Intelligent Alternatives

A Carbon Neutral Company



PLANNING, DESIGN AND ACCESS STATEMENT

Proposed Battery Energy Storage Scheme (BESS)

Land at Whitley Farm, Whitley Lane, Ashcott, Somerset

9 March 2022

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1. Introduction

1.1 This Planning, Design and Access Statement (PDAS) accompanies an application to Mendip District Council (the Council) by Intelligent Alternatives Limited (IA, the Agent) on behalf of Whitley Solar Park (Ashcott Farm) Limited[1] (the Applicant) for detailed planning permission for "Battery Energy Storage Scheme (BESS) and associated development" (the Proposals) on "Land at Whitley Farm, Whitley Lane, Ashcott, Somerset" (the Site).

1.2 In October 2021, the UK Government made a commitment within the Net Zero Strategy[2] to fully decarbonise the UK's power system by 2035, in line with seeking to make the UK carbon net zero by 2050. BESS are a key component in adapting the UK power system to become smarter and more flexible, and better balance need and demand to transition to a net zero carbon system.

1.3 The Proposals will contribute towards supporting the UK's transition to Net Zero Carbon by 2050, and support the decarbonisation of the energy power system. Specifically, the Proposals are being developed as they will assist in modernising the operation of the existing solar farm to balance the supply of energy to and from the grid more efficiently. As part of the Proposals, a Biodiversity Net Gain will also be delivered.

1.4 This PDAS wills set out details of the Site and the Proposals, and assess them against the development plan and other relevant policy and guidance.

1.5 Alongside this PDAS, the planning application is also accompanied by the following plans, drawings and accompanying information:

Title/Reference	Author	Date
Location Plan (1:5,000)	IA	1 March 2022
Location Plan - Planning Authority Boundary (1:5,000)	IA	1 March 2022
Existing Site Plan (1:1,000) Rev A1	IA	1 March 2022
BESS Site Design (1:1,250) Rev C2	IA	8 March 2022
Battery Container Rev A1	IA	8 March 2022
Battery Transformer Rev A1	IA	7 March 2022
Inverter Rack Rev A1	IA	7 March 2022
33kV Substation, Rev A1	IA	8 March 2022
Grid Compliance Equipment	IA	8 March 2022
Ecological Appraisal	Quantock Ecology	March 2022
Biodiversity Net Gain Metric	Quantock Ecology	March 2022
Noise Impact Assessment	24 Acoustics	7 March 2022

Table 1 – Application plans, drawings and documents

[1] Part of Next Energy Capital (https://www.nextenergycapital.com/)
[2] Net Zero Strategy: Build Back Greener (October 2021)

2. NextEnergy

2.1 NextEnergy Capital's mission is to contribute to a more sustainable future by leading the transition to clean and flexible energy system. The company is dedicated to advancing the delivery of utility scale solar projects and BESS in the UK. NextEnergy is a UK based company, and takes on the role of developer, investor and operator of its solar farms and BESS, as well as being a long-term owner of projects. The company's long-term commitment is driven by innovative solutions and a responsible approach to delivering sustainable renewable energy solutions in cooperation with local communities and stakeholders. NextEnergy has a proven track record as a responsible investor, implementing market leading initiatives for biodiversity and community engagement. It aims at all times to be a good neighbour to the community in which it operates.

3. Site Description and Allocations

3.1 The Site comprises of 0.47 hectares of grassland located mostly within the boundary of the existing solar farm as approved under planning permission reference 2013/1515, later amended through a Section 73 planning application to extend the operational life of the solar farm to 40 years (ref: 2019/3005/VRC). It is understood that the original permission was a cross-boundary application, with the access track residing within Sedgemoor District Council. Therefore, a further planning permission (Ref. 01/13/00015) sits on the land and is noted.

3.2 The Site lies on agricultural land to the west of the Whitley Wood Ancient Woodland, and is sited between the boundary of the solar farm and field boundary of the woodland.

3.3 The nearest dwelling to the Site is Whitley Wood Farm, which lies approximately 150m north of the Site.

3.4 The solar farm equipment in the Site's vicinity includes the existing deer fencing, the solar panels and an electrical equipment cabin in the north-eastern corner.

3.5 The Site can be accessed from Whitley Road to the north and east via the approved solar farm construction / maintenance / decommissioning route which runs north of the solar farm to the adopted highway.

3.6 The Site does not lie within a flood zone and does not lie within a national or local designation according to Mendip Adopted policies map[3].

4. Planning History

4.1 In terms of the history of the Site, the original planning permission for the solar farm (Ref: 2013/1515) was approved by Mendip District Council on 4 October 2013, and by Sedgemoor District Council (Ref. 01/13/00015) on the

[3] http://www.planvu.co.uk/mdc/

15 October 2013. A Section 73 application was then approved on 26 February 2020 (ref: 2019/3005/VRC) on the Mendip planning permission, to extend the operational solar farm lifespan to 40 years, and is understood to be the extant permission in Mendip.

4.2 A number of non-material amendments relating to the operational solar farm are also noted as follows:

- 2014/0934/NMA | Non-material amendment to planning permission ref. 2013/1515 in order to incorporate changes to the approved layout, including the re-positioning of three inverters and the western most part of the security fence | Approved 9 June 2014
- 2015/1525/NMA | Application for a non-material amendment following a grant of planning permission 2013/1515 regarding alterations to the inverter station detail | Approved 10 July 2015
- 2019/1225/NMA | Application for a non-material amendment to permission 2013/1515 for the regularisation of the re-siting of the storage unit | Approved 7 June 2019

4.3 Discharge of Conditions applications are also noted but are not repeated here for brevity.

4.4 Lastly, a single solar panel array has been approved and is in operation to the north of the Site and the operational solar farm, which was approved under ref 2011/1414.

5. Description of the Proposal

5.1 The detailed drawings of the Proposals are shown on the submitted plans and drawings which accompany the application, and are detailed in Table 1.

5.2 BESS are a collection of ground-mounted containers storing batteries which conserve and release electricity to supporting the balancing of demand and supply. The ability to store and transfer energy generated from solar, as well as the grid, assists in the delivery of a more viable, smart and efficient energy system. Moreover, storing UK generated renewable energy assists in making the UK power system more resilient to fluctuating energy prices, and reduce dependency on fossil fuels and overseas energy suppliers.

5.3 As such, the BESS form an essential component in a modern, flexible energy system to 'balance' and decarbonise the grid by 2035, and are increasingly forming an essential part of solar farm infrastructure in forthcoming developments. This has been recognised within the Smart Systems and Flexibility Plan published by Ofgem (July 2021) and the Net Zero Strategy (October 2021), which builds on the Smart Systems and Flexibility Plan. Particularly, the Net Zero Strategy stresses that a net zero economy will be underpinned by a cheap, clean, reliable power system, which will require investment in electricity storage solutions and flexible grid management to ensure decarbonisation without risking security of supply[4].

[4] Net Zero Energy Strategy: Build Back Greener (October 2021), BEIS

5.4 More individually, the Proposals will form part of the existing solar farm's essential operational infrastructure, as their grid connection sits 'behind the meter' of the solar farm, meaning they will assist in the ability of the solar farm to release and conserve energy, improving its efficiency.

5.5 It is considered that had the BESS containers formed part of the original solar farm planning submission, in the same location, they would have been considered appropriate.

5.6 The Proposed BESS comprises six standard metal, light grey / moss green battery storage containers, which are approximately 2.9m in height, 6.1m in length and 2.4m wide, and will store the batteries and electrical infrastructure inside (refer to "Battery Container" drawing).

5.7 The battery containers will be connected to a metal / fiberglass, light grey / moss green battery transformer which will be approximately 2.9m in height, 6.1m long and 2.4m wide (refer to "BESS Transformer" drawing).

5.8 Two inverter racks will be connected to the transformers and BESS Containers, and comprise of light grey / moss green metal/fiberglass units as shown on drawing "Inverter/Inverter Rack" drawing). Each inverter rack will be approximately 1.8m in height, 6.3m in length and 1.4m wide.

5.9 Two new 33kV BESS Substations will also form part of the Proposals, and will be located to the north and to the west of the Site as shown on the "BESS Layout Planning" drawing. The substations will be approximately 3.3m in height, 4.8m long and 5.1m wide (refer to "33kV Substation" drawing).

5.10 Two storage / communication / switchgear units will be located to the north of the Proposals, measuring approximately 2.7m in height, 4.3m in length and 3.1m in width (refer to "Grid Compliance Equipment" drawing). They will also be moss green / light grey in colour and made of metal / fiberglass.

5.11 The existing fence line and CCTV of the existing solar farm will be adjusted to provide space for the access track, and will include the relocation of an existing gate, and the erection of a new gate which will be consistent with the gate specification already approved and installed as part of the existing solar farm (Ref: 2019/3005/VRC). The fencing, gates and CCTV will be first erected along the eastern boundary of the Site prior to construction, to protect the existing trees forming Whitley Wood, in line with the approach approved under Condition 7 of the original Mendip permission (Ref. 2013/1515).

5.12 The Site will be accessed by a c. 4m wide, permeable, crushed-stone access track which will run mostly along the outside of the existing fence-line, and then loop around the Proposals to the approved solar farm construction / maintenance / decommissioning route and access point.

5.13 There will be a small number of low-level lights on the switchgear housing station which will be manually operated, small and downward-directional, for emergency use/maintenance only. Additionally, manually operated, small and downward directional LED lights will be located on the door of each

battery container to facilitate safe entry/exit for emergency use/maintenance only.

5.14 Biodiversity Net Gain (BNG) measures also form part of the Proposed development, and are set out in Section 6.4 below, and in the BNG Net Gain Calculations which form part of this planning submission.

5.15 The BESS's cable route will connect into the network via the Distribution Network Operator's existing Connection Point at the Whitley Lane 33kV Solar Park substation, which resides adjacent to the new proposed 33kV substation. The cable route of which is shown on the "Location Plan" as part of the red line boundary. The cable route will consist of a trenched cable route along the outlined access track through the existing solar farm, which would be c. 300mm wide and 1.2m deep, and will predominantly follow the verge of the new crushed stone access track. Where the cable route trenching takes place, the grassland above will be reinstated and reseeded to its previous condition.

5.16 It is understood that the Condition 2 of the existing solar farm's decision (ref: 2019/3005/VRC) states that the permission shall expire no later than 40 years from the date when electrical power was first exported from the development to the grid network (25/03/2013). The Proposals are intended to support and improve the operation of the existing solar farm; as such, they are also sought for the lifetime of the solar farm.

5.17 Following decommissioning, the land will be restored to its former condition, in line with Condition 3 of the Sedgemoor permission (Ref. 01/13/00015).

5.18 The Proposals will play a key role in supporting the UK's wider strategy to balance the grid; specifically, the BESS will play an intrinsic role in assisting to balance the energy generated from the existing solar farm, as well as from the grid, to manage demand and supply in the local area.

6. Planning Policy Context and Assessment

6.1 Planning Policy and Guidance

6.1.1 It is understood that the Council's **development plan** presently consists of the Mendip District Local Plan 2006-2029 (Part I: Strategy and Policies), adopted in 15 December 2014, and the Mendip Local Plan Part II: Sites and Policies 2006-2029 which was adopted on 20 December 2021. The latter does not to have policies which relate to the Proposals as the Site does not fall within the allocated sites.

6.1.2 A number of supplementary documents also form part of the development plan, but relate to commercial and residential developments. However, it is noted that the Net Zero Carbon Toolkit (July 2021, endorsed by the Council on 10 January 2022) endorses the use of battery and clean energy solutions to improve energy efficiency and decarbonise the grid by integrating renewable energy into the system, albeit relating to domestic and non-domestic buildings.

6.1.3 A future review of the Local Plan part I and II has been confirmed by the LPA, and a Local Development Scheme has been set out, but is understood to be currently on hold.

6.1.4 The following is a list of further material considerations:

- Planning Practice Guidance (PPG) (various dates)
- Mendip District Local Plan 2006-2029 (Part I: Strategy and Policies) (15 December 2014) (LPP1)
- National Infrastructure Commission's "Smart Power" (March 2016)
- 'Paris' Agreement on Climate Change (November 2016)
- The Clean Growth Strategy (October 2017)
- Committee on Climate Change 'Net Zero Report' (May 2019)
- The Climate Change Act 2008 (2050 Target Amendment) Order 2019 (June 2019)
- The Ten Point Plan for a Green Industrial Revolution (November 2020)
- National Infrastructure Strategy (NIS) (November 2020)
- The Sixth Carbon Budget, UK's Path to Net Zero (December 2020)
- Energy White Paper, Powering Our Net Zero Future (December 2020)
- Towards a Climate Resilient Somerset Somerset's Climate Emergency Strategy (2020)
- The National Planning Policy Framework (NPPF) (July 2021)
- Smarty Systems and Flexibility Plan, Ofgem (July 2021)
- Transitioning to a Net Zero Energy System: Smart Systems and Flexibility Plan (July 2021)
- Mendip District Council District-wide Carbon Management Plan 2021-2023 (August 2021)
- AR6: Climate Change 2021: The Physical Science Basis (August 2021), Intergovernmental Panel on Climate Change (IPCC), Working Group I
- Draft Overarching National Policy Statement for Energy (EN-1) (September 2021)
- Draft National Policy Statement for Renewable Energy Infrastructure (EN-3) (September 2021)
- Mendip Landscape Character Assessment 2020 (October 2021)
- Net Zero Strategy: Build Back Greener (October 2021)
- AR6 Climate Change 2022: Impacts, Adaptation and Vulnerability (February 2022), IPCC, Working Group II

6.1.5 The relevant details of these plans are set out below in the relevant sections, and the Proposals are considered against them, based as need be on the independent assessments which accompany the application. Further specific guidance is noted as need be in the relevant sections below.

6.2 Principle of Development

The role of BESS in tackling climate change

6.2.1 There have been recent widespread realisations of the potential impact of global climate change and a recognition that swifter, greater action is required to reach net zero by 2050 (and a fully decarbonised energy system by 2035). This has included a greater understanding on the need to adapt the grid to accommodate renewable energy, and therefore that BESS play a vital role in decarbonising the grid, and transitioning to a smarter and more flexible power network.

6.2.2 Stemming from the 'Paris Agreement' in 2015, the Government's Clean Growth Strategy recognised the need for a smarter, more flexible electricity system, which takes advantage of rapidly developing technologies such as energy storage, as part of supporting a modern energy supply mix[5].

6.2.3 In March 2016, the National Infrastructure Commission (NIC) published their 'Smart Power' report, which set out how 'Smart Power', including energy storage, is one of the key components required to modernise and decarbonise the power system to meet the Government's legally binding climate change goals.

6.2.4 The report recognises the benefits of storage, and suggested at the time that the UK should become a "world leader" in electricity storage systems. The NIC also recommends that "network operators should be encouraged to see storage as a central tool to improve the capacity and resilience of their networks as part of a more actively managed system".

6.2.5 Figure 1 below depicts what the NIC would want their future power system to look like, and visually demonstrates that renewable energy generation (such as wind and solar) will require BESS:

[5] The Clean Growth Strategy: Leading the way to a low carbon future (October 2017, page 95)

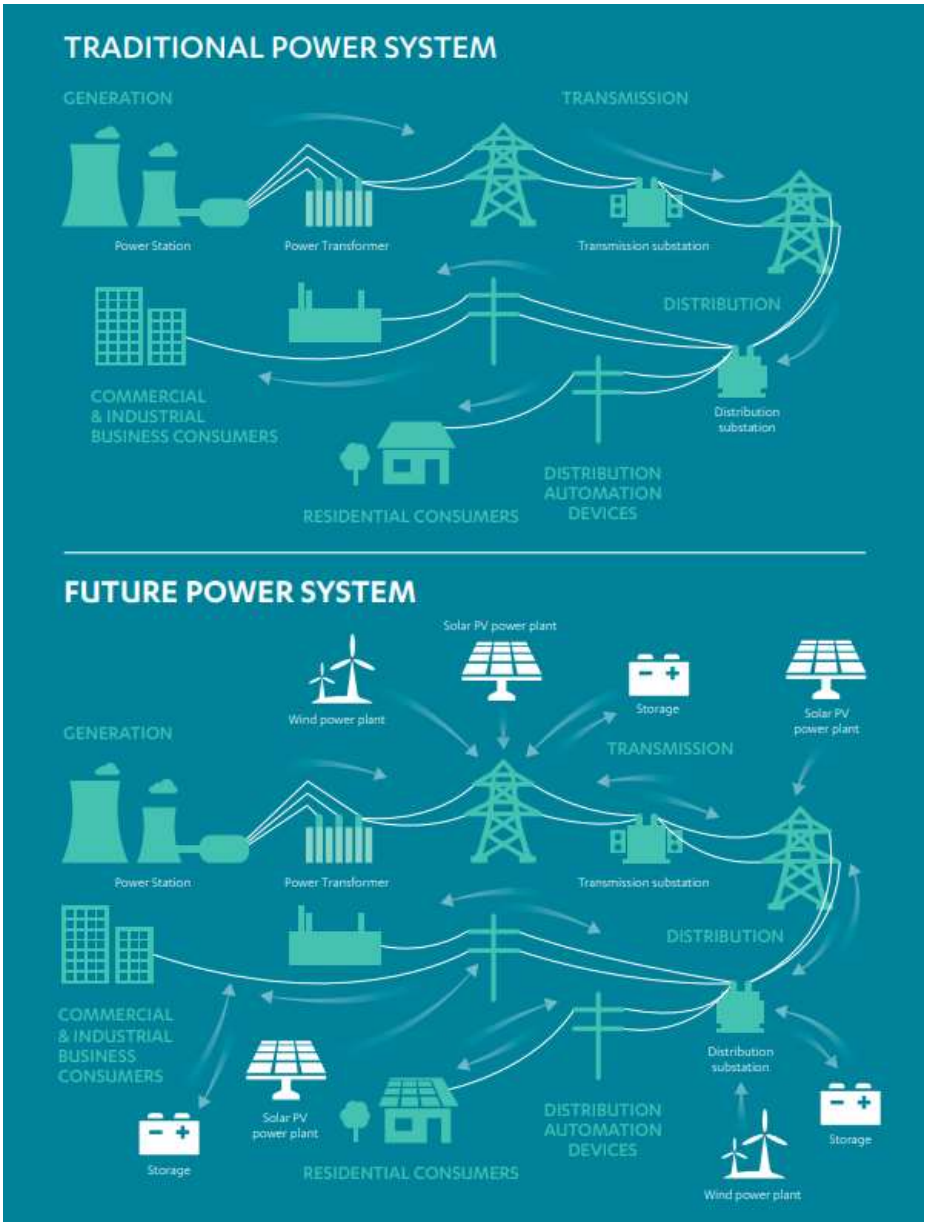


Figure 1 – Future Power System (source: NIC)

6.2.6 In February 2019, the Council, along with many others across the UK, declared a climate emergency, committing to reach carbon net zero by 2030. One of the key Strategic Objectives of the LPP1 is to "Maintain and Enhance the Quality of the Local Environment and Contribute to international climate change goals".

6.2.7 Recognition of the pressing need to address the climate crisis meant that the UK Government, in June 2019, approved a change to the Climate Change Act's target of an 80% reduction in emissions by 2050, to the country being net zero in 2050. A substantial increase in the proportion of electricity being generated from renewable energy sources, including solar power, is required to achieve this legally binding target. In order to deliver on that, the grid has to be capable of accommodating weather dependent sources of energy; ensuring that energy is stored when generation is high and demand is low

(e.g. daytime when the sun is shining), and releasing energy when demand is high and generation is low (e.g. meal times after nightfall).

6.2.8 More recently, the Government published the National Infrastructure Strategy (NIS) alongside the Ten Point Plan in November 2020 which set out to decarbonise the UK's power networks by integrating clean technologies like wind and solar into the energy system, through improving the network infrastructure and utilising smart technologies like energy storage.

6.2.9 The Climate Change Committee (CCC) published their Sixth Carbon Budget in December 2020, which sets out pathways for the Government to realistically achieve their net zero aim by 2050, and note that a more flexible electricity system is key in a Balanced Pathway, and includes battery storage capacity as a key component of achieving it.

6.2.10 Alongside the Sixth Carbon Budget, in December 2020 the Government published their Energy White Paper: Powering Our Net Zero Future, which recognises that energy storage and flexibility is a priority area for a net zero innovation portfolio, and states that "electricity markets need to adapt as the deployment of renewable generation increases".

6.2.11 Somerset's Climate Emergency Strategy recognises that "the electricity grid is smarter, more flexible and peak demand is met through low carbon and renewable energy, energy storage and improved demand side response". This is reiterated within Mendip's District-wide Carbon Management Plan (2021-2023).

6.2.12 The Ministerial Forward within Ofgem's Smart Systems and Flexibility Plan (published July 2021) states that:

> "A smarter, more flexible system will utilise technologies such as energy storage and flexible demand to integrate high volumes of low carbon power, heat and transport and reach a carbon neutral future.
>
> A smart and flexible energy system can deliver significant benefits for consumers, the system and the wider economy whilst lowering carbon emissions".

6.2.13 The draft National Policy Statement (NPS) (EN-1) and (EN-3), both published in September 2021, stress the "need and urgency for new energy infrastructure to be consented and built to ensure our supply of energy always remains secure, reliable, affordable, and consistent with net zero emissions in 2050 for a wide range of future scenarios". Both documents recognise that increasingly, energy storage is likely to come forward as part of the infrastructure associated with solar farms, and that it plays a pivotal role in achieving net zero and integrate high volumes of low carbon power into the energy system. Specifically, the draft NPS EN-1 states that "storage is needed to reduce the costs of the electricity system and increase reliability by storing surplus electricity in times of low demand to provide electricity when demand is higher".

6.2.14 The first contributing publication to the Sixth IPCC report[6], published in October 2021, demonstrated how human influence has warmed the climate at an unprecedented rate, and stated that urgent action and cooperation is required to slow down the rate of global warming, including a global cumulative effort to reach carbon net zero.

6.2.15 The Government have unveiled plans to decarbonise the UK power system by 2035 which is fully set out in the Government's Net Zero Strategy: Build Back Greener, published in October 2021. A key focus of the report is to build a secure, 'home-grown' energy sector that reduces reliance on fossil fuels and exposure to volatile global wholesale energy prices. Battery energy storage is an essential component in the "integration of low carbon energy sources in a smart and flexible way". Therefore, there is substantial national policy which supports the need for BESS to modernise and decarbonise the grid to meet the Government's legally binding climate change goals, and mitigate against the impacts of climate change. This should be attributed significant weight.

6.2.16 The second publication informing the Sixth IPCC report[7] was recently published, and quantified the extent to which climate change is damaging ecosystems and human systems worldwide, and states that "Global warming, reaching 1.5°C in the near-term, would cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans".

6.2.17 Overall, it is clear that there is substantial policy support for the deployment of BESS to move towards a more flexible, modern and decarbonised grid by 2035 and ultimately mitigate against the impacts of climate change in line with national and international climate change goals, and therefore this should be attributed substantial weight.

Principle of Sustainable Development

6.2.18 As recognised within national policy set out above, BESS developments are considered essential components within a modern, flexible and decarbonised grid system, which support the deployment and operation of renewable and low-carbon energy developments.

6.2.19 The PPG (paragraph 001) on Renewable and Low Carbon Energy states that Planning has an important role in the delivery of new renewable and low carbon energy infrastructure to ensure the UK has a secure energy supply, and reduce greenhouse gas emissions to slow down climate change, in locations where the local environmental impact is acceptable. As BESS are widely recognised as ancillary infrastructure to forthcoming renewable and low carbon energy schemes (as would have been the case had the approved solar farm come forwards now) to facilitate a flexible and secure energy network, it is considered that the Proposals support the fundamental aims of the PPG.

[6] International Panel on Climate Change, AR6 Climate Change 2021: The Physical Science Basis, Working Group I contribution to the Sixth Assessment Report of the IPCC

[7] International Panel on Climate Change, AR6 Climate Change 2022: Impacts, Adaptation and Vulnerability, Working Group II contribution to the Sixth Assessment Report of the IPCC

6.2.20 The PPG (paragraph 003) also notes that "the UK has legal commitments to cut greenhouse gases and meet increased energy demand from renewable sources".

6.2.21 The NPPF states that the "purpose of the planning system is to contribute to the achievement of sustainable development" (Paragraph 7). In terms of the three overarching objectives of sustainability (Paragraph 8), the Proposals have an environmental focus as they will help the country adapt to climate change by contributing to moving to a low carbon economy. They also provide economic benefits by supporting the storage of local renewable energy generation, which reduces dependency on foreign energy supplies and assists in stabilising energy prices for consumers. They will protect social wellbeing and could be argued to enhance this through effective land use and the wider benefits of tackling climate change by decarbonising the grid.

6.2.22 Paragraph 152 provides clear and specific support for the Proposals, stating that the planning system will:

> "Support the transition to a low carbon future in a changing climate… and support renewable and low carbon energy and associated infrastructure".

6.2.23 Crucially, Paragraph 158 states, when determining planning applications for renewable and low carbon development, that 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".

6.2.24 Paragraph 158 also states that applications should be approved if the impacts are acceptable.

6.2.25 Therefore, the Proposals support national policy aims and should be approved without delay.

Development in the Countryside

6.2.26 The Site lies within open countryside as the Site sits outside of the settlement boundaries that are defined within the LPP1. Core Policy 1: Mendip Spatial Strategy states that "development in the open countryside will be strictly controlled but may exceptionally be permitted in line with the provisions set out in Core Policy 4: Sustaining Rural Communities".

6.2.27 However, the Proposals assist in bringing the solar farm up to modern standards, and increasingly are forming part of solar farm applications. This has been recognised within the Energy White Paper, the Smart Systems and Flexibility Plan, and also the recent Net Zero Strategy. The Proposals also support national planning policy aims, as demonstrated above.

6.2.28 Furthermore, it is considered that had BESS technology had been sufficiently advanced at the time of the solar farm planning application, the Proposals would have formed part of the ancillary infrastructure associated

with solar development. The Proposals are now being brought forward to assist in the efficient management of the energy generated by the solar farm to the grid, and are therefore still considered ancillary infrastructure to the operation of the solar farm.

6.2.29 The principle of a renewable energy and low carbon project in this location has already been established through the approval of the existing solar farm. Therefore, as ancillary infrastructure to the solar farm, the Proposals are considered appropriate in principle within this location.

6.2.30 As such, it is considered that the location of the Proposals in the open countryside, beside an operational solar farm, is considered appropriate in terms of planning policy and guidance.

6.3 Landscape and Visual Impacts

6.3.1 The Proposals will be located adjacent to the operational solar farm, contained within the landscape by the Ancient Woodland to the east and north. Therefore, there are no anticipated wider landscape views due to the screening of the Proposals by the existing solar farm infrastructure and the trees to the east and north.

6.3.2 The WS 12/56 Public Rights of Way (PROW) is noted to the south of the Site, but is not likely to be adversely affected as the views of the Proposals will be in the context of the existing solar farm, which is an established part of the landscape (insofar as its limited visibility allows it to be perceived). Thick hedge appears to line the PROW and form a visual buffer between the PROW and the solar farm, and therefore views of the Proposals are not likely to be noteworthy.

6.3.3 There are no other relevant landscape designations on or near the Site which could be impacted by the Proposals. Furthermore, it is considered that there would be no noteworthy impact on registered parks and gardens, conservations areas or nature conservation areas/designations.

6.3.4 In terms of current site conditions and landscape features, the Site is enclosed by the existing operational solar farm. This has limited, if any, material visibility in the wider area. In terms of planning decision making, this is reflected by the approval of the existing solar farm.

6.3.5 In terms of the decision-making process relating to the design and location of the Proposals, the BESS will be located in the north-eastern corner of an existing field in the centre of the solar farm, and mostly screened by the woodland to the north and east. The location is well screened and characterised by the existing solar farm. It is also influenced by the agricultural buildings and installations to the east and north-east. The Proposals are required to improve the efficient management of energy generated by the solar farm, and as such, the Site is considered a suitable and logical location for the Proposals.

6.3.6 The limited height and footprint of the Proposals (noting that all cabling between the main portion of the Site and the point of connection to the west will be underground) means they will not be visible from Whitley Wood Farm to the north, or the dwellings to the east near Whitley Farm and Ben Ash Farm.

6.3.7 There will be no visibility from the settlements in the wider area.

6.3.8 In terms of cumulative impacts, it is considered that the only impact will be the combined impact with the adjacent operational solar farm. However, as noted above, the Site is well screened within the solar farm, which in turn is well screened and contained within the wider landscape. As such, it is considered that there would be very limited, if any, cumulative landscape and visual impacts as a result of the Proposals in conjunction with the operational solar farm (or other such developments in the wider area).

6.3.9 The nearest other solar farm to the Site is the operational solar farm c. 1.88km to the south-west at Land North Of Butleigh Drove, Butleigh Drove, Pedwell, Somerset (planning ref: 2019/1513/VRC, originally approved under 2013/1189). On account of the distance between the Site and the operational solar farm, the well enclosed location of the Site, the topography and the existing screening between the two schemes, there are no cumulative landscape and visual impacts anticipated as a result of the Proposals.

6.3.10 The Landscape and Visual Assessment (LVA) that accompanied the original application (Ref: 2013/1515) summarised the location of the solar farm to be:

> "discrete, being well screened by topography, surrounding hedgerows and woodland blocks. There are virtually no long-distance views of the site from the north due to the plateau topography and a small number of woodland blocks, including Whitley Wood.
>
> …
>
> The majority of views of the site are from the close proximity public right of way running along the south and west of the site… these views overlook only a portion of the site and are partially obscured by the surrounding hedgerow and woodland. The existing solar panels in the north east corner of the site are not visible from these locations".

6.3.11 Within Section 5 of the Council's Landscape Character Appraisal (2021), the impact of renewable energy developments in the district has been assessed, and concludes that "None of the sites noted in the fieldwork stage were seen from elevated panoramic views", and that "many of the existing facilities are set into the existing field pattern, with tall hedges providing reasonable screening". As the Site was constructed in 2014 it is likely that it formed part of the existing facilities assessed within the appraisal.

6.3.12 The Site lies within Landscape Character Area E3: The Polden Ridge, which is characterised by an undulating landscape with extensive woodland blocks and other areas of smaller coverage. This has been taken into consideration when locating the Proposals, to ensure they are appropriately located within the existing landscape.

6.3.13 The Proposals support the LPP1's strategic objective to "Maintain and Enhance the Quality of the Local Environment and Contribute to International Climate Change Goals" by ensuring the Proposals are appropriately located within the landscape to minimise visual impacts, and also make efficient use of the land near the solar farm.

6.3.14 The Proposals have been located with an appreciation of the built and natural context of their locality recognising that distinctive street scenes, townscapes, views, scenery, boundary walls or hedges, trees, rights of way and other features collectively generate a distinct sense of place and local identity. Therefore, they are considered to comply with Policy DP1: Local Identity and Distinctiveness. The limited degree of harm to the landscape, including potential partial views from the PROW are considered to be outweighed by the wider benefits to the overall aim to decarbonise the grid, and render the electricity system more flexible and efficient.

6.3.15 Policy DP4: Mendip's Landscapes is complied with as the Proposals do not degrade the quality of the local landscape, and measures have been taken to minimise negative impacts, and biodiversity measures are in place to off-set any negative ecology impacts (this will be further discussed in section 6.4 below).

6.3.16 Policy DP7: Design and Amenity of New Development requires Proposals to demonstrate that their scale, mass, form and layout is appropriate to the local context. It is considered the Proposals comply with this policy as they are sited in the context of the existing solar farm which contains views to it, and is well screened by the trees / woodland to the north and east. Therefore, the Proposals are considered to be appropriately located to not result in adverse impacts on the landscape.

6.3.17 Overall, it is considered that the Proposals will result in very limited and contained landscape and visual impacts. This is predominantly because the Proposals are located mostly within the boundary of the existing operational solar farm, which has limited, if any, material visibility beyond its boundaries on account of the undulating landscape and the mature screening around the Site's boundaries and in its immediate vicinity.

6.3.18 It is also considered that the Proposals comply with Paragraph 158 of the NPPF as the landscape and visual impacts are acceptable. They comply with Paragraph 130, as they are sympathetic to local character and their landscape setting. Paragraph 174 is complied with as the intrinsic character and beauty of the countryside as well as trees and woodland, are recognised and protected.

6.3.19 In conclusion and based on the above, it is considered that the landscape and visual impacts of the Proposals, including cumulative impacts, are minimal and the Proposals comply with the relevant planning policy and guidance.

6.4 Ecology and Biodiversity

6.4.1 An Ecological Appraisal (EA) and BNG calculation has been undertaken by Quantock Ecology which assesses the impact of the Proposals on biodiversity and ecology in and around the Site.

6.4.2 The EA states that the Site comprises a field of poor quality, semi-improved grassland, with areas of marshy grassland and hardstanding.

6.4.3 There are no protected or important botanical habitats on the Site, and so no mitigation is required in this regard. Furthermore, the Site does not offer habitat to support large populations of rare and/or protected invertebrates, barn owls, or other protected, terrestrial mammals such as otters, water voles or dormice.

6.4.4 Precautionary construction measures will be adopted to ensure badgers, amphibians, reptiles and bats will not be impacted by the Proposed development.

6.4.5 Lighting as part of the Proposals will comprise of small, downward directional, LED lights which will be manually operated for emergency or maintenance use only, as also stated under Paragraph 5.13 of this PDAS. Therefore, it is concluded that no further bat surveys are required.

6.4.6 Trenches dug will be covered at night or have a rough sawn plank placed in them to act as a ramp for badgers or wildlife which may fall in.

6.4.7 Reasonable Avoidance Measures will be implemented during the construction and decommissioning of the Proposals, and the grassland will be maintained at a short sward length before and during construction to minimise the likelihood of newts and amphibians on the Site. Should Great Crested Newts be found on site, a licence would be sought prior to continuing construction.

6.4.8 Construction works will be undertaken outside of the nesting bird season where possible (March to August inclusive). Where this is not possible, the Site will be checked for ground nesting birds by an experienced ecologist immediately prior to the works commencing.

6.4.9 The EA and the BNG propose ecology improvements which would deliver a minimum of 10% BNG. This includes the maintenance and improvement of a strip of grassland within the Site boundary as neutral grassland, and the improvement of the marshy grassland to the south of the Site as ‘other neutral grassland’, to encourage invertebrate diversity.

6.4.10 Overall, the Proposals will not impact existing habitats and species, and no further surveys are required. Reasonable avoidance measures, as set out in the EA, will be complied with during construction. The Proposals provide a BNG and improve the overall ecological conditions in and around the Site.

6.4.11 In terms of Paragraph 174 of the NPPF, the Proposals recognise the wider benefits of ecosystems and seek to minimise the impacts on biodiversity, ensuring there is minimal impact to ecological networks that are more resilient to current and future pressures, and result in a minor impact on the grassland which is of lower biodiversity value.

6.4.12 With regards to Paragraph 180 of the NPPF, as a consequence of the Proposals there will be no significant harm to biodiversity and ecology and any harm will be mitigated. There will be no loss or inappropriate deterioration of irreplaceable habitats including trees, and any minor harm is clearly outweighed by the substantial benefits of the Proposals.

6.4.13 In terms of the PPG Section "Natural Environment", paragraph 018 is complied with as an ecological survey has been undertaken in advance of a planning application to assess significant impacts on biodiversity, and mitigate those.

6.4.14 Based on the findings of the ecology report, it is also considered the Proposals will comply with Policy DP5: Biodiversity and Ecological Networks of the LPP1 as the Proposals ensure the protection and conservation of the nearby Ancient Woodland, and will not cause harm to protected or priority species. The Proposals will also provide a BNG uplift as part of the Proposals.

6.4.15 It is therefore considered that any less than substantial harm to ecology is outweighed by the benefits derived from the Proposals in assisting to balance the grid, and support the UK's energy transition to net zero.

6.5 Residential Amenity and Noise

6.5.1 The nearest residential dwelling to the Proposals is Whitley Wood Farm to the north of the Site.

6.5.2 An independent Noise Impact Assessment (NIA), including a background noise assessment, has been undertaken by 24 Acoustics to assist in calculating the likely impact of different BESS technology on dwellings. The NIA accompanies this planning application.

6.5.3 The NIA concludes that the noise levels at the nearest dwellings would be acceptable during night-time and day-time periods.

6.5.4 The NIA is based on the most up to date noise data available for BESS technology, and is considered to model a worst-case scenario. The NIA also does not take current natural buffers between the Proposals and the nearest

dwelling into account, most noticeably the woodland, which would act to minimise the noise of the Proposals.

6.5.5 Moreover, increasingly manufacturers are providing noise reduction mitigation as part of the BESS solutions coming forwards, and therefore it is considered that the Proposals will not exceed the noise levels set out within the NIA at the nearest dwellings, which are considered to be acceptable.

6.5.6 Therefore, it is considered that the Proposals will not result in material adverse impacts to residential amenity with regards to noise. The noise levels can be controlled through Condition if necessary.

6.5.7 Lighting will be low-level, above / near the substation which will be manually operated, small and downward directional (refer to Paragraph 5.13), and as recommended within the Ecological Appraisal.

6.5.8 The existing CCTV will be relocated within the re-aligned fence to ensure that it serves to monitor the BESS and the operational solar farm.

6.5.9 There are no further other significant impacts anticipated on residential or public amenity, and therefore the Proposals are considered appropriate.

6.5.10 The Proposals are considered comply with Policy DP7: Design and Amenity of New Development and Policy DP8: Environmental Protection as they do not give rise to unacceptable adverse environmental impacts on ambient noise levels, light pollution, residential amenity and public health and safety. The amenity of nearby users such as PROW users and dwellings has been considered, and it is concluded that the impacts to them will not be significant. Moreover, appropriate crime prevention measures have been incorporated as part of the design to ensure they are safe.

6.6 Heritage

6.6.1 The nearest heritage assets are located to the south and west of the Site. The nearest comprising the Grade II Listed Lockhill Hall on Bath Road (including the Grade II Listed roadside infrastructure including, inter alia, gates and a lamp overthrow), and the Grade II Listed Milestone at NGR ST 4500 on Lynch Road to the south. These are located a minimum of 880m away from the Site and the Proposals, and it is considered that due to the distance and topography between them, the Proposals will result in negligible, if any, harm to the heritage assets.

6.6.2 Due to the size and scale of the Proposals, and their location within the existing approved solar farm away from nearby heritage designations, impacts on heritage are considered to be less than substantial, if negligible.

6.6.3 Due to the shallow nature of the Proposals, a less than substantial harm on archaeology is anticipated as a consequence of the works as they will not cause significant disturbance to the ground, and therefore buried archaeology.

6.6.4 Therefore, it is considered the Proposals adhere to Policy DP3: Heritage Conservation as the Proposals preserve and will not impact nearby designated and non-designated heritage assets.

6.7 Highways

6.7.1 The Site will be accessed off Whitley Road to the north and follow the existing, purpose-built, solar farm access track directly into the Site, as approved for construction / maintenance / decommissioning of the solar farm and associated infrastructure under the original consents (Refs: 2013/1515 and 01/13/00015). Construction is likely to be undertaken over a month, and the trips required for the construction of the Proposals will not be significant.

6.7.2 Construction / decommissioning traffic will access the Site directly off a primary route, which is considered appropriate for the short-term nature of the construction phase.

6.7.3 Therefore, the proposed access route complies with Policy DP9: Transport Impact of New Development as it comprises safe and satisfactory access for the necessary traffic generated by the Proposals, and will avoid causing traffic or environmental problems within the wider transport network. It also does not generate any requirement for transport improvements which would harm the character or locality of the area.

6.8 Further Material Considerations

Flooding and Drainage

6.8.1 The Site lies within Flood Zone 1, and is therefore the sequentially preferrable location. The footprint of the concrete pads on which the BESS will be located is minor, and therefore it is considered the impact on flooding and drainage resulting from the Proposals will be negligible.

6.8.2 The access track will be constructed using permeable crushed stone, as per the original permission, to allow for water to infiltrate into the ground, and reduce the impact on surface water run-off.

6.8.3 The Proposals adhere to Development Policy 23: Managing Flood Risk and as the Proposals have followed a sequential approach to flood risk management, and are necessary to support and improve the efficient operation of the solar farm, and management of the energy to and from the grid.

Cumulative Impacts

6.8.4 As previously mentioned in Section 6.3 of this PDAS, the Site lies mostly within the boundary of the operational solar farm. The nearest solar farm to the Site is the operational solar farm c. 1.88km to the south-west at Land North Of Butleigh Drove, Butleigh Drove, Pedwell, Somerset (planning ref: 2019/1513/VRC, originally approved under 2013/1189).

6.8.5 The Proposals will be predominantly screened by existing trees and hedges, and will appear to form part of the infrastructure associated with the existing solar farm. The location is also contained by the existing solar farm, minimising views from the PROW to the south. Therefore, there are no cumulative views of the Site with other development from nearby receptors. The existing solar farms are now also operational, and the nearby solar arrays have also been built; therefore, there are no cumulative traffic or construction impacts anticipated, and any cumulative noise impacts resulting from the Proposals as well as existing infrastructure has been assessed as part of the NIA submitted.

Land Use

6.8.6 Land grade does not appear to have been a noteworthy issue when the operational solar farm was approved.

6.8.7 It is considered that as the Proposals improve the existing solar farm's capacity to efficiently manage demand and supply of energy to the grid, and are also in similar nature to the existing solar farm in terms of its reversible and temporary nature, they are also appropriate in the proposed location. As previously mentioned, it is considered that had the Proposals formed part of the associated infrastructure of the solar farm at the time of submission, they would likely have been considered appropriate as an ancillary part of the solar farm.

6.8.8 If development is located on greenfield land, PPG (Paragraph 013) for renewable energy requires local planning authorities to consider whether the Proposed use of agricultural land has been shown to be necessary; and whether the Proposals allow for continued agricultural use where applicable and / or encourage biodiversity improvements around the Proposals. In this case, the land around the solar panels is presently being utilised for sheep grazing, and the Proposals will not impact the ability of the land to continue to be farmed as such. Therefore, the Proposals allow for continued agricultural use in and around the solar farm and BESS compound, and a BNG uplift will be delivered as part of the Proposals: therefore, meeting both the requirements stated in the PPG.

7. Conclusion

7.1 To conclude, the Proposals are being brought forward as part of a national effort to decarbonise the UK's power system, and balance the energy supply by storing excess power and releasing it into the grid at times of peak demand. The need for BESS has been stressed most recently within the UK Government's Net Zero Strategy, as well as their Ten Point Plan to a Green Industrial Revolution, which are supported within the principles set out in the Environmental Charter published by the Council, and also by the Council declaring a Climate Emergency. This should be afforded significant weight.

7.2 The Proposals comply with relevant policy and guidance, and are appropriately located within the existing solar farm demise, supporting the ability of the solar farm and the grid to manage demand and supply of energy.

7.3 It is considered that the landscape and visual impacts of the Proposals, including cumulative impacts, are minimal and the Proposals comply with the relevant planning policy and guidance.

7.4 The Proposals deliver a BNG, and any negative impacts on biodiversity or ecology have been assessed by an independent ecologist, who concluded there will be no significant impacts resulting from the Proposals, and any impacts can be mitigated and managed.

7.5 Any noise emitted from the BESS will be acceptable at the nearest dwelling, and this can be secured by condition if necessary. The impacts on residential amenity will therefore be negligible.

7.6 There will be no harm on designated and non-designated heritage assets, and there will be no unacceptable increased risk of flooding on the Site as a result of the Proposals.

7.7 Based on the content of this PDAS, as well as the information which accompanies this application, it is considered that the Proposals comply with the development plan when read as a whole, as well as other policy and guidance including the NPPF and the PPG, and therefore planning permission should be granted.

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