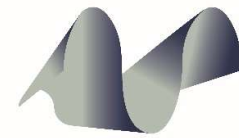


# Alternative Site Search

## Newfields Farm Battery Storage Facility

November 2021



Third Revolution Projects

### 1. Summary

This report describes the process the applicant has used to identify a site for battery energy storage facility, confirm the need to use a green belt site, and assesses the proposed development against related policy and guidance.

Battery storage facilities are a key component of the UK's shift towards the provision of clean renewable energy and are recognised as an important means to achieving the UK's legally binding target of net-zero carbon emissions by 2050 and can also enhance biodiversity within sites.

They provide a means to store and generate energy – capturing from the grid in periods of generation surplus and releasing energy back instantly when energy demand is high. Electrical storage facilities are now recognised by Government *“as a form of electrical generating station for planning purposes.”*

Planning policy is supportive of renewable energy generation and infrastructure developments, including battery storage facilities, and the National Planning Policy Framework (NPPF, 2021) states that:

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

In determining planning applications for renewable and low carbon development, local planning authorities *“should approve the application if its impacts are (or can be made) acceptable.”*

It also seeks to enable *“the development and diversification of agricultural and other land-based rural businesses”*.

Section 3 demonstrates a clear need for renewable energy developments and supporting infrastructure (which includes battery energy storage) to be located where there is capacity to connect to the electricity grid unless material policy reasons indicate otherwise. It has also shown the approach the applicant has taken to identifying capacity across the country. It notes that Government policy presents an unconstrained need for new renewable energy capacity and grid analysis has identified capacity in the immediate vicinity of the Cellarhead Substation, but not elsewhere in the Staffordshire Moorlands area. The applicant has approached landowners within a reasonable study area around the substation.

The chosen site has a willing landowner and is available for development now and therefore is considered *deliverable* and *developable*, as defined in the glossary of the NPPF and using a methodology adapted from established sequential tests. It is of a suitable size to accommodate a viable project, avoids designated areas other than being in the green belt and should be capable of overcoming all physical, environmental, other policy and amenity constraints.

Section 4 assesses the proposed development against policy guidance criteria. This process confirmed a potential site that is considered deliverable and developable at this time – shown in Table 1. This demonstrates the rigorous approach the applicant has taken to confirm that there are no other viable sites in the area that are deliverable and developable.

Section 4 concludes that the proposed development site will only include limited harm to one of the five purposes of the green belt and also sets out the applicant's reasons for why the proposed development meets the criteria for very special circumstances to be applied. These reasons include the UK's urgent need to increase its renewable energy generation capacity, facilitate progress towards net zero carbon targets and address the climate emergency declared by Staffordshire Moorlands District Council. There is a lack of alternative sites within Staffordshire Moorlands for this type of development which is crucial to the nation's future energy security, the proposal will be of good design to minimise its impacts on the green belt, which will be both temporary and reversible once the development reaches the end of its proposed lifetime. The development will result in a net gain of biodiversity in the area, improvements to the local public footpath network (which is currently in a poor state of repair) and will also support farm diversification.

This report describes the rigorous process that the applicant has gone through to identify the site and demonstrates compliance with local and national planning policy and guidance. It provides a clear and compelling case for using this site within the green belt when weighed against the considerable renewable energy, climate change, economic and biodiversity benefits of the project.

## 2. Introduction and Planning Policy

This report has been prepared by Third Revolution Projects on behalf of RE Projects Development Ltd “the applicant” with regard to the proposed development of a battery energy storage facility (BESS) at Newfields Farm, west of Wetley Rocks and north of Werrington. It describes the process the applicant has used to identify the site and assesses the proposed development against land use related policy and guidance.

### 2.1 Energy storage integral to renewable energy systems

*“Electricity storage is a key technology in the transition to a smarter and more flexible energy system and will play an important role in helping to reduce emissions to net-zero by 2050. Technologies such as storage, demand side response and interconnection can provide flexibility to the system, by shifting when and where electricity is generated and shifting when electricity is used.”*

Department for Business, Energy and Industrial Strategy, ‘Proposals regarding the planning system for electricity storage’, July 2020.

BESS are a key component of the low-carbon energy infrastructure required to achieve net zero carbon emissions and to tackle climate change. They provide a means to store and generate energy – capturing from the grid in periods of generation surplus and releasing energy back instantly when energy demand is high. Hence, Government defines batteries as generation and they are an integral part of renewable energy infrastructure, such as wind and solar, which by their nature fluctuate energy generation according to weather, time of day and seasonal variation.

BESS therefore provide a reservoir of electrical power in order to balance the supply of energy from a renewable-based energy source. They both store and release energy back into the grid as needed.

System frequency varies due to variable renewable generation and there is a need to use BESS to balance real-time system demand and supply (generation). Too much demand, or too much generation, can lead to blackouts and brownouts.

The proposal will support the Government’s and Staffordshire Moorlands’ transition to a low carbon economy. As the UK moves from a centralised, fossil fuel energy system, to localised renewable energy supplies, the adoption of large-scale renewable energy brings new challenges for the National Grid and regional distribution network operators to manage such volumes of variable generation. Renewable energy capacity cannot deliver full power at any one time, energy storage facilities such as batteries provide an integral component of a low carbon energy infrastructure.

### 2.2 UK Energy Strategy and electrical storage

The land-use planning system through development plan policies and development decisions have a critical role to play in delivering net zero and the 6<sup>th</sup> Carbon Budget.

It is noted that Staffordshire Moorlands District Council declared a Climate Emergency in July 2019. Energy storage will play a key role in reducing carbon emissions in line with this declaration.

### 2.3 National Grid

The National Grid’s (as UK electricity system operator) Future Energy Scenarios Report 2021 sets out the importance of stored electrical energy and battery storage systems in balancing the grid, accommodating power generation fluctuations in renewable energy sources (such as sun and wind), and providing lower energy prices when needed and in the right place.

The National Grid scenario report forecasts that battery storage capacity in Great Britain (GB) is likely to heavily increase as move towards operating a zero carbon energy system, as part of a portfolio of new infrastructure.

## 2.4 The importance of electricity storage in planning

Recognising the importance of electrical storage in moving to net-zero carbon by 2050 (required by the Climate Change Act 2008), and the interim target of 78% reduction in emissions by 2035 (required by the 6<sup>th</sup> Carbon Budget), the Government have recently introduced legislative changes to encourage larger and more effective BESS to be processed by local planning authorities (LPA). Previously proposals for electrical storage above 50MW were subject to approval through the National Significant Infrastructure Projects (NSIP) procedure. Since December 2020 however, such proposals are now to be assessed by LPAs.

In doing so, the Government recognised that *“the planning impacts of the types of storage being deployed (predominantly batteries), are much lower than other forms of generation”*

The Infrastructure Planning (Electricity Storage Facilities) Order 2020 came into force within the Planning Act 2008 to provide support for new, larger electricity storage proposals to be delivered through the local planning consent process. New planning practice guidance to include reference to electricity storage is to be issued shortly. As such, electrical storage facilities are now recognised by Government *“as a form of electrical generating station for planning purposes.”*

Planning policy is supportive of renewable energy generation and infrastructure developments, and the NPPF states that:

*“The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to **radical reductions in greenhouse gas emissions**, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and **support renewable and low carbon energy and associated infrastructure.**” (para. 152)*

Paragraph 158 goes on to say *“When determining planning applications for renewable and low carbon development, local planning authorities should:*

*a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and*

*b) approve the application if its impacts are (or can be made) acceptable...”*

However, the NPPF also seeks to protect green belt land from inappropriate development:

*“Inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances.*

*“When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. ‘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.” (paras 147 and 148)*

The NPPF acknowledges that elements of many renewable energy projects will comprise inappropriate development if proposed on green belt land, unless “very special circumstances” can be demonstrated, and such very special circumstances may *“include the wider environmental benefits associated with increased production of energy from renewable sources”*.

The NPPF also encourages “*the development and diversification of agricultural and other land-based rural businesses*” (para. 84b), and for decisions to contribute to and enhance the natural and local environment.

This report sets out the environmental benefits that will result from the use of the proposed site and how the proposed site is the most viable for this type of development.

### 3. Identifying the Study Area and Sites

This section describes the applicant’s approach to identifying potential areas of the country and sites for development.

#### 3.1 Overarching national need

The need for this type of development has been described in Section 2. Although the NPPF is clear at paragraph 158 that developers are not required to demonstrate need (and therefore there is an unconstrained need for new capacity), it is useful to describe the increasingly urgent need for the proposed development in the context of the climate emergency declared by the Government and Staffordshire Moorlands District Council, and the transition away from fossil fuels to a renewable energy system.

#### 3.2 Need for development in this location

While planning policy is clear that there is a need for all forms of renewable energy and supporting infrastructure, such developments cannot be sited anywhere. Suitable locations must meet certain technical and commercial criteria. The process the applicant has been through to identify development locations and then to identify specific sites in which to site a BESS facility is described in Section 3.4.

Demonstrating specific local need is not straightforward as the National Grid is responsible for balancing electricity supply and demand, on a national and local basis. It does this by prescribing requirements for power capacity (megawatts of generation) and services (e.g. provision of capacity at peak times, balancing and frequency response). This is becoming more challenging as the traditional large, centralised power stations become unviable and the Government’s policy is to close all coal-fired power stations by 2024.

The UK’s centralised electricity system is being replaced, with Government support, by a decentralised system powered by renewable energy, such as solar and wind, supported by small flexible demand responsive facilities, such as BESS and gas peaking plants. Apart from the largest power stations, which connect directly to the transmission network, most projects connect to the distribution network.

The electricity network was never designed for this form of generation and as a result, large parts of the network do not have the capacity to accommodate new connections. Therefore, project locations are determined more by available grid connection capacity than by locally specified need. Due to the unconstrained national need, it is reasonable to assume that all substations and circuits with capacity should be expected to accommodate some form of generation (including storage) unless material policy reasons indicate otherwise.

Cellarhead is the only Super Grid Transformer substation in the Staffordshire Moorlands which can support connections to BESS facilities of the scale proposed.

This position is strongly backed up by analysis undertaken by Pelagic Energy in support of application **P21/03995/F**, a BESS facility in South Gloucestershire adjacent to the Iron Acton substation that was approved in July 2021. In the Planning Statement accompanying the application, Pelagic's analysis showed that of the National Grid network of 298 Super Grid Transformer substations across the UK, only 168 currently have capacity to accommodate a battery storage facility of the size proposed.

Based on National Grid's own forecasts of likely increases in demand for battery storage, as set out in the scenarios described in section 2.3 **Error! Reference source not found.**, Pelagic estimate that between 72-205 new sites would be required by 2030 and 394-734 new sites would be required by 2050. Pelagic concluded that:

*"Even if all the existing Super Grid Transformer Substation sites with capacity were utilised, there would still be a considerable shortage of suitable sites required for storage facilities."*

### 3.3 Identifying the study area

The previous section established that each local substation or circuit should be considered for whether it can accommodate some form of generating, storage or balancing facility. Therefore, grid capacity maps are first consulted to determine those that may be suitable.

There are 6 Distribution Network Operators (DNO) operating 12 territories in England and Wales. The applicant's process involves consulting the data released by relevant DNOs and finding suitable sites with both capacity and a viable connection to the grid. Once a territory has been identified, the publicly available information relating to the grid is consulted. The Cellarhead substation (see Figure 1) was identified as having some capacity to connect generation and balancing projects.

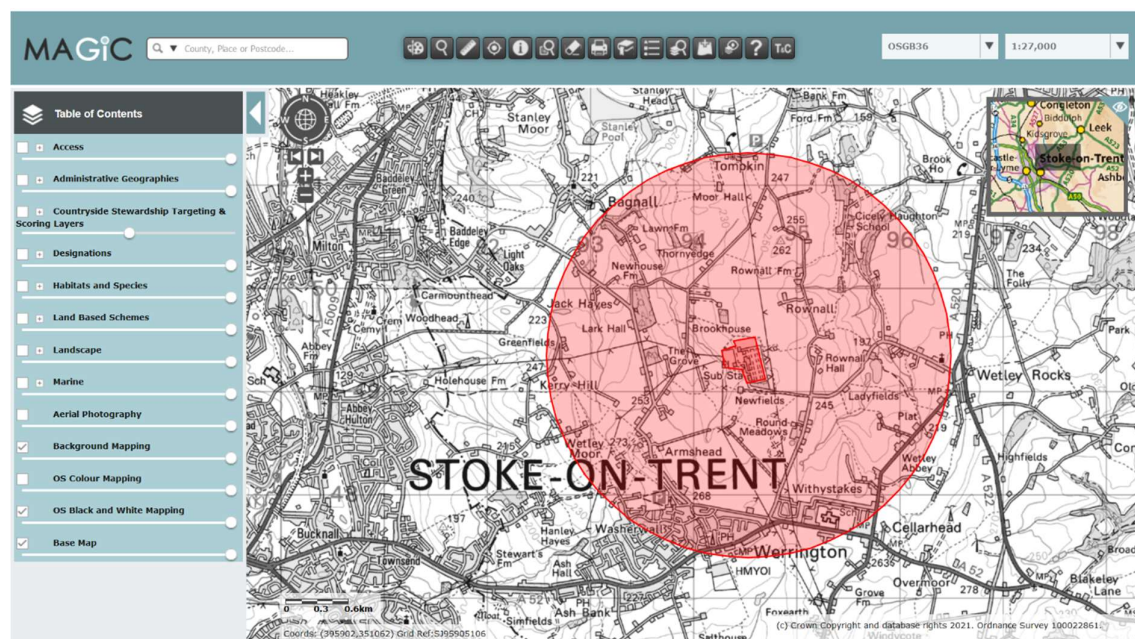


Figure 1: Location of Cellarhead substation (red) and study area within Staffordshire Moorlands (Source: Magic Maps)

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. For example, laying a cable across a field directly to a connection is significantly more viable than if it must cross a river, road, railway or pass through a settlement, and does not require additional rights to be secured. This is discussed further below.

In practice, a connection to a generation or storage development will need to run underground to the substation itself, with the viability of the connection (due to costs) declining as distance increases (estimates of such costs are c.£5,000 per linear metre, or around £2.5m 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 (as shown in Figure 1).

### 3.4 Approach to identifying suitable sites within the study area

The applicant has adopted a sequential approach to identifying sites within the study area. This is not a requirement of planning policy but has been used to demonstrate the rigorous approach taken by the applicant. It also means there is no methodology available in the NPPF that can be directly applied to energy developments and so the applicant has drawn on the sequential approaches used to identify housing sites and for avoiding sites at risk of flooding. The terms *deliverable* and *developable*, as defined in the glossary of the NPPF, have therefore been adapted for use as the basis for identifying suitable sites.

To be considered deliverable, sites should be:

- Available now; and
- Offer a suitable location for development now.

To be considered developable:

- Sites should be in a suitable location;
- There should be a reasonable prospect that the site is available; and
- Could be viably developed at the point envisaged.

The applicant considers a site to be suitable by applying the following criteria:

- Minimum site area of approximately 1 hectare. For the available grid connection, sites could not be significantly smaller than this as there will be insufficient space to accommodate a 100MW BESS facility without making the project unviable on a cost per megawatt basis.
- Avoid key designations (see Figure 6):
  - Ancient Woodland
  - National, European and International environmental designations: Areas of Outstanding Natural Beauty, Biospheric/Biogenetic Reserves, Environmental Sensitive Areas, RAMSAR sites, Sites of Special Scientific Interest, National Parks, Special Area of Conservations and Special Protection Areas
  - Heritage Coast
  - Country Parks
  - Historic Battlefields
  - National Heritage Future Zones
  - Nature Reserves
  - Registered Park or Gardens
  - Royal Society for the Protection of Birds areas
  - Scheduled Monuments

- Flood zones 2 and 3
- Be able to overcome physical, environmental and policy constraints, including planning policy or other designations and on-site or connection route infrastructure or features (such as trees, pylons, railway lines and buildings).
- Be able to overcome amenity constraints, such as noise and visual impacts.
- The anticipated cost of connection. The costs to connect to the grid increases almost exponentially as the connection voltage increases.
- Rent levels payable to the landowner can vary considerably.

In summary, this section has demonstrated a clear need for renewable energy installations (including BESS facilities) to be located where there is capacity to connect to the electricity grid. It has also shown the approach the applicant has taken to identifying capacity across the country. Government policy presents an unconstrained need for new renewable energy infrastructure capacity and grid analysis has identified capacity for renewables development around the Cellarhead substation.

## 4. Policy Analysis

Planning policy is supportive of renewable energy developments, including BESS facilities. However, the site is in the green belt, within which there is a presumption against development unless material considerations indicate otherwise. In the context of need, described earlier, the remainder of this assessment demonstrates:

- That there are no viable brownfield or strategic sites in the area.
- That only sites within the green belt are viable for a development connecting to the Cellarhead substation.

### 4.1 The proposed use of green belt land is necessary

Figure 2 shows the site search area in relation to the boundaries of the Stoke on Trent Green Belt. Although it can be seen that there is a small proportion of the land within the 2km search radius of the substation that falls outside the green belt, this land does not offer any viable sites due to it being the built up residential area of Werrington. The remainder of land within the search area is all within the green belt and therefore offers no sequentially preferable alternative.

Therefore, the use of green belt land is necessary for the development of a battery storage facility in this area.

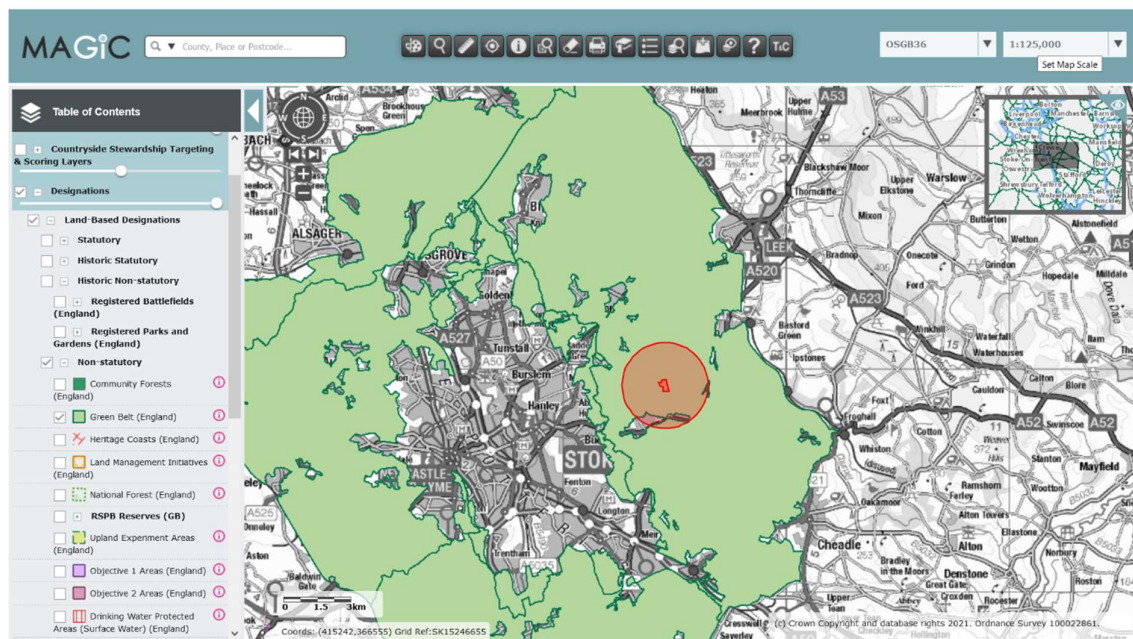


Figure 2: Cellarhead substation (red) within the Stoke on Trent Green Belt (Source: Magic Maps)

#### 4.2 There are no viable brownfield or strategic sites available

A search of Staffordshire Moorlands District Council's brownfield sites register was conducted to identify any possible brownfield sites in the study area. This found that the majority of brownfield sites in the district are concentrated in the areas of Leek and Cheadle, with just 2 sites in the vicinity of the Cellarhead substation. Figure 3 shows a map of the localised search results and shows that neither of the brownfield sites in the immediate area would not be viable, as proximity to the existing substation at Cellarhead is crucial to establishing a viable connection.

Site **WE088** at Ash Hall Nursing Home, Ash Bank Road, Werrington (nearest postcode ST2 9EF) is approximately 2.5km from the substation and is further constrained by its location in the residential area of Werrington and the need for a connection to cross Armshead Road. Planning permission for a conversion to residential dwellings was granted in November 2018 (ref SMD/2018/0288), so won't come forward for an energy development.

Site **BE070** at High Lane, Brown Edge (nearest postcode ST6 8QA) is approximately 5.5km from the substation, making the cost of a connection unviable. The site is also in the residential area of Brown Edge.

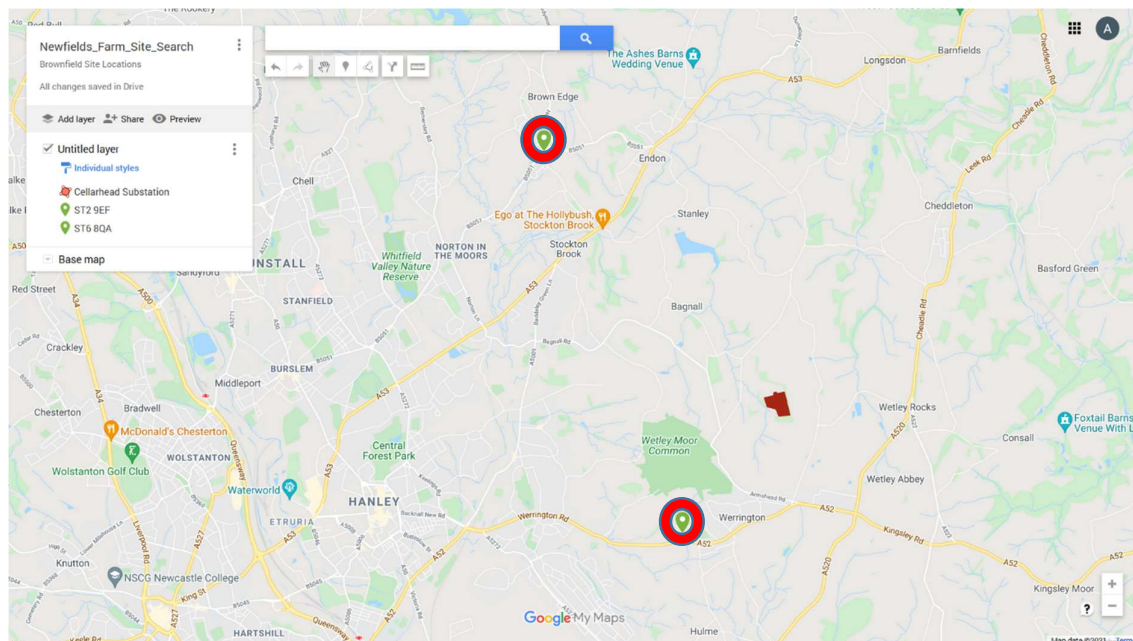


Figure 3: Brownfield sites (green points in red rings) in the vicinity of Cellarhead substation (red) (Source: Google Maps)

In terms of strategic and commercial sites within the Staffordshire Moorlands area that could potentially be used for a battery storage development, a brief search has shown that all available sites are inappropriate for this type of development or are too distant from the substation for a connection to be financially viable. Sites included the 3 lots at the Blythe Business Park, Sandon Road, Cresswell, Stoke-on-Trent, Staffordshire (ST11 9RD), which is approximately 10.5km away from the substation.

#### 4.3 Choice of land within the study area

Any potential sites within the study area must be deliverable and developable, as defined in Sections 3.3 and 3.4, taking into account statutory and non-statutory designations. Key designations (not including the Green Belt) are shown in Figure 6.

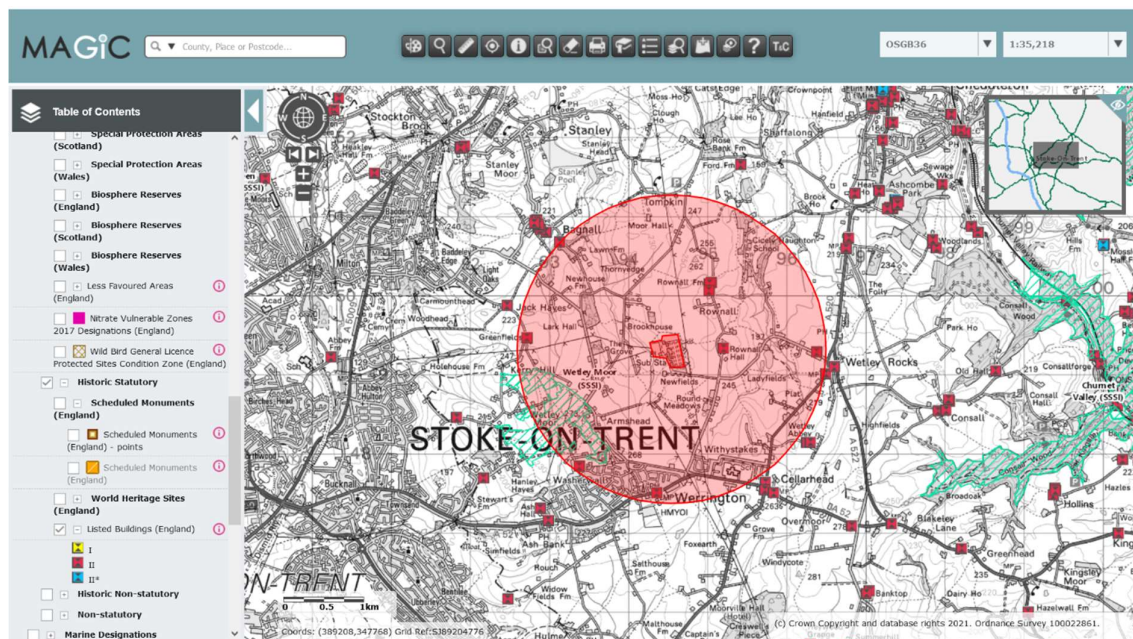


Figure 6: Image showing the key designations within the study area (Source: MAGIC Maps)

It can be seen that the search area incorporates part of the Wetley Moor SSSI area, with a further three somewhat further away:

- Combes Valley SSSI – approximately 5.6km to the east of the substation;
- Chumet Valley SSSI – approximately 3.8km to the south east at its closest point; and
- Hulme Quarry SSSI – approximately 4.6km to the south.

There are no Scheduled Monuments or Historic Battlefields in the search area, but there are multiple Grade II Listed Buildings within and around the search area, as shown in more detail in Figure 7.

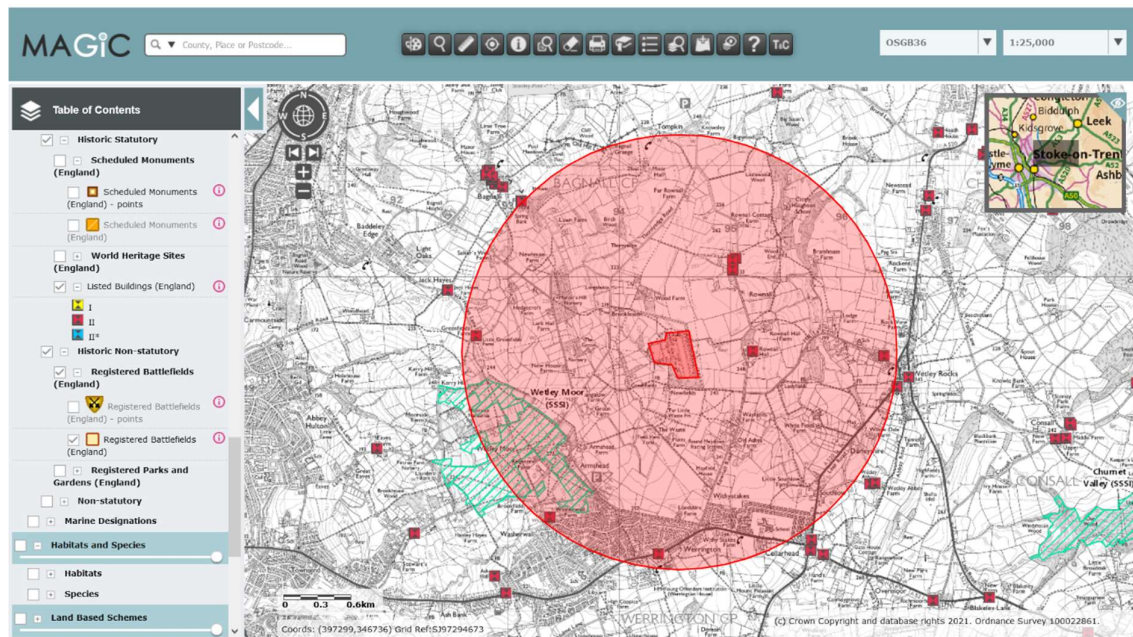


Figure 7: Zoomed in Image showing key designations within the study area (Source: MAGIC Maps)

Within the study area shown in Figure 1, the applicant has worked with land agents to identify and contact landowners of potentially suitable and viable sites to assess whether they would be available for the development of a battery storage facility. This process confirmed that a potential site could be deliverable and developable – this is shown in Figure 8 highlighted in red.

Once the land had been identified, the applicant undertook a more intensive feasibility assessment which included the following criteria:

- Areas with the fewest landscape and visual impacts.
- Areas with the fewest heritage and archaeological constraints.
- Areas with the lowest agricultural land quality.
- Areas that are available from the landowners.

The site was assessed based on a traffic light system and can be seen in Table 1:

- **Green** – criteria does not represent a significant constraint to development.
- **Amber** – a potential sensitivity requiring further investigation.
- **Red** – a clear sensitivity/constraint to development.

The site was considered potentially suitable against all criteria. It has a willing landowner, is available for development now and therefore considered deliverable and developable, as defined by the NPPF-based methodology described above. It is of a suitable size to accommodate a viable project, avoid all key designations other than being in the green belt, and should be able to overcome all physical, environmental, policy and amenity constraints.

It is noted that there is considerable current interest in the area for renewable energy developments, and the other proposals that have been submitted for EIA screening opinions are shown in Figure 8 in yellow.

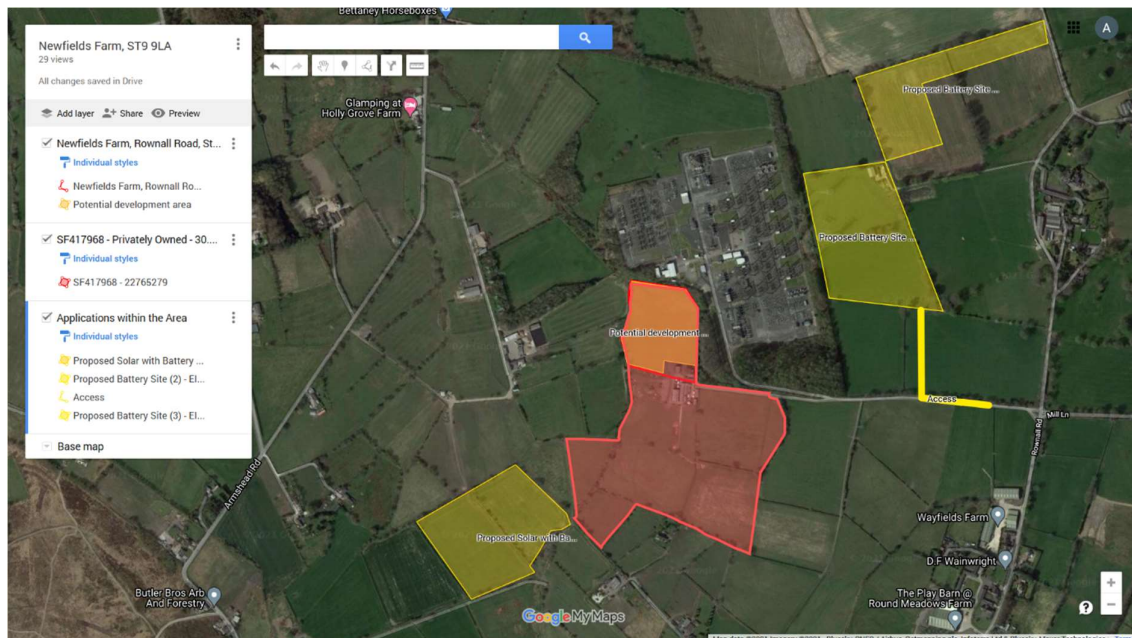


Figure 8: Alternative landholdings available within the study area. (Source Google My Maps)

Table 1 - Assessment of site viability

| Site Reference | Landscape and Visual                                                                                                                                                                                                                 | Heritage                                                                 | Archaeology                                 | ALC                                                      | Availability from landowner | Overall Assessment                      |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------|-----------------------------|-----------------------------------------|
| Area 1         | Site is visually fairly well-contained field which would be suitable, subject to detailed assessment. Public Rights of Way at northern, eastern and southern boundaries of site area. Residential receptors (Newfields Farm) nearby. | Generally suitable. Listed buildings nearby are unlikely to be affected. | No designated assets within close proximity | Defra ALC maps indicate land likely to be mostly grade 4 | Available                   | Potentially deliverable and developable |

#### 4.4 Very special circumstances

Paragraph 147 of National Planning Policy Framework July 2021 (NPPF) states that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. The policies in the NPPF set out those types of development that are appropriate (i.e. not inappropriate) in the Green Belt (paragraphs 149 and 150). The Proposed Development is inappropriate development in the Green Belt and very special circumstances needs to be demonstrated that show the harms caused by the development clearly outweigh by the benefits.

A comprehensive assessment will be undertaken of the development site with regard to the five purposes of the Green Belt, as prescribed under paragraph 138 of the NPPF, which are:

1. to check the unrestricted sprawl of large built-up areas;
2. to prevent neighbouring towns merging into one another;
3. to assist in safeguarding the countryside from encroachment;
4. to preserve the setting and special character of historic towns; and
5. to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.”

Our preliminary investigations suggest that the site does not contribute to purposes 1, 2 and 4 and there would be limited harm to purpose 3, while having no direct impact regarding purpose 5. However, the size and nature of the development mean that the strategic function of the Green Belt would not be compromised.

The development proposal will also give consideration to the ‘other harms’ it may cause regarding heritage, biodiversity, agricultural land, farm diversification, amenity, flood risk, traffic and access and put forward appropriate mitigation measures. Landscape and visual impacts will also be assessed in relation to landscape character and visual receptors.

The applicant acknowledges that very special circumstances need to exist for inappropriate development to be approved in the Green Belt, and will put forward a detailed case for very special circumstances based on the proposal delivering the following benefits:

**Urgent need for renewable energy generation** – while the proposal itself does not provide for energy generation, grid balancing facilities such as battery storage are crucial in maintaining energy supply to the National Grid at peak times, especially during periods when renewable sources may be unable to meet demand. The development therefore supports an increased supply from renewables, as cited in the successful appeal in 2017 by Grid Battery Storage Limited against the decision of Hart District Council<sup>1</sup>, where the inspector gave *“significant weight to the purpose of the development”*, noting that *“planning should support the transition to a low carbon future in a changing climate, and that decisions should recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions.”* Their ability to provide instantaneous power means they play a different function to gas peaking plants (which take time to start generating) and, in the context of net zero a more important one since they are not reliant on fossil fuels.

There is a growing number of successful planning applications for BESS developments in Green Belts, demonstrating that local planning authorities are increasingly recognising the importance of renewable energy development and are affording it significant weight in the assessment of whether such developments meet the criteria for very special circumstances.

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<sup>1</sup> Appeal Ref: APP/N1730/W/17/3167123

**Net Zero and the climate emergency** – in July 2019 Staffordshire Moorlands District Council declared a climate emergency, making a commitment to:

*“Start working with partners, across the district and region, towards making the Staffordshire Moorlands carbon neutral by 2030; taking into account emissions from both production and consumption”.*

With battery storage facilities being a crucial factor in supporting the UK’s transition to renewable energy generation, the proposed development would make a valuable contribution to achieving legally binding net zero emission targets on a national and local level and meeting the aims of the Climate Emergency Strategy.

**Energy security** – the proposed development supports the maximisation of renewable energy production whilst providing security of supply in accordance with Government Policy in reducing reliance on fossil fuel generation, thereby avoiding adverse environmental and climate effects.

**Public Rights of Way Improvements** – the proposed development will deliver improvements to the local public footpath network, access to which is currently in a poor state of repair, see photos below. This will support the local authority’s management of the Green Belt as set out in paragraph 145 of the NPPF, through improved access, and enhancing the existing landscape.



**Biodiversity net gain** – the proposed development will deliver a number of biodiversity benefits, as shown in the draft Mitigation and Enhancement Plan. The biodiversity of the site will be enhanced, primarily through new habitat creation via planting, including native broadleaf woodland and scrub, native scrub (including native hedgerows), tussocky grassland with wildflowers and the relaxation of management regimes of hedgerows to allow existing habitats to mature.

**Best available technology** – the proposed development comprises the latest available battery storage technology, and the facility would be utilised to reinforce power generation from renewable sources, storing energy at times of low demand and releasing to the grid in periods of higher demand or when wind speeds or solar irradiance are lower, providing balancing services to maintain National Grid stability.

**Good design** - the design of the proposed development will be a key consideration in the layout of the site to minimise harm and provide significant benefits to the development as a whole. A full Design and Access Statement will be submitted.

**Lack of alternative sites** – due to the requirement for a connection to the National Grid, there are no alternative sites which are suitable and available for the proposed development. This has been demonstrated in this Site Search.

**Temporary and reversible impacts** – the development is proposed for a lifetime of up to 40 operational years. After this period the storage facility would be decommissioned and all battery storage containers and built structures associated with the proposed development would be removed and the site would revert solely to agricultural use. It is therefore considered that the proposed development is considered a temporary and fully reversible development.

Construction traffic associated with the Proposed Development will be limited to the construction period of 10-12 weeks and will not have a material effect on the safety or operation of the local highway network.

**Farm diversification** – the additional income generated by the proposed development will help to secure the farming business, which is located in a Disadvantaged Area under the Less Favoured Areas classification. Renewable energy is an important form of farm diversification, recognised by the National Farmers Union (NFU) as an important step towards making British agriculture carbon neutral within two decades.