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For and on behalf of
Anglo ES Levedale Ltd
c/o Anglo Renewables Ltd

Planning, Design and Access Statement

Land on the southwest side of Levedale Road, Penkridge, Staffordshire, ST18 9AH

Prepared by
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London

December 2022

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1.0 INTRODUCTION

1.1 This Planning, Design and Access Statement has been prepared by DLP Planning Ltd. ("the Agent"), on behalf of Anglo ES Levedale Ltd ("the Applicant"), a wholly owned subsidiary of Anglo Renewables formed purposely to promote this development, in support of a submission of a Full Planning Application seeking planning permission for a Battery Energy Storage Site (BESS) scheme on land to the southwest side of Levedale Road, Penkridge, ST18 9AH ("the Site").

1.2 As the Site lies some distance from the public highway it can be located with reference to What Three Words: splice.nothing.lamenting). The Site lies wholly within the administrative area of South Staffordshire Council ("SSC").

1.3 The proposed development is described as follows:

> *Full planning application for the construction and operation of a battery energy storage facility and substation with associated fencing and landscaping.*

The Applicant

1.4 Anglo Renewables Ltd are a leading independent developer of energy projects (for both solar and battery storage) who are working at the forefront of the UK's transition to a greener low carbon economy through identifying and developing sites across the country which supports the country's legislated target of reaching Net Zero by 2050 and the global movement to tackle climate change.

1.5 The proposed battery storage facility would provide rapid-response electrical back-up to the National Grid, providing a flexible system to balance energy supply and demand to aid in contributing to the UK's progress in meeting its renewable energy target, and its local targets, a key objective in current Government policy and in particular the National Planning Policy Framework ("the Framework").

1.6 Battery storage, by providing a real-time "balancing service[1]" to the national grid, plays a critical role in enabling the country to meet its Net Zero obligation by capturing surplus electricity during periods of low demand and releasing it during times when demand exceeds

[1] National Grid (2022) "Balancing Services" Available at https://www.nationalgrideso.com/balancing-services (Accessed 10th March 2022).

generating capacity. It helps ease the increasing risk of fluctuations in generation resulting from an ever-greater use of intermittent renewable energy sources[2]. It is a benefit not only for the environment but also for society:

> *How we operate Great Britain's grid is changing, with record levels of renewable sources generating our power. Storage can help us make the most of this green energy, using it to manage peaks and troughs in demand and operate the electricity system as efficiently as possible - keeping costs down for consumers too.*[3]

1.7 The purpose of this document is to provide background on the need for energy storage as part of the delivery of renewable energy within the UK, information regarding the Site and the surrounding context which are all material to the consideration of this proposal.

1.8 This document will also set the proposed development within the planning policy context and provide a comprehensive analysis as to why the application proposals have been submitted in their current form and why they should be considered acceptable in both planning and design terms.

Scope and Structure of the Application

1.9 This Planning, Design and Access Statement has been structured into ten main sections. Following this introduction, the document is set out as follows:

- Section 2 – The Site and its Surroundings
- Section 3 – Background to the Proposals
- Section 4 – Proposed Development
- Section 5 – Battery Storage
- Section 6 – National Energy Policy and Strategy Context
- Section 7 – Planning Policy Context
- Section 8 – Planning Assessment
- Section 9 – Conclusion

[2] Houses of Parliament: Parliamentary Office of Science and Technology (2014) "Intermittent Electricity Generation" *Post Note Number 464.*
[3] O'Neill, K. (2020) "Battery projects could triple in Britain as government lifts barriers". Available at: https://www.current-news.co.uk/news/battery-projects-could-triple-in-britain-as-government-lifts-barriers (Accessed 10th May 2022).

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2.0 THE SITE AND ITS SURROUNDINGS

The Site Context

2.1 The Site is around 0.5km south of Levedale Village and 4.0km north-west of Penkridge. There are a number of scattered residential properties and farms mainly along Levedale Road and also in the wider vicinity to the north and south-west. Overall, the area is largely rural in character and characterised by open fields in agricultural use.

2.2 The Site proposed lies some 200m south of Levedale Road, is broadly triangular in shape and has strong hedge and tree boundaries to the north and southwest. Its third boundary to the east is presently open to the adjoining fields. Its current use is for arable cultivation.

2.3 Overall, due to the context of the Site and its existing boundaries especially to the north, any development would not be easily visible from the public domain other than at a distance of some 200m from Levedale Road from which it is well screened by both a roadside hedge and the field boundary. There is a track to the west of the Site which runs from Levedale Road into the open countryside. This track is not a right of way but in any event is very well screened. Notwithstanding the degree of existing natural containment, the development proposes additional landscape screening in the form of reinforced and additional planting along the existing field boundaries. As legacy planting, this will be a long-term material benefit.

2.4 The Environment Agency's online mapping records show that the Site is located within Flood Zone 1, therefore it is considered to be at low risk of flooding.

2.5 The nearest heritage asset is Field House Farmhouse in Levedale which is significantly over 800m to the northwest of the Site. There is no intervisibility with the Site due to intervening development.

3.0 BACKGROUND TO THE PROPOSALS

Planning History

3.1 The Site and its immediate vicinity have no planning history.

3.2 The Applicant is aware of proposals emerging for a solar farm to the east subject to Screening Request 22/00198/EIASCR. This application determined that an EIA was not required in respect of a scheme comprising 62ha of solar development.

Pre-application Advice

3.3 On 16th August 2022, pre-application advice was sought for the installation of a battery storage scheme for the Site under application reference 22/00098/PREAPP. A pre-application advice meeting was held on 22nd September 2022. Written pre-application advice was subsequently received included within the meeting minutes.

3.4 In terms of the principle of development, officers noted that planning policy is supportive of renewable energy generation and its associated infrastructure, such as battery storage. Paragraph 152 of the NPPF requires the planning system to support the transition to a low carbon future and contribute to radical reductions in greenhouse gas emissions. Officers advised research into the 2020 Staffordshire Climate Study for the local perspective and context.

3.5 Officers commented on the landscape and visual impact of the proposals, noting the nearest Public Rights of Way (PRoWs) to the south and to the northwest of the Site. Officers noted the terrain around the site and discussed the impacts of the proposals in terms of their visual impact. Officers recommended that a Landscape and Visual Appraisal (LVA) is submitted in support of the application.

3.6 Officers recommended that the proposal will need to demonstrate how it will deliver biodiversity net gain (BNG). A BNG Assessment has been submitted in support of this application. As the site is located on agricultural land, a Preliminary Ecological Appraisal (PEA) was submitted as part of the pre-application advice request. Officers recommended that further surveys were required to demonstrate that the proposals will not result in any unacceptable harm to the biodiversity and ecology of the Site and the surrounding areas.

3.7 Further, officers recommended that a noise impact assessment is also provided in order to

demonstrate that the daily running and maintenance of the site will not adversely impact the nearby residential properties or create unacceptable levels of noise pollution.

3.8 Officers recommended the plans and documentation that should be submitted as part of a planning application, including reports to address arboriculture, ecology as well as transport and highways.

3.9 Officers also noted that some matters could be secured via pre-commencement planning conditions following the grant of planning permission.

4.0 THE PROPOSED DEVELOPMENT

4.1 The proposed development is for battery storage, indicatively comprising 42 battery cabinets, alongside 36 power control units which would enable the operation of battery energy storage site with a 50MW grid connection.

4.2 The development would be connected via a Distribution Network Operator (DNO) substation to the existing 132kV powerlines which run in a broadly northwest to southeast axis some 275m east of the Site at their nearest point. The connection will be made by underground cable.

4.3 As part of this planning application, plans and illustrative elevations of the fixed infrastructure have been provided. The fixed infrastructure will comprise:

- x42 Standalone Battery Cabinets;
- x36 Inverters/Transformers;
- x1 DNO Substation;
- x1 Aux Transformer;
- x1 Control Room/Storage Room;
- Paladin fencing
- CCTV poles.

4.1 The battery cabinets would each typically have a footprint of about 1.69m^2 and will be a height not exceeding 3.1m. The proposed equipment may emit low levels of noise when operational, arising primarily from the cooling system required to maintain the temperature both during charging and discharge phases. The location, well away from human habitation including rights of way, will mitigate any impact arising from potential noise.

4.2 The facility will be operated automatically with no permanent human presence. The systems will be monitored remotely but the proposal includes a small control room as well as a facility for the storage of maintenance equipment. The scheme will also be subject to an integral fire suppression system. Once operational only irregular maintenance visits will be required therefore the development will give rise to little traffic – indeed the vehicular movements are likely to be less than that which would arise from the continued agricultural cultivation of the land.

4.3 The Site will be accessed by a track that is to be constructed on the western boundary of the field that lies between the Site and Levedale Road. Whilst there is an existing field gate that gives onto the private track, to the northwest corner of this field, it is proposed that the access

(for construction and subsequently for maintenance use) will be directly to Levedale Road. The track will comprise bound gravel once the development is completed as it will be used only occasionally by light maintenance vehicles.

4.4 The proposed access has been located to minimise the amount of existing hedgerows lost as part of the development. Further, the development will be supplemented with new landscaping on site with native species of hedgerows and shrubbery to compliment the existing vistas of the site. The undeveloped parts of the site will be planted and maintained as shown in the submitted landscaping plan, in accordance with the proposals contained in the ecological report in order to secure the optimum biodiversity benefit.

4.5 Permeable surfacing will be utilised as much as possible on site to ensure that there is minimal impact on the site's ability to drain rainwater.

5.0 NATIONAL ENERGY POLICY AND STRATEGY CONTEXT

5.1 Government support for the transition to renewable energy is a theme that runs through multiple Government publications, strategy, guidance and advice.

Climate Change Act 2008 (2050 Target Amendment) Order (June 2019)

5.2 The explicit need to introduce a step change in how the country deals with climate change was recognised by the UK Government when on 1 May 2019 an Environmental and Climate Change Emergency was declared following the finding of the Inter-governmental Panel on Climate Change. In June 2019, the UK became the first major economy in the world to pass laws to end its contribution to global warming. This requires the UK to bring all greenhouse gas emissions to net zero by 2050. Net zero means any unavoidable emissions will need to be balanced by schemes to offset an equivalent amount of greenhouse gases from the atmosphere, such as planting trees or using technology like carbon capture and storage.

The Climate Change Act 2008 (2050 Target Amendment) Order 2019 sets a legally binding target to bring all greenhouse gas emissions to net zero by 2050, compared with the previous target of at least 80% reduction from 1990 levels. At the time the legislation was enacted the UK had already reduced emissions by 42% while growing the economy by 72%. However, the new target requires a significant increase in renewable energy, development of carbon capture and storage technology, construction of new nuclear generation, and a transition to hydrogen and electric for heating and transport. The UK's energy mix is moving towards a greater proportion of renewable generation and a reduction in more stable and consistent fossil-fuel based generation. That means more electricity storage and flexibility is required in the network to help stabilise supply and demand, given the increasingly intermittent power generation mix.

5.3 On 20 April 2021 the UK government announced that it would set in law a more ambitious target of cutting carbon emissions by 78% by 2035 compared to 1990 levels. This was in response to the UK's Sixth Carbon Budget from the Climate Change Committee and signals the Government's acceptance of the recommendations and commitment to carbon emission reductions. This will inevitably see an increase in the development in renewable energy generation and this will need to be mirrored by similar increases in balancing services, such as the proposed development.

Two-thirds of existing traditional power stations in the UK are reaching the end of their

operational lifespan and are anticipated to close by 2030. This fast-changing energy landscape coupled with an increasing reliance on renewable energy generation equates to a system of high grid frequency volatility. Providing real-time balancing services in the supply of electricity, battery storage will, without question, play a critical role in enabling this transition to renewable power, offering a way to capture surplus electricity from intermittent wind and solar power and release during times of demand.

5.4 In response to this requirement, the Government has set out clear policy for the delivery of facilities to meet the UK's future energy demands. These include:

Ten Point Plan for A Green Industrial Revolution (November 2020)

5.5 The Ten Point Plan[4] published by the Government in November 2020 builds on the Net Zero carbon targets and establishes a plan to promote investment in green technologies. The 10 steps of the 10-point plan includes:

1. *Advancing offshore wind;*
2. *Driving the growth of low carbon hydrogen*
3. *Delivering new and advanced nuclear power*
4. *Accelerating the shift to zero emissions vehicles*
5. *Green public transport, cycling and walking*
6. *Jet zero and green ships*
7. *Greener buildings*
8. *Investing in carbon capture, usage, and storage*
9. *Protecting our natural environment*
10. *Green finance and innovation*

5.6 Energy storage is first referenced within the advancing offshore wind section where it is established that:

> *to integrate clean technologies like offshore wind, we must transform our energy system, building more network infrastructure and utilising smart technologies like energy storage[5].*

5.7 Storage is next referenced within the green finance and innovation section where it is clarified that he ten-point plan is a recognition of technologies to 'decarbonise our economies and transition to net zero.' It is explained that to accelerate the commercialisation of innovative low-carbon technologies that a £1billion Net Zero innovation Portfolio focusing on the 10 key

[4] https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution/title

[5] https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution/title

priority areas, including energy storage and flexibility, would be launched.

It is further clarified that £100 million of this will be provided directly towards Energy Storage and Flexibility innovation challenges for essential technology as we move towards an increasingly renewables heavy system to allow us to store energy over hours, days and even months.

Our Net Zero Future - White Paper (December 2020)

5.8 In December 2020 Department for Business Energy and Industrial Strategy (BEIS) published 'The Energy White Paper'[6] that outlines funding and support packages that will be implemented to help transition the UK towards a net zero economy by 2050. Additional proposed decarbonisation measures are outlined in detail. One key area is 'Industrial Energy' noting:

> *Balancing [energy] supply and demand becomes more complex because most renewables are, by their nature, intermittent"* and *"gas-fired power stations have traditionally provided the flexibility needed to match supply to demand at peak hours, or when renewables output is low. Increasingly, flexibility will come from new, cleaner sources, such as energy storage in batteries [among others].*

Industrial Decarbonisation Strategy (March 2021)

5.9 The Industrial Decarbonisation Strategy[7] published by the UK Government in March 2021 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 changes across all sectors and emphasises that the 2020s will be a crucial decade to lay the foundation to enable the switch away from fossil fuel combustion. 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.

The report undertakes significant modelling and summarises that electrification of industry can reduce emissions by between 5 MtCO2e and 12.3 MtCO2e per annum by 2050 as new technologies emerge, such as renewable technologies which will continue to drop in price over time, leading to a more attractive option for industry. These 'new technologies' are

[6]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945899/201216_BEIS_EWP_Command_Paper_Accessible.pdf

[7]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/970229/Industrial_Decarbonisation_Strategy_March_2021.pdf

further discussed when stating 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*.

Smart Systems and Flexibility Plan (July 2021)

5.10 In July 2021 BEIS published the "*Smart Systems and Flexibility Plan 2021*"[8] in conjunction with Ofgem. The plan sets out a vision, analysis and work programme aimed toward delivering flexible electricity systems that will underpin energy security and the transition to a net zero 2050. The plan is broken down into five sections. Notably, "Chapter 2: Removing barriers to flexibility on the grid: electricity storage and interconnection" which sets out methods to addressing policy and regulatory barriers to electricity storage.

Page 37 of the plan states energy battery storage is targeted to provide:

> *significant flexibility to the system…and helping to address many of the challenges presented by a low carbon system, including maintaining energy security"* by 2030. It continues; *"It [electricity storage] is essential to a net zero system as it can store electricity when it is abundant (e.g., when it is windy or sunny) for periods when it is scarce (e.g., when demand is higher).*

5.11 Page 5 of the plan notes that BEIS and Ofgem analysis shows around 30GW of carbon flexible capacity could be needed as early as 2030, and 60GW by 2050. There is a clear need for increased electricity storage to achieve these targets as page 40 notes a total of 4GW of electricity storage was operational in Great Britain as of the publication date, of which just 1GW was made up of lithium-ion battery storage. T

The Proposed Development would help deliver the flexible energy network envisaged by the plan.

National Grid Predicted Future Requirements

5.12 National Grid Electricity System Operator (NG ESO) publishes a suite of documents on the future of energy needs in the UK annually. Those considered to be of most relevance to the Proposed Development are the latest Future Energy Scenarios and System Operability

[8]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003778/smart-systems-and-flexibility-plan-2021.pdf

Framework documents, both of which are considered in turn below:

Future Energy Scenarios

5.13 The edition of the Future Energy Scenarios published in July 2021[9] states on page 128 that:

> *Electricity storage will become increasingly important as levels of renewable generation increase…while we see some increase in large-scale developments, such as pumped hydro in some scenarios, overall, we expect battery storage to make up the largest share of capacity.*

Under all scenarios considered in the FES 2021 report, increased electricity storage is predicted. It concluded that by 2050 energy storage will need to increase to as much as 39.5GW to achieve net zero.

Summary

It is clear from a consideration of the national energy strategy and the specific reports and statement made by government, that the strategic aim is to re balance the power generation from reliance on fossil fuels to a new greener low carbon-based grid. Battery storage technology is needed to react to demand and generation peaks within the network and is important in tempering the price of electricity. Battery storage is considered to be a key component of the future energy mix under all scenarios considered in the FES. The existing storage provision will need to increase significantly by 2030 to be on track to achieve net zero by 2050 and more ambitious targets are anticipated in light of COP26 and decarbonising the electricity system by 2035.

5.14 The proposed development would help provide a flexible modular energy storage system which could instantly deliver or store power in response to system stress events on the national grid transmission network. This would reduce the curtailment of renewable energy generation and reduce the need for fossil fuel generate thereby minimising climate change.

[9] *https://www.nationalgrideso.com/future-energy/future-energy-scenarios/fes-2021*

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6.0 BATTERY ENERGY STORAGE

Renewable Energy Infrastructure

6.1 As noted above, the national objective is that the UK's energy mix must move towards a greater proportion of renewable generation and a reduction in fossil-fuel based generation, albeit that these are more stable and consistent in operation. World events have however placed still greater emphasis on the need for energy self-sufficiency and that means an accelerated role for renewables. The result is that electricity storage and flexibility is required in the network to help stabilise supply and demand, given the intermittent nature of a renewable power generation mix heavily dependent on wind and solar sources.

6.2 Providing real-time balancing services in the supply of electricity, battery storage has a vital role in enabling effective and most efficient use of renewable power, offering a way to capture surplus electricity from wind and solar power and its release during times of peak demand.

Towards a Decentralised Energy Network

6.3 In transiting from a fossil fuel-based energy system to a system more reliant on energy from renewable sources, it is important to recognise that the future of our energy system will be in a more operationally complex decentralised network.

6.4 The concept of a decentralised network in simple terms relies on energy that is generated and stored close to where it will be used, as opposed to energy being generated by a large-scale industrial plant and transmitted long distances through the national grid.

6.5 The decentralised network will be one that can better respond to the intermittent, fluctuating production of renewable power with additional power plants and storage facilities. Battery storage facilities are therefore a critical component in helping to integrate renewable power into the wider grid. By providing a system reserve, the often fluctuating and intermittent power generation of renewables can be tempered. The resulting reduction in intermittency improves the financial viability of adding more solar and wind into the energy mix.

6.6 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.

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The Role of Battery Energy Storage

6.7 OFGEM published a white paper, Upgrading Our Energy System: Smart Systems and Flexibility Plan which outlines the various mechanism including energy storage to improving the resilience of the national electricity network in July 2017. Projects of this kind were highlighted as having a key role and it states that:

> *By harnessing the potential of energy storage… we have an opportunity to upgrade to one of the most efficient, productive energy systems in the world. This is central to how we deliver secure, affordable and clean energy now and in the future*.

6.8 National Grid plc echoed this in their Future Energy Scenarios 2020 paper. National Grid plc envision an 800% increase on the amount of energy storage being supplied to the grid by 2050 and have stated:

> *How we operate Great Britain's grid is changing, with record levels of renewable sources generating our power. Storage can help us make the most of this green energy, using it to manage peaks and troughs in demand and operate the electricity system as efficiently as possible - keeping costs down for consumers too.*
>
> - Head of Markets at National Grid Electricity System Operator, Kayte O'Neill.

6.9 Large-scale battery facilities can be a material part of this objective, contributing to achieving the Net Zero 2050 target and reflecting '*the importance of flexibility to manage differences in when and where energy is produced and consumed*.'

6.10 The key recognition of the role of battery storage came in July 2020 when the Government issued a consultation on removing restrictions on the consent regime for battery storage. The then Minister of State for Business, Energy and Industrial Strategy, Rt Hon Kwasi Kwarteng MP stated:

> *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. These changes will make it simpler for large scale storage facilities to seek planning permission, helping to bring forward larger projects supporting more efficient grid balancing and management of intermittent renewable generation.*

6.11 Enactment of this change came about in November 2020 by way of the Infrastructure Planning (Electricity Storage Facilities) Order 2020. It formally recognises that battery storage is an essential component of the renewable energy mix. This was followed up by the publication of the Power Our Net Zero Carbon Future- White Paper (2020) in December of that year.

6.12 The emphasis of Government policy has subsequently been reflected by the National Planning Policy Framework (2021) and also in revised draft overarching national energy policy. The Department of Energy and Climate Change (DECC)[10] published the Overarching National Policy Statement (NPS) for Energy EN-1[11]. The Draft states at 3.3.17 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*.

6.13 Paragraph 3.3.18 states:

> *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. However, neither of these technologies, as with demand side response, are sufficient to meet the anticipated increase in total demand, and so cannot fully replace the need for new generating capacity".*

6.14 Paragraphs 3.3.24- 3.3.29 of EN-1 contain a subheading on the role of storage, 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.*

6.15 The cost and grid reliability benefits of energy storage is also emphasised:

> *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.*

Battery Operation

6.16 The scheme will primarily operate under two scenarios, price arbitrage and frequency response.

6.17 The first strategy allows the batteries to avail of price inefficiencies in the market. For instance, the batteries can charge when there is an excess of power from renewables such

[10] Now part of the Department for Business, Energy and Industrial Strategy .
[11] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1015233/en-1-draft-for-consultation.pdf

as wind and solar on the grid. For example, the influx of renewables can cause the minute-to-minute price to drop, allowing the batteries to cost efficiently charge at midday on a summer afternoon and then release at a peak in demand that evening. This load shifting can also take the demand off more emissions heavy plant from operating during the peak.

6.18 The national grid operates at a frequency of 50Hz, and this varies depending on the level of generation and demand on the network on a second-by-second basis. Batteries can alter the frequency on the grid to avoid electrical faults and also mitigate risk of damage to the infrastructure or black outs. Batteries can affect the frequency by exporting to the grid effectively or by importing electricity and charging up. As such, battery storage provides the perfect balancing mechanism for continuous electricity supply to the national grid.

Battery Safety

6.19 Batteries are an inherently safe technology given that each lithium-based cell is self-contained and grouped within dedicated containers separated by gravel strips. Each individual cell's performance is monitored to ensure efficient operation; key metrics are level of current and temperature. There are multiple fail-safes in place should the monitoring system identify any irregularities including;

- Should the battery exceed a targeted level of charge the cell can be isolated electrically to prevent any hazardous over charging.
- Temperature, a key indicator of a potential issue, and controlled by a cooling system, is monitored closely and current can be isolated should cells operate outside of a desired temperature range.

6.20 Industry level monitoring shows that the operation of these facilities is extremely low risk. Nevertheless, to ensure safe operation over the long term the containers are designed in line with best practice. This involves provision of a two-stage fire detection system: firstly, a Very Early Smoke Detection Apparatus (VESDA) that can detect increased levels of CO; and a standard heat and smoke detection system. Should the fire prevention system be activated then an inert gas will be pumped into the container to isolate overheating and fire risk at source.

7.0 PLANNING POLICY CONTEXT

7.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 (as amended) states the planning application should be determined in accordance with the development plan unless material considerations indicate otherwise.

In the case of the Site, the principal elements of the development plan for the area comprises:

- South Staffordshire Core Strategy (2012)
- Site Allocations Document (2018)

7.2 Other material considerations include:

- National Planning Policy Framework (2019); and
- National Planning Policy Guidance (NPPG)

South Staffordshire Core Strategy 2012

7.3 SSC adopted the Core Strategy (Local Plan) Development Plan Document in December 2012. It sets out the spatial planning strategy for the District up to 2028. Whilst its policies provide a context for the determination of planning applications and Policy EQ6 is a policy for renewable energy, the plan predates the development of battery technology and the importance that is now placed on delivering a renewable energy strategy. Weight must therefore also be attached to national policy as noted above and in relation to the Framework.

Core Policy 2 (Protecting and Enhancing the Natural and Historic Environment) states that the Council will support development to improve the natural environment where it is poor and increase the overall biodiversity of the District including the development of green infrastructure links and to improve the historic environment where it is identified as at risk.

7.4 ***Policy EQ1 (Protecting, Enhancing and Expanding Natural Assets)*** states that permission will be granted for development (alone or in combination) which would not cause significant harm to sites and/or habitats of nature conservation, geological or geomorphological value, including ancient woodlands and hedgerows, together with species that are protected or under threat. Support will be given to proposals which enhance and increase the number of sites and habitats of nature conservation value, and to meeting the objectives of the Staffordshire Biodiversity Action Plan (SBAP).

Wherever possible, development proposals should build in biodiversity by incorporating

ecologically sensitive design and features for biodiversity within the development scheme. Development proposals should be consistent with the Supplementary Planning Documents on Biodiversity and Landscape Character and other local planning policies.

7.5 ***Policy EQ4 (Protecting and Enhancing the Character and Appearance of the Landscape)*** outlines that the intrinsic rural character and local distinctiveness of the South Staffordshire landscape should be maintained and where possible enhanced. Trees, veteran trees, woodland, ancient woodland and hedgerows should be protected from damage and retained unless it can be demonstrated that removal is necessary and appropriate mitigation can be achieved. For visual and ecological reasons, new and replacement planting should be of locally native species.

Throughout the District, the design and location of new development should take account of the characteristics and sensitivity of the landscape and its surroundings, and not have a detrimental effect on the immediate environment and on any important medium and long-distance views. The siting, scale, and design of new development will need to take full account of the nature and distinctive qualities of the local landscape. The use of techniques, such as landscape character analysis, to establish the local importance and the key features that should be protected and enhanced, will be supported.

7.6 Where possible, opportunities should be taken to add character and distinctiveness through the contribution of new landscape features, particularly to landscapes which have been degraded.

Policy EQ6 (Renewable Energy) confirms that provision should be made for renewable energy generation within South Staffordshire to maximise environmental and economic benefits whilst minimising any adverse local impacts. However, it provides no detailed criteria for the consideration of technologies other than biomass and wind.

7.7 ***Policy EQ11 (Wider Design Consideration)*** outlines that proposals should respect local character and distinctiveness including that of the surrounding development and landscape, in accordance with Policy EQ4, by enhancing the positive attributes whilst mitigating the negative aspects and development should take every opportunity to create good design that respects and safeguards key views, visual amenity, roofscapes, landmarks, and focal points.

Policy EQ12 (Landscaping) promotes for landscaping of new development must be an

integral part of the overall design, which complements and enhances the development and the wider area.

7.8 Overall, the environmental and local amenity impact of all renewable energy schemes (both small and large scale) including any infrastructure or buildings must be fully assessed and development proposals will be considered in accordance with Core Policy 2 and the relevant EQ policies in terms of the impact of any development on local amenities, including environmental and landscape impacts, impact on the historic environment and impact on the amenities of local residents.

National Planning Policy Framework 2021

7.9 In this instance it is considered that the Framework is material to the consideration of this planning proposal having regard to the absence of policy for battery storage and the very early stages of the preparation of a new local plan.

Paragraph 2 states that planning law requires that applications for planning permission to be determined in accordance with the development plan unless material considerations indicate otherwise. The Framework must be taken into account as a material consideration in planning decisions.

7.10 ***Paragraph 8*** sets out three dimensions to the principle of sustainable development: economic, social, and environmental. These dimensions give rise to the need for the planning system to perform a number of roles:

- Economic role — The very nature of the development proposals is to underpin investment within the local economy and support local communities.
- Social role — the application proposal will support and enhance the vibrancy of the community by providing a low carbon energy source. The security provided to emerging availability will ensure community facilities, homes and amenities are suitable supplied with energy going forward.
- Environmental role — support existing infrastructure with an energy source which can add capacity and tolerance to the network at times of spikes in use or drop in renewable resources. This is a low carbon source of energy.

7.11 ***Paragraph 11*** sets out a clear presumption in favour of sustainable development. For decision taking this means:

- Approving development proposals that accord with the development plan without

delay; or

- Where the development plan is absent, silent or relevant policies are out of date, granting permission unless:

  (i) *Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or*

  (ii) *Specific policies in this Framework indicate development should be restricted.*

7.12 ***Paragraph 38*** sets out the Framework's expectations for how Councils should approach decision making. This paragraph states that decision making should be approached in a positive way to foster sustainable development that they should look for solutions rather than problems; and that decision takes should approve applications for sustainable development.

Paragraph 80 states that planning policies and decision 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. A consistent and reliable power supply is essential to supporting the economy.

7.13 ***Paragraph 83*** of the Framework states that planning principles should, and decisions should enable;

- The sustainable growth and expansion of all types of business and enterprise in rural areas, both through conversion of existing buildings and well-designed new buildings; and

- The development and diversification of agricultural and other land-based rural businesses.

7.14 ***Paragraph 148*** states that the planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risks 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 and support renewable and low carbon energy and associated infrastructure.

Paragraph 154 of the Framework states when determining applications for renewable and low-carbon energy, local planning authorities should 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 approve the application if its impacts are (or can be made) acceptable.

National Planning Practice Guidance

7.15 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).

7.16 In considering planning applications, it is important to be clear of the following material considerations (Paragraph: 007 Reference ID: 5-007-20140306):

- The need for renewable or low carbon energy does not automatically override environmental protections;
- Protecting local amenity is an important consideration which should be given proper weight in planning decisions.

8.0 PLANNING ASSESSMENT

8.1 The proposed development is located as such in order to minimise the impact of the proposals on the open character and visual appearance of the countryside. The proposed battery storage facility will connect to the existing overhead electricity pylons at the nearest available point, approximately 275m from the Site. The proposed development has been located as such due to the Site benefiting from existing landscaping, particularly along the road boundary, which provides a natural screen to the development.

8.2 The choice of site therefore reflects a balance between landscape integration, access for construction and maintenance, minimising the impact on continued farming operations and scope where possible to enhance both landscape and biodiversity, whilst providing facilities to provide renewable energy.

Principle of Development

8.3 Battery storage plays a critical role in enabling the transition to renewable power. This is fully recognised and supported by Government. Furthermore, flexible technologies like batteries will form an essential part of the UK's smarter decentralised electricity grid,

8.4 As set out earlier within this statement battery storage is crucial role in the transition from centralised power networks to a decentralised network where power from renewable sources is generated much closer to where it will be used. Battery storage ensures that the often fluctuating and intermittent power generation of renewables can be tempered, through release and storage of power to react to demand and generation peaks. This is crucial in providing a reliable and cost-effective energy from renewable sources, which will help to improve the financial viability of adding more solar and wind produced power into the energy mix.

8.5 In cost terms, the integration of more low-carbon heat and transport technologies is estimated to save the UK energy system up to £40 billion over the next 30 years. However, in order to do so the UK must increase its deployment tenfold to meet its net-zero goal by 2050. The proposal would therefore provide many benefits including facilitating renewable and low carbon technology and contributing to network resilience and energy security.

8.6 Paragraph 158 of the Framework states that, when determining planning applications, local planning authorities should:

- not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and
- approve the application (unless material considerations indicate otherwise) if its impacts are (or can be made) acceptable.

8.7 The principle of providing battery storage infrastructure and transitioning to a fully decarbonised system has been explored in detail in Section 5 of this Statement.

8.8 Policy EQ6 (Renewable Energy) of the SSC Core Strategy 2012 identifies that the local authority should strive to meet a minimum of 9.6% of its energy demand through renewable energy sources, which is only ever increasing, to maximise environmental and economic benefits whilst minimising any adverse local impacts

8.9 Other development plan policies identify landscape and ecology as determining factors along with amenity impacts to be weighed in the balance.

Location

8.10 The location of the proposed development is driven by a number of factors, principally the ability to connect to the existing national grid. Not all of the grid is capable of receiving energy into it at local connections – it was designed essentially to distribute power. The 132kV lines to the east of the site do have capacity to both deliver and receive power inputs and this is the main determining factor of location.

8.11 Another relevant consideration as referred to earlier is that as part of the decentralisation of energy, proximity to main sources of demand is a key factor. The line into which the development will connect is the principal connection between the northern parts of the West Midlands conurbation and Stafford. It is one of the key distributors of energy for communities to the north west of Birmingham.

8.12 The choice of specific sites to enable the utilisation of the available capacity has been driven by the following considerations.

Landscape and Visual Value

8.13 The proposed development has been carefully considered in terms of its location and impact on the open countryside.

8.14 The Site is located in an agricultural field unaffected by designations relating to landscapes and the natural, and historic environments. It lies beyond the South Staffordshire Green Belt.

8.15 Whilst the use would be viewed in isolation within the Site and is not set against the backdrop of existing infrastructure such views are limited and distant. There are no public rights of way in the near vicinity save Levedale Road. The Site is well screened from Levedale Road and further supplements to the existing tree and hedge boundary would be provided. New hedge planting along the eastern boundary would make the field fully self-contained and screened from potential oblique views seen from the northeast. There are no views towards the Site from the south and west.

8.16 The planning application is accompanied by a Landscape and Visual Impact Assessment (LVIA) which assesses the landscape character of the Site and its surroundings, considers the landscape and visual qualities of the Site, its function in the are proposed. This addresess the requirements of Policies CP2, EQ4 and EQ12 and demonstrates that the overall impact on the landscape setting of the Site and wider area will be limited subject to appropriate mitigations to be provided.

Biodiversity and Agriculture

8.17 Core Policy 2 and Policy EQ1 are relevant to biodiversity as well as landscape and character. The Site is located within a field parcel of moderate agricultural grade.

8.18 The planning application is supported by an assessment of agricultural land grade and by a biodiversity survey containing a Preliminary Ecological Appraisal which has regard to existing land uses, ecological value and the potential for biodiversity enhancement on the remaining areas of the field parcel not required for the development as well as a result of new boundary planting. It accordingly also addresses the requirements of development plan and national policy.

8.19 A biodiversity net gain (BNG) Assessment has been provided as part of the submission. The proposed development includes the provision of various measures to enhance the biodiversity value of the site through the use of supplementary hedgerow planting and planting of wildflowers. The proposed measures seek to increase the level of pollination whilst incorporating strategic landscaping of native species in order to achieve the required biodiversity net gain of 10%.

Access, Transport & Highways

8.20 Access to the proposed development will be from a service track to be constructed from Levedale Road as indicated on the accompanying plans. Once construction is completed the track will be retained for periodic access for maintenance purposes.

8.21 The movement of vehicles to and on site during the construction period will be subject to a Construction Traffic Management Plan (CTMP) submitted with the application, the implementation of which will be expected to be subject to a suitable planning condition. The submitted CTMP concludes that the proposed measures, controls and procedures in connection with the traffic management of the Site will deliver a high level of control in managing the construction vehicular activities that will be undertaken.

8.22 A Transport Assessment (TA) has also been submitted as part of the application which details the impact of the proposals upon the Site and the local highways network in terms of traffic generation and health and safety impacts.

8.23 The TA concludes that there have been no recorded incidents at the site access and very few in the preferred construction traffic route to the site. The TA also finds that the network is appropriate to accommodate construction traffic and, given the anticipated construction period, the site would result in 3-4 HGV movements per day. It is also concluded that the proposed development would not result in any inherent safety concerns in terms of both visibility and traffic generated during the construction phase of the development. As such, it is considered that the proposals are acceptable in both planning and design terms in relation to the transport and highways implications of the development.

Historic Environment

8.24 There are no noted historic assets in proximity to the Site which is not believed to be subject to potential buried archaeology. Notwithstanding this, the Applicant will submit an assessment of the historic environment having regard to the principles set out in Policy CP2 and EQ3 so far as it may be relevant, as well as national planning policy.

Noise

8.25 Noise levels from the batteries are minimal and intermittent and given the location of the Site away from any residential receptors and the impacts of the background noise from the existing substation, additional noise will not be discernible. A noise impact assessment has

also been submitted as part of this planning application. The assessment confirms that the proposed development will not give rise to sound levels that exceed the measured background sound level in the area. The assessment identified that no significant change in ambient sound level at the identified receptor locations will be endangered as a result of the proposed development.

8.26 The assessment also demonstrates that the Proposed Development will give rise to noise impacts that would be within the range of NOAEL of the NPPG England guidance. The report recommends that noise should not be considered a constraint to the approval of this planning application.

Air Quality

8.27 Given that there are no qualitative airborne emissions arising from the use of battery storage, no formal assessment should be required.

9.0 CONCLUSION

9.1 This planning application has been prepared by DLP Planning Ltd, on behalf of Anglo Renewables Ltd in support of an emerging proposal for development on land on the southwest of Levedale Road, Penkridge for:

9.2 *Full planning application for the construction and operation of a battery energy storage facility and substation with associated fencing and landscaping.*

9.3 The proposed development would support the decarbonisation of the electricity system in the UK by 2035. The changing nature of the UK's energy requirements is clearly defined in Government energy policy and is supported by the anticipated requirements of the national grid. These considerations clearly identify an essential requirement for additional grid-balancing capacity to meet demand and support the transition to a low carbon, resilient energy network. The proposed development would make an important contribution towards meeting these requirements and on an initial overview, would not give rise to any material detrimental impacts in respect of noise, air quality, landscape and visual, traffic, heritage, ecology, flood risk, pollution, or local residential amenity.

9.4 An assessment of the proposed development against relevant planning policy and guidance has demonstrated that the scheme meets the tests of Section 38(6) of the Planning and Compulsory Purchase Act and the statutory development plan. Where there is tension with open countryside policies this is outweighed by the imperative need for these types of development to combat climate change. In In conclusion and based on the findings of this Statement, granting of planning permission can be justified and the proposed development supported.

9.5 We consider that the proposed development is acceptable in both planning and design terms and therefore respectfully request that our client's planning application is permitted without delay.

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