lane 220m south • Former Mill Building at Aldham Farm, 550m north • Chapels at Wombwell Cemetery 1km south west
World Heritage Sites	No areas have been identified within 5km of the Site
Areas of Outstanding Natural Beauty	No areas have been identified within 5km of the Site

6.2.2 There is unlikely to be any significant impact on any of these designated features due to the large separation distances and the nature of the proposed development.

6.3 Environmental Considerations

Environmental Impact Assessment

6.3.1 The project falls within a description of the development listed under Schedule 2 of the EIA Regulations 2011. Schedule 2 of the EIA regulations provides a number of thresholds, the proposed development falls within Section 3 '*Energy Industry*'. The proposed development does not exceed the indicative threshold of 0.5 Ha. Therefore, an Environmental Impact Assessment is not considered to be necessary.

Biodiversity, Habitats and Ecology

6.3.2 A review of Defra's Magic Map Application tool (Table 1) shows that the

nearest Nationally important site (SSSI, Stairfoot Brickworks) lies 1.1 km to the north west of the Site.

- 6.3.3 The Site currently comprises a vacant hardstanding area. It is industrial in nature and surrounded by industrial land, buildings and roads. It is considered unlikely to offer significant ecological potential.
- 6.3.4 Given the scale of the proposed development, existing condition of the Site, and the distance between the development boundary and any environmentally designated sites, it is considered that the proposed development will not have significant ecological impacts, and therefore further assessments are not required.

Flood Risk Assessment

- 6.3.5 The EA's flood map for planning indicates that The Site is in Flood Zone 1 with a low probability of flooding and not in an area benefitting from flood defences.
- 6.3.6 The proposed development is classed by the NPPF Technical Guidance as 'Essential Infrastructure'. The type of development is considered 'appropriate' in Flood Zones 1 (and 2).
- 6.3.7 Most of the Site is proposed to be re-surfaced as free-draining clean stone with other areas designated as landscaping/planting.
- 6.3.8 Rainwater will therefore be allowed to infiltrate into the ground thus maintaining similar infiltration rates to the existing Site conditions. No foul drainage system will be required.
- 6.3.9 Items of equipment will be located on concrete plinth foundations which will raise the equipment some 200mm from the new ground surface further reducing any surface water flood risk.
- 6.3.10 In summary, it is unlikely that the proposed development would have an adverse effect on the watercourse of any surrounding rivers, canals or floodplain. It will not impede access to any flood defences or management facilities. There is unlikely to be any concern about cumulative impact in the local area.
- 6.3.11 The additional risk of flooding from the installation of the proposed development is not considered significant. The risk of flooding adversely affecting the proposed development is also not considered significant.

Prevention of Pollution of the Water Courses or the Ground

- 6.3.12 During the construction phases, diesel and oil may be stored on Site in approved double-bunded tanks. This will be kept in proprietary double-

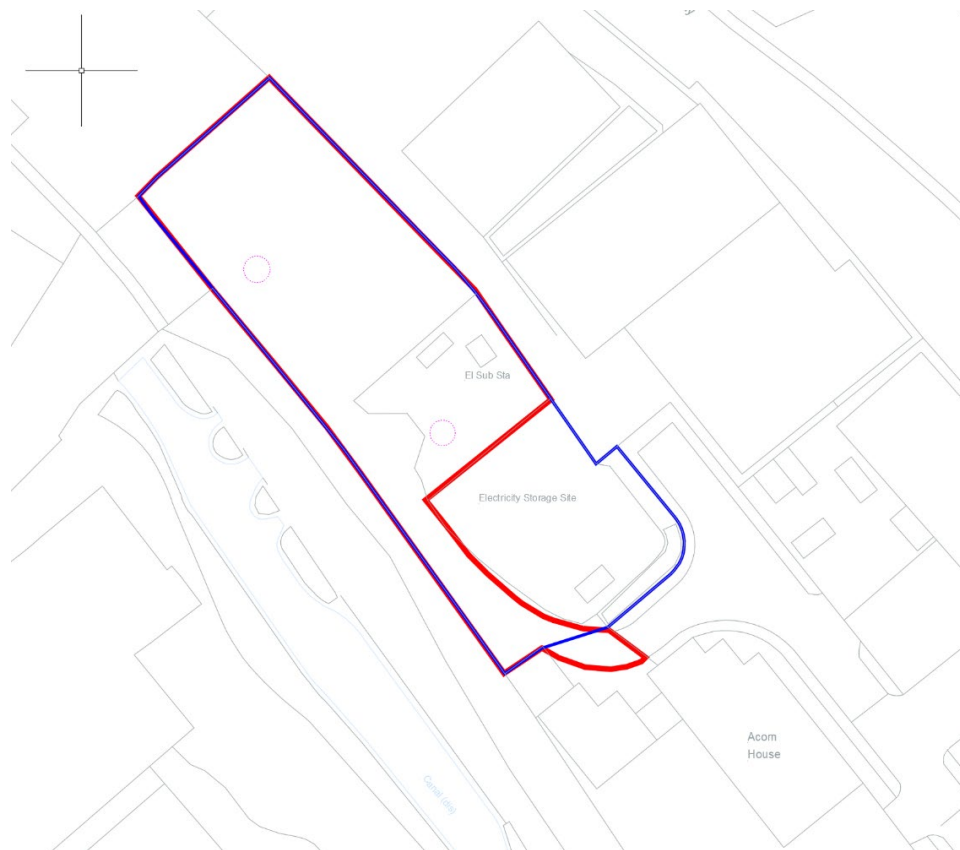
bunded containers with suitable covers.

6.3.13 The bunded containment is to be designed to retain 110% of the maximum volume of stored materials and is to comply with the Control of Pollution (Oil Storage) (England) Regulations 2001.

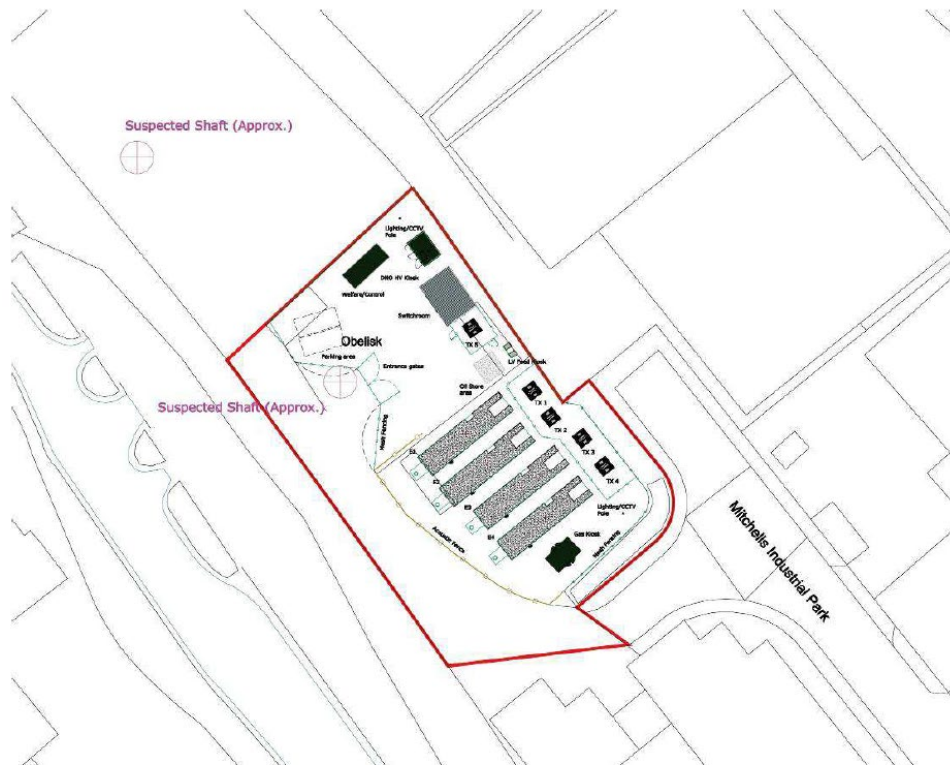
6.3.14 Therefore, none of the proposals will cause pollution of the ground or groundwater.

Coal Mining Risks

6.3.15 Most of the Site is not located within a Development High Risk Area, as defined by the Coal Authority on its interactive map, which is available on the internet. The interactive map records 2 No. abandoned mine shafts within the Industrial Park. One shaft lies within the neighbouring MPR site and the other lies within the proposed development Site boundary, see pictured below.



6.3.16 A Coal Mining Risk Assessment was carried out for the neighbouring MPR site under reference 2019/1213 - Installation of a back-up electricity generation facility and ancillary equipment.



6.3.17 The report concluded:

- No.1 shaft of the former Mitchell Main Colliery lies within the Site and is shown on our drawing 19-2839-01, a copy of which may be found in Appendix A.
- The centre of No.2 shaft lies some 25m from the north-western boundary of the Site, i.e. the Site is outside of the area of influence of that shaft.
- The Coal Authority has informed us that No.1 shaft has been filled and capped to the appropriate standard: which means the very upper part of the shaft should have been filled with concrete and that the cap should be rectangular in nature, formed from reinforced concrete, extending to about 2 x the shaft diameter. As such the cap would normally be expected to be capable of taking normal imposed surface and light traffic loads.
- Before finalising the Site layout, it would be prudent to verify the depth to and the extent of the cap over No.1 Shaft by trial trenching. The Council's consent, as owner of the shafts, should be obtained before any trial trenching is undertaken.
- The proposed site layout, designed by Mercia Power Response, reproduced on our Drawing 19-2839-01 avoids placing any plant and equipment over the cap to No. 1 Shaft.
- Should the developer wish to place any abnormal loads over the shaft cap or to construct any foundations or structures over the cap,

it should first seek the advice of an appropriately experienced Chartered Structural or Civil Engineer and ensure appropriate foundations are designed to distribute the loads to a safe level.

- Overall, in our considered opinion, there is no significant risk, to the proposed development site, posed by the historic coal mining.*
- If, during the site works, signs of coal, made or filled ground, or any other anomaly is encountered, then we (or another suitably qualified and experienced person/firm) should be notified and asked for further advice before proceeding further with the development*
- So, from a coal mining risk assessment point of view, provided the mitigation strategy, set out above, is followed, we consider there is no reason that the proposed development should not go ahead.*

6.3.18 It is proposed that the same mitigation strategy is observed for this neighbouring development. Which avoids placing equipment over the No. 2 shaft. It is only vehicle parking that will be located close to the shaft.

6.4 Amenity and Local Impact Considerations

Air Quality

- 6.4.1 The nature of the BESS means, once operational, there will be no emissions to air from the installed equipment. Any construction phase impacts (e.g. dust or similar) will be short lived and minimised via suitable construction management plan that our contractors will work to.
- 6.4.2 The Site is not located within any Air Quality Management Areas (AQMA).
- 6.4.3 Owing to the nature of the processes taking place and location of the Site further assessment of any air quality impacts is not considered to be necessary.

Landscape and Visual Impact

- 6.4.4 The proposed development is located within an existing area of industrial development off Bradberry Balk Lane. The Site is surrounded by industrial land, buildings and roads.
- 6.4.5 The nearest residential properties to the application Site are located a distance of 135m from the Site boundary to the west and southwest on the A633 Barnsley Road. The houses are separated from the application Site by a large industrial unit
- 6.4.6 Based on this, it is considered that the Site is of low sensitivity to landscape impacts.
- 6.4.7 The small scale of the proposed development, in terms of overall height,

also serves to limit the overall potential for landscape and visual impacts.

- 6.4.8 In light of these factors, the landscape and visual impacts of the proposed development are not considered to be significant. Therefore, further assessment of landscape and visual impacts are not considered to be necessary.

6.5 Other Considerations

Dust and Odour

- 6.5.1 Although unlikely, limited dust and noise could occur during the installation/construction period. The Site is sufficiently distant and screened from residential properties such that these temporary impacts would not be significant.

- 6.5.2 Working hours for construction purposes would be restricted to that considered appropriate by the Council, typically this would be 07:00 to 18:00 Monday to Friday and 08:00 to 13:00 Saturday and Sunday.

Public Rights of Way (PROW)

- 6.5.3 There is a footpath adjacent to the Site (west) and a bridleway that follows a disused railway line to the east of the Site behind some industrial units. It is not considered that users of PROW will be affected by the proposed development.

Archaeology and Cultural Heritage

- 6.5.4 The Site is an area of previously developed industrial land which is considered unlikely to contain archaeological significant items.

- 6.5.5 There are no World Heritage Sites within 5km of the Site; the nearest Scheduled Monument, a Romano-British Settlement in Wombwell Wood is 1.9 km west of the Site. The closest listed building feature is Bradberry Balk Bridge (Grade II), 220m south of the Site.

- 6.5.6 All Site construction works will be of low foundation / excavation depth (max 1m).

- 6.5.7 Based on the small Site area, the nature of the Site and interlying separation distances, it is considered that the proposed development would not affect any archaeological or cultural heritage features, and further assessment is not required.

6.6 Noise Considerations

- 6.6.1 The proposed development involves a battery energy storage system (BESS) that generates a small degree of noise primarily during its

charging and discharging cycles. On average, the system is expected to perform one complete cycle per day, with each cycle taking a maximum of 4 hours.

- 6.6.2 Noise levels from the battery cooling system are most pronounced under full load conditions but typically the batteries operate at around 50% load to optimize efficiency, maintain battery life, and provide all operational options.
- 6.6.3 In terms of the electrical infrastructure, the associated transformer produces a very low noise level, expected to be around 47.0 dBA at a distance of 10 meters from the source. The DNO connection compound does not generate any significant noise.
- 6.6.4 Together, these factors contribute to the minimal impact of the development on the local noise environment, ensuring a low noise profile and minimal disturbance to the surrounding area.

7 SUMMARY

- 7.1.1 This statement supports the application by Mercia Power Response Limited for the works required to install and operate a Battery Energy Storage System (BESS) and ancillary equipment at Land at Mitchells Industrial Park, Bradberry Balk Lane, Wombwell, Barnsley, S73 8HR.
- 7.1.2 The proposed BESS would provide essential infrastructure and stability services for the National Grid by storing and releasing electrical energy for times of high demand or network stress. It will also facilitate the further deployment of renewable energy technologies within the wider UK electrical generation mix.
- 7.1.3 This Supporting Statement confirms that the proposed development is consistent with existing planning policy at a national and local level.
- 7.1.4 All relevant planning policies and other material considerations have been considered and it is concluded the proposed development in the identified location is appropriate and suitable.

APPENDIX A - DRAWINGS

LIST OF DRAWINGS:

Reference	Title	Scale	
MPR-MIBP-001 V4	Proposed Layout Plan	1:500	@ A3
MPR-MIBP-002	Location Plan	1:1250	@ A3
MPR-MIBP-003	Battery Storage Unit Plan	1:100	@ A4
MPR-MIBP-004	Transformer Plan and Elevations		A4
MPR-MIBP-005	Switchroom Plan and Elevations	1:100	@ A4
MPR-MIBP-006	Control Kiosk Plan and Elevations	1:50	@ A3
MPR-MIBP-007	Fencing Plan	1:50	@ A4
MPR-MIBP-008	CCTV and Lighting Plan	1:50	@ A4
MPR-MIBP-009	Electrical Connection Compound	1:200	@ A3
MPR-MIBP-010	Existing Layout Plan	1:500	@ A3
MPR-MIBP-011	Large Transformer Plan	1:50	@ A2
MPR-MIBP-012	Controller Kiosk Plan	1:50	@ A4