

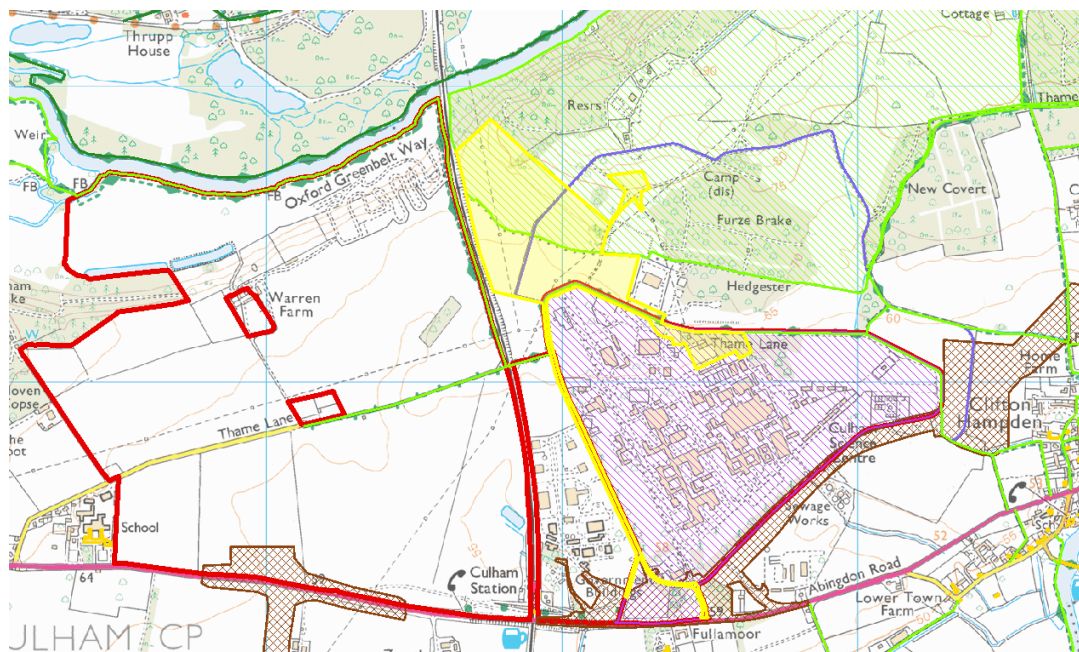
South Oxfordshire District Council – Delegated Report

APPLICATION NO.	P24/S1498/FUL
SITE	Land to the north of the Culham Science Centre Thame Lane near Clifton Hampden, OX14 3GY
PROPOSAL	The development of a Battery Energy Storage System (BESS), comprising a 500 megawatt (MW) battery storage facility with associated infrastructure, access and landscaping, with a connection into the Culham Jet National Grid substation.(A hard copy of the Environmental Statement can be viewed at South Oxfordshire District Council, Abbey House Abbey Close Abingdon OX14 3JE).REPRESENTATIONS IN WRITING BY 28 JUNE 2024
AMENDMENTS	
APPLICANT	Culham Storage Limited
APPLICATION TYPE	FULL APPLICATION
REGISTERED	9.5.2024
TARGET DECISION DATE	29.8.2024
PARISH	CULHAM
WARD MEMBER(S)	Sam Casey-Rerhaye
OFFICER	Ben Duffy

1. INTRODUCTION AND PROPOSAL

- 1.1. The proposed development site is located adjacent to the northern boundary of Culham Science Centre. The site covers around 26.8 hectares and comprises open fields, a tarmac track known as Thame Lane and a farm track. The site is accessed from the east, south-east and south by the Thame Lane, which connects to Abingdon Road to the south.
- 1.2. There are a number of relevant designations that impact the site. The site lies within the Oxford Green Belt and part of the site falls within the Nuneham House Registered Park and Garden. The site is also adjacent to the Nuneham Courtenay Conservation Area. There are a number of listed buildings nearby, including Culham Station Ticket Office, Thame Lane Bridge, Fullamoor Farmhouse and the Europa School. Most of the site constitutes Best and Most Versatile agricultural land, being largely Grade 2 classification. The site lies within Flood Zone 1. The Didcot to Oxford rail line is adjacent to the western side of the site. The South Oxfordshire Local Plan 2035 has allocated 3,500 homes on an area to the south-west of the site. The map below shows the site location in yellow, with the red outline indicating the South Oxfordshire 2035 Local Plan STRAT9 housing allocation and the STRAT8 Culham Science Centre allocation shown with pink line hatching. The Registered Park and Garden is illustrated with green line hatching and Public Rights of Way by the purple line and the light green lines.

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- 1.3. The proposal is for a 500-MegaWatt (MW) Battery Energy Storage System (BESS) on a site area of approximately 27 hectares, with 296 sound insulated lithium-ion battery units housed within standard shipping containers and 37 larger noise insulated inverter houses to accommodate the inverters and transformers. Access to the site would be from the Abingdon Road onto Station Road and then would run through the Culham No 1 industrial site up to Thame Lane. The proposals show that there would be 14 parking spaces provided. A landscape scheme is proposed to screen the proposed development and enhance the biodiversity of the local area which includes a new tree belt screen. The applicants also state that they are looking into options regarding the selling of Biodiversity Net Gain units from the site.
- 1.4. The proposal includes an electricity substation compound which would include a connection tower somewhere between 12.5m and 14m in height. The Environmental Statement states that the grid connection tower would be 14m high however the elevations plan indicates equipment height of no more than 12.5m (This was not included in the description of the development). The substation and connection tower would be located within the Registered Park and Garden and would be a permanent feature, as opposed to the 40-year timeframe expected for the battery storage containers. There would also be 3 water storage tanks, a storm water attenuation lagoon, a 2-metre-high earth bund along the western boundary of the site and fencing erected at various heights around the site.
- 1.5. The development is proposed to have a lifespan of 40 years. After which it would be decommissioned, and the BESS removed. The grid connection tower would remain however, as would the landscape scheme.
- 1.6. Pre-application advice was provided on the proposals in September 2022, reference P22/S2503/PEJ.

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2. SUMMARY OF CONSULTATIONS & REPRESENTATIONS

A summary of the consultation responses is provided below. The full responses can be viewed on the Council's website under the planning reference number.

Clifton Hampden Parish Council	<p>Objection</p> <p>The Parish Council recognises the need for BESS plants to regulate the National Grid but believes that this Green Belt site is unsuitable. The site would be an eyesore affecting views from the Thames path, Nuneham Park and the village.</p> <p>Despite reassurances about the potential fire risk, more information is needed about accessibility for fire engines and hydrants. Release of poisonous gases is another potential hazard which makes this site near the Culham Science Centre and its children's nursery undesirable.</p>
Culham Parish Council	<p>Objection</p> <p>Inappropriate development that would be harmful to the openness of the Green Belt and would conflict with the stated purposes of the Green Belt, particularly in assisting in safeguarding the countryside from encroachment.</p> <p>Significant adverse impact on the Grade 1 Nuneham Courtenay (NC) Registered Park and Garden and NC Conservation Area.</p> <p>Loss of BMV agricultural land throughout the lifetime of the proposed development (40 years) with no justification for this loss provided in the application.</p> <p>Significant potential for adverse impacts on the existing road users of the A415 and the local town of Abingdon and villages of Culham, Clifton Hampden etc during the construction phase of the proposed development. Further, there is the potential that these impacts may overlap with the continued development/expansion at Culham Campus AND the proposed HIF1 road infrastructure project resulting in significant adverse cumulative impacts.</p> <p>Need not justified: Culham Science Centre / Campus has an existing approval for a 250MW BESS within its boundaries.</p> <p>Better alternative sites in other areas of "Science Vale", e.g. the site of Didcot B.</p> <p>Omission in the EIA: archaeological survey and cumulative impact assessment.</p>

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	Largest BESS in the country – a potential fire risk next to a site which breeds radioactive Tritium and adjacent to area for planned new homes.
Nuneham Courtenay Parish Council	No comments received
Network Rail	<p>No objection</p> <p>No objection in principle to the proposal but due to the proposal being next to Network Rail land and our infrastructure and to ensure that no part of the development adversely impacts the safety, operation and integrity of the operational railway.</p> <p>Any works on this land will need to be undertaken following engagement with Asset Protection to determine the interface with Network Rail assets, buried or otherwise and by entering into a Basic Asset Protection Agreement, if required, with a minimum of 3 months' notice before works start.</p> <p>Soakaways / attenuation ponds / septic tanks etc, as a means of storm/surface water disposal must not be constructed near/within 5 metres of Network Rail's boundary or at any point which could adversely affect the stability of Network Rail's property/infrastructure. Storm/surface water must not be discharged onto Network Rail's property or into Network Rail's culverts or drains. Network Rail's drainage system(s) are not to be compromised by any work(s). Suitable drainage or other works must be provided and maintained by the Developer to prevent surface water flows or run-off onto Network Rail's property / infrastructure. Ground levels – if altered, to be such that water flows away from the railway. Drainage does not show up on Buried service checks.</p> <p>The developers should be made aware that Network Rail needs to be consulted on any alterations to ground levels. No excavations should be carried out near railway embankments, retaining walls or bridges.</p> <p>Where trees/shrubs are to be planted adjacent to the railway boundary these shrubs should be positioned at a minimum distance greater than their predicted mature height from the boundary. Certain broad leaf deciduous species should not be planted adjacent to the railway boundary. We would wish to be involved in the approval of any landscaping scheme adjacent to the railway.</p>
Heritage Officer (South and Vale)	The proposed development would result in significant adverse impacts on designated heritage assets, in particular the Nuneham Courtenay Registered Park and Garden.

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	<p>This application would have an unacceptable impact on the visual integrity of the countryside both within and in the setting of the RPG contrary to the Local Plan.</p> <p>The proposal is contrary to local plan policy and the NPPF as it will result in harm to the significance of designated heritage assets.</p> <p>If you are minded to approve this application you must be certain that there are considerable public benefits to the proposal that significantly outweigh the identified harm to heritage assets.</p>
Ecology Team (South and Vale)	<p>Holding Objection</p> <p>I am satisfied that the proposed development is unlikely to give rise to any impacts on statutory designed sites (SSSI, SAC). Further consideration under the HRA process is not required.</p> <p>Impacts on the Furze Brake Local Wildlife Site (LWS), which would undermine the identified value of the site are unlikely to occur. The tree removal plan of the AIA does not show any loss of trees which form part of the LWS. Construction control measures, secured through a construction environmental management plan (CEMP) can ensure sensitive works in close proximity to important ecological receptors, such as the LWS.</p> <p>Other locally designated sites, such as Radley Gravel Pits LWS (site code: 59I03), located to the north of the River Thames, are very unlikely to be adversely impacted.</p> <p>None of the habitats on-site have been identified as a material constraint to development (priority habitat), and in this regard Policy ENV2 is not engaged with regards to habitats.</p> <p>The proposed development would result in the loss of an outlier (not a main) badger sett (s5). The loss of this sett would require a licence from Natural England to be lawful, but I am confident that such a licence would be granted.</p>
Didcot Garden Town Team	<p>Supportive</p> <p>Aligns with Didcot Garden Town principles.</p> <p>Didcot Garden Town is the gateway to Science Vale and Culham Science Centre is a key site within Science Vale. The application for a battery energy storage system connected to the National Grid is a step towards achieving net zero and will provide more flexible, resilient and stable energy systems for Culham Science Centre.</p>
Drainage - (South & Vale)	<p>Holding Objection</p>

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	<p>In general the Flood Risk Assessment confirms that the proposed scheme is at low risk of flooding from fluvial and surface water sources.</p> <p>The strategy references a series of swales or interception channels down gradient of the battery storage units with a storage capacity of 250m³. This should be clearly shown on the drainage strategy drawing.</p> <p>The outfall to a watercourse appears to be located on the opposite side of the railway to the site. Further detail is needed on this to include levels, means and agreement to install a connection under the railway and confirmation that the applicant has rights to connect surface water to this watercourse. As this is shown to be outside of the site boundary, confirmation of connection rights and ability to make this connection are required.</p>
Forestry Officer (South and Vale)	<p>Holding objection</p> <p>No objection in principle. It seeks to remove very few trees to facilitate a major development of key local importance and offers a significant increase in tree planting by way of mitigation and improvement in line with Policies ENV1, DES1, and DES2 of the South Oxfordshire Local Plan 2035 and the Council's Joint Design Guide 2022, promoting the integration of the proposals within the context and character of the landscape.</p> <p>However, there are some apparent discrepancies within the Arboricultural submissions.</p>
Oxfordshire County Council - Highways	<p>Objection</p> <p>The applicant has confirmed in the Planning, Design and Access Statement (para 8.24) that once installed, the development will be unmanned and will generate very minimal extra traffic movements. The impact of the proposed development, during the operational phase, will therefore be minimal. They will therefore be no or very little impact on the local highway network.</p> <p>During the construction phase is development is expected to generate circa 50 Heavy Duty Vehicles (HDVs) however the applicant states that this is the peak and will be confined to the early earthworks / civils phase of the project.</p> <p>The applicant states that during the operational phase a total of 14 car parking spaces will be provided. The planning design and access statement states that the proposed developments when operational will generate 'very minimal extra traffic movements'. The applicant is therefore required to provide justification for the proposed 14 parking spaces.</p>

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	The submitted CTMP is acceptable to the County.
Oxfordshire County Council – Lead Local Flood Authority	<p>No Objection</p> <p>The FRA is consistent with the LLFA's requirements. Nothing further is required.</p>
Oxfordshire County Council – Archaeology	<p>Objection</p> <p>The results of an archaeological trenched evaluation will need to be submitted in line with the National Planning Policy Framework (2023), paragraph 200, prior to the determination of this planning application.</p> <p>We have previously provided archaeological advice on this site in a pre-application response (E0700179/2022/031212) in July 2022 where we advised that an archaeological desk-based assessment and the results of an archaeological evaluation would need to be submitted with any planning application for the site. We have also provided advice on the scope of the Environmental Impact Assessment (EIA) as part of the formal scoping opinion sought by the applicant (P22/S4551/SCO) in January 2023 where we further reiterated that a programme of archaeological trenched evaluation would need to be undertaken.</p> <p>An appropriately amended WSI for the required archaeological trenched evaluation works will therefore need to be submitted and agreed.</p>
Oxfordshire County Council – Fire Safety	<p>No Objection</p> <p>From reviewing the proposal details, it is advised where required, works will be subject to a Building Regulations application and subsequent statutory consultation with the fire service, to ensure compliance with the functional requirements of The Building Regulations.</p> <p>In addition, it is advised that once the site is completed, the Responsible Person makes contact with Oxfordshire Fire and Rescue Service so that site specific risk information can be gathered.</p>
Designing Out Crime Officer	<p>No Objection</p> <p>Details regarding security and perimeter fencing have been provided which are satisfactory. In addition, whilst connected to the National Grid, this development will not be classed as Critical national infrastructure. As such, I do not object to this application and have no comments to make.</p>

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Active Travel England	<p>No Objection</p> <p>Active Travel England is content with the development proposed.</p>
Environmental Protection Team	<p>No Objection</p>
Contaminated Land	<p>No Objection</p>
Landscape Architect (South and Vale)	<p>Holding Objection</p> <p>I have significant concerns about the landscape and visual impact of the proposals.</p> <p>The current proposals would be contrary to policy ENV1 of the local plan as well as policies DES1 and DES2 which require development to respect local landscape character. The proposals would result in a loss of visual openness in the Green Belt, contrary to local plan policy STRAT 6.</p> <p>The connection tower should not be located within the Registered Park and Garden.</p> <p>The proposed mounding would mean blocking current open views towards the parkland from the allocated site and the Oxford Greenbelt Way.</p> <p>It is clear from the LVIA summary that landscape issues have not been considered in the choice of location for the proposed BESS.</p>
Air Quality	<p>No Objection</p>
Historic England (South East)	<p>Historic England understands the need for infrastructure to support the transition to net zero energy production in the UK. There is existing electricity infrastructure in this area which we understand makes it a suitable place for more. However, we identify clear harm to a highly significant registered parkland through the position of the proposed development and which is wholly exacerbated by the very poor landscaping proposals and we have deep concerns about the proposals.</p> <p>We recommend the Council interrogate the location of the connection tower and whether it can be moved to reduce harm, amongst other possible amendments to layout. Where residual harm remains, we strongly urge the Council to seek meaningful heritage benefits that should then be weighed in the balance against the great weight that should be given to conservation of the registered parkland.</p>

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	<p>Your authority should take these representations into account and seek amendments, safeguards or further information as set out in our advice.</p>
The Gardens Trust	<p>Objection</p> <p>We have considered the online documentation and strongly object to this proposal which will cause substantial and permanent harm to the Grade I listed RPG and its setting.</p> <p>The separate proposal for a solar farm (P24/S1336/FUL) to the north of the RPG together with the existing permission for another extensive solar farm at Nineveh Farm outside Nuneham Courtenay will have a cumulative effect on the surrounding landscape.</p> <p>The BESS storage facility will have a damaging effect during both the commissioning and deconstruction phases. In addition, the mitigation measures proposed: the additional planting, the raised bund, the ponds, and the acoustic fencing will all increase rather than minimise the damage to the historic character of this sensitive designed landscape.</p>
Environment Agency	<p>No Objection</p>
CPRE	<p>Objection</p> <p>The LUC Oxfordshire Green Belt Study showed that this site as part of Broad Area 6:</p> <ul style="list-style-type: none"> - rated highly in meeting Purpose 3 of the Green Belt – to safeguard the countryside from encroachment. - rated highly in meeting Purpose 4: To preserve the setting and special character of historic towns Development should be restricted to areas identified under STRAT 8 Culham Science Centre & STRAT 9 Land adjacent to Culham Science Centre. <p>Also, object to this application as it will result in the loss of Best & Most Versatile agricultural land (Grade 2 & 3a) for over 40 years.</p> <p>Therefore, this application is unacceptable in principle, the development would cause a significantly adverse effect to the Green Belt, landscape, heritage and amenity assets, contrary to local & national planning policies, including but not limited to LP2035 DES9. Policy DES9: Renewable and Low Carbon Energy paragraphs i, ii, iii) and v).</p>
CPRE Rights of Way	<p>Object</p> <p>The development should be located to the south of Thame Lane so that the lane's amenity value can be retained.</p>

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Residents (3 responses)	<ul style="list-style-type: none"> Concerns over noise pollution. Would like to see further evidence. Already unacceptable level of continuous industrial harm from cooling fans and electrical equipment at the Culham site. Concern over visual impact on the countryside. No concerns over proposal.
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3. RELEVANT PLANNING HISTORY

Application Number	Description of development	Decision and date
P24/S1759/O	Culham No1 Industrial Site. Demolition of buildings and outline planning application (with all matters reserved) for up to 115,000sq.m (GIA) of employment floorspace [Use Class E(g), B2 and B8]; up to 2,500sq.m (GIA) of hotel floorspace and other uses.	Under consideration
P23/S2952/PEM	Proposed 10MW Battery Energy Storage System (BESS)	Advice provided (27/10/2023)
P22/S2503/PEJ	Development of a 500mw Battery Storage Facility with associated infrastructure, access and landscaping. (Additional information received 1 August 2022)	Advice provided (13/09/2022)
P22/S1410/FUL	Culham Science Centre Erection of a Fusion Demonstration Plant with ancillary office space, parking, landscaping and associated infrastructure, including plant and machinery.	Approved (28/03/2023)
P21/S0509/RM	Culham Science Centre: Submission of reserved matters pursuant to outline planning permission reference P16/S1753/O	Approved (02/12/2021)
P16/S2368/FUL	Culham Science Centre: Development of an Energy Storage Facility (Sui Generis) comprising: a battery building to house plant, an administrative building, security fencing and landscaping; the excavation of land for the installation of a 250MW High Voltage Transformer; extension to existing electricity substation to provide additional plant equipment and building; and the provision of underground	Approved (15/11/2016)

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cabling between the battery building, transformer and the substation extension.

[P16/S1753/O](#)

Culham Science Centre: Erection of up to 9,000 sq metres of Class B1 (office / research) development. (As amplified by Arboricultural Development Report dated April 2016).

Approved
(19/07/2016)

[P13/S2287/O](#)

Culham Science Centre: Outline application for erection of up to 9,000 sq metres of Class B1 development. As amplified by additional information (email from Kemp & Kemp dated 04.11.2013 and 24.11.2013).

Approved
(14/02/2014)

4. ENVIRONMENTAL IMPACT ASSESSMENT

4.1. This is EIA development and the application is accompanied by an Environmental Statement (ES) and addendums. The following areas of potential impact were assessed:

- Cultural Heritage;
- Land Take and Soils;
- Climate Change; and
- Effect Interactions.

5. POLICY & GUIDANCE

Development Plan Policies

South Oxfordshire Local Plan 2035 (SOLP) Policies:

- Policy STRAT1: The Overall Strategy
- Policy STRAT2: Meeting our Housing and Employment Needs
- Policy STRAT4: Strategic Development
- Policy STRAT6: Green Belt
- Policy STRAT8: Culham Science Centre
- Policy STRAT9: Land Adjacent to Culham Science Centre
- Policy EMP1: The Amount and Distribution of New Employment Land
- Policy EMP2: Range, Size and Mix of Employment Premises
- Policy EMP10: Development in Rural Areas
- Policy INF1: Infrastructure Provision
- Policy TRANS1a: Supporting Strategic Transport Investment Across the Oxford to Cambridge Arc
- Policy TRANS1b: Supporting Strategic Transport Investment
- Policy TRANS2: Promoting Sustainable Transport and Accessibility
- Policy TRANS4: Transport Assessments, Transport Statements and Travel Plans
- Policy TRANS5: Consideration of Development Proposals
- Policy TRANS7: Development Generating New Lorry Movements

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- Policy ENV1: Landscape and Countryside
- Policy ENV2: Biodiversity - Designated Sites, Priority Habitats and Species
- Policy ENV3: Biodiversity
- Policy ENV5: Green Infrastructure in New Developments
- Policy ENV6: Historic Environment
- Policy ENV7: Listed Buildings
- Policy ENV8: Conservation Areas
- Policy ENV9: Archaeology and Scheduled Monuments
- Policy ENV10: Historic Battlefields, Registered Parks and Gardens and Historic Landscapes
- Policy ENV11: Pollution - Impact from Existing and/ or Previous Land Uses on New Development (Potential Receptors of Pollution)
- Policy ENV12: Pollution - Impact of Development on Human Health, the Natural Environment and/or Local Amenity (Potential Sources of Pollution)
- Policy EP1: Air Quality
- Policy EP2: Hazardous Substances
- Policy EP3: Waste Collection and Recycling
- Policy EP4: Flood Risk
- Policy DES1: Delivering High Quality Development
- Policy DES2: Enhancing Local Character
- Policy DES3: Design and Access Statements
- Policy DES4: Masterplans for Allocated Sites and Major Development
- Policy DES6: Residential Amenity
- Policy DES7: Efficient Use of Resources
- Policy DES8: Promoting Sustainable Design
- Policy DES9: Renewable and Low Carbon Energy
- Policy DES10: Carbon Reduction

Emerging Joint Local Plan 2041

The Council is preparing a Joint Local Plan covering South Oxfordshire and Vale of White Horse, which when adopted will replace the existing local plan. Currently at the Regulation 18 stage, the Joint Local Plan Preferred Options January 2024 has limited weight when making planning decisions. The starting point for decision taking will remain the policies in the current adopted plan.

Neighbourhood Plan

Part of the proposed development site falls within the Culham Neighbourhood Plan's designated area. The following policies from the Culham Neighbourhood Plan are considered relevant:

- Policy CUL6: Local Heritage Assets
- Policy CUL7: Nature Recovery and Climate Change
- Policy CUL8: Sustainable Travel
- Policy CUL9: Zero carbon buildings
- Policy CUL10: Light pollution

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The site is adjacent to the Clifton Hampden Neighbourhood Plan's designated area, but does not fall within it.

Other Planning Policy Guidance/Documents

South Oxfordshire and Vale of White Horse Joint Design Guide 2022

National Planning Policy Framework and Planning Practice Guidance

Overarching National Policy Statement for Energy (EN-1)

Ministerial Statement 15 May 2024 Solar and protecting our Food Security and Best and Most Versatile (BMV) Land

Other Relevant Legislation:

Human Rights Act 1998

The provisions of the Human Rights Act 1998 have been taken into account in the processing of the application and the preparation of this report.

Equality Act 2010

In determining this planning application the Council has regard to its equalities obligations including its obligations under Section 149 of the Equality Act 2010.

6. PLANNING CONSIDERATIONS

6.1. The relevant planning considerations are the following:

- Principle of development
- Green Belt
- Landscape
- Heritage
- Agricultural Land
- Site Selection
- Archaeology
- Highways and parking

Principle of development

6.2. There is a strong national and international agenda to reduce CO2 emissions through the generation of energy from renewable sources. National planning policy on renewable energy development is set out in the National Planning Policy Framework (NPPF) at paragraphs 157 - 164 and Planning Practice Guidance: Renewable and Low Carbon Energy (PPG).

6.3. In respect of renewable energy, the NPPF at paragraph 157, sets out its support for renewable energy development. It states that:

“The planning system should support the transition to a low carbon future in a changing climate. It should help to support renewable and low carbon energy and associated infrastructure.”

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6.4. The NPPF continues at para. 163:

“When determining applications for renewable and low carbon development, local planning authorities should:

- a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions;*
- b) approve the application if the impacts are (or can be made) acceptable;*
- c) Once suitable areas for renewable or low carbon energy have been identified in plans, local planning authorities should expect subsequent applications for commercial scale projects outside of these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas, and*
- d) in the case of applications for the repowering and life-extension of existing renewable sites, give significant weight to the benefits of utilising an established site, and approve the proposal if its impacts are or can be made acceptable.”*

6.5. The PPG explains that: “The National Planning Policy Framework explains that all communities have a responsibility to help increase the use and supply of green energy, but this does not mean that the need for renewable energy automatically overrides environmental protections and the planning concerns of local communities. As with other types of development, it is important that the planning concerns of local communities are properly heard in matters that directly affect them.” The PPG adds that “renewable energy developments should be acceptable for their location.”

6.6. In short national guidance provides positive encouragement for renewable energy projects, stating that the planning system should support the transition to a low carbon future and should support renewable and low carbon energy and associated infrastructure. When determining applications for renewable and low carbon development local planning authorities should approve such applications if its impacts are or can be made acceptable. In principle, therefore, there is policy support for development of this nature. However, the overall acceptability of development is dependent on other material considerations, including the principle of the development in the Green Belt.

6.7. The South Oxfordshire Local Plan 2035 (Local Plan) sets out the local approach to projects of this nature. Policy STRAT1 in the South Oxfordshire Local Plan 2035 (Local Plan) sets out the overall strategy for development in the district. It states that

“focusing major new development in Science Vale including sustainable growth at Didcot Garden Town and Culham so that this area can play an enhanced role in providing homes, jobs and services with improved transport connectivity”

6.8. To support this aim in the overall strategy of focusing major development in the Science Vale allocations are made at Culham and the surrounding area.

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These include the two strategic site allocations at Culham through policies STRAT8 and STRAT9.

- 6.9. Policy STRAT2 in the Local Plan sets out the housing and employment requirements that the plan is required to meet, with policy STRAT4 setting out how these requirements will be met:

“New development will be provided within strategic allocations in order to deliver the scale and distribution of development set out in Policies STRAT1 and STRAT2”.

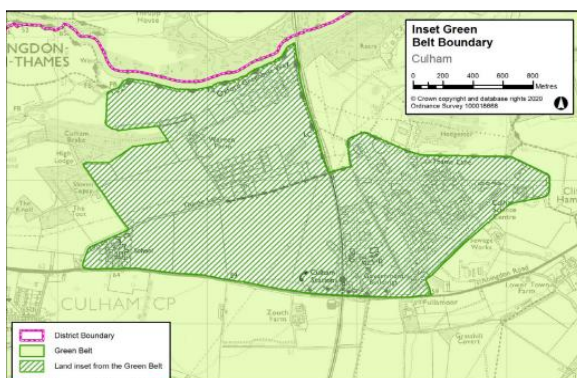
- 6.10. Policy STRAT 8 relates to the Culham Science Centre. It provides support for development proposals within the centre, stating:

“Proposals for the redevelopment and intensification of the Culham Science Centre will be supported where this does not have an unacceptable visual impact, particularly on the character and appearance of the surrounding countryside and the Registered Parkland associated with Nuneham House”.

- 6.11. Policy STRAT8 removes Culham Science Centre from the Green Belt to support the Centre as a key location for employment development.

- 6.12. Policy STRAT9 sets out that land adjacent to Culham Science Centre is allocated to deliver approximately 3,500 homes and a net increase of employment land of at least 7.3 hectares. The site is also removed from the Green Belt. The site area removed from the Green Belt by STRAT8 and STRAT9 is set out below, as well as the indicative concept plan set out within the Local Plan for the sites.

Green Belt Inset Boundary



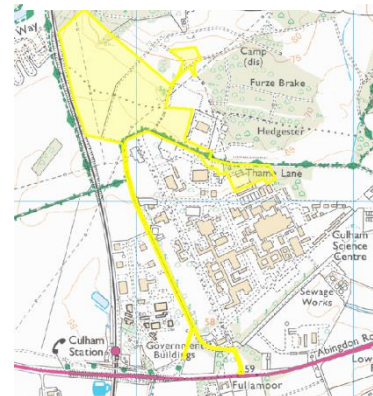
Indicative Concept Plan



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6.13. The area shaded yellow on the location plan shows the proposed development site, showing it is not within the strategic allocation sites of STRAT8 and 9, apart from the route of access to the site which is part of STRAT9. It is also worth noting that an outline application for commercial development is currently under consideration for the parcel of land that the road is on, under reference P24/S1759/O. It does not give an indication of site layout and internal road form, but this may impact how access would be gained to the site. There is also a proposed underground cable connection to an existing substation on the Culham Science Centre site.

Site Location Plan



6.14. The proposal is for a Battery Energy Storage System (BESS), which the applicants have proposed will provide a critical supporting role in the delivery of low carbon energy generation. This is through the provision of energy storage, which will enable an efficient and flexible energy supply to meet peak energy demands within the local power network. Policy DES9 in the Local Plan sets out support for schemes delivering renewable and low carbon energy generation and associated infrastructure. This is provided they do not cause significantly adverse effect on areas including:

- landscape, both designated AONB and locally valued, biodiversity, including protected habitats and species and Conservation Target Areas,
- the historic environment, both designated and non-designated assets, including development within their setting
- openness of the Green Belt.

6.15. Both national and local policy are supportive of schemes that will assist in the transition to a low carbon future. A BESS is not a renewable or low carbon energy generating scheme, and there are no controls over the source of energy the BESS will store. Therefore, energy stored in the BESS could be from either renewable or fossil fuel sources. However, a BESS does comprise critical infrastructure for maintaining the existing stability of the grid, as well as enabling a greater supply of intermittent renewable energy to be stored and released on the local and national grid network. In this regard, the proposed development would support a low carbon future. Therefore, the principle of such development is supported. However the site is not allocated for this purpose and the planning application for the BESS needs to be considered against the criteria in policy DES9 of the Local Plan, the Local Plan as a whole and alongside national policy and guidance which states that “*renewable energy developments should be acceptable for their location*”. These matters are discussed below.

7. Green Belt

7.1. A key consideration in whether this location is acceptable for this development is its location in the Oxford Green Belt. The NPPF sets out that great

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importance is placed on Green Belts and their aim of preventing urban sprawl by keeping land permanently open. It states that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances (VSC). A consultation has begun on a revised NPPF, with the consultation closing on the 24 September 2024. The draft text sets out amendments to the NPPF's Green Belt Chapter and others. However, as this revised version of the NPPF is still in draft and may change prior to any update, very little weight is afforded to it.

7.2. Paragraph 143 of the NPPF sets out the five purposes of the Green Belt, which are:

- (a) to check the unrestricted sprawl of large built-up areas;
- (b) to prevent neighbouring towns merging into one another;
- (c) to assist in safeguarding the countryside from encroachment;
- (d) to preserve the setting and special character of historic towns; and
- (e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

7.3. Paragraph 153 of the NPPF states that:

“When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. ‘Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations.’”

7.4. Paragraph 154 of the NPPF sets out what is considered appropriate and inappropriate development in the Green Belt: The proposed development does not meet the definition of any of the exceptions and is therefore inappropriate development in the Green Belt. Very special circumstances would need to be demonstrated to warrant the schemes approval.

7.5. Paragraph 156 of the NPPF states that the wider environmental benefits associated with increased production of energy from renewable sources may constitute very special circumstances. These proposals would not lead to the production of renewable energy but they would help transition to a low carbon future with the provision of energy storage.

7.6. Planning Practice Guidance sets out what factors can be taken into account when considering the impact of development on the openness of the Green Belt. It states that:

“Assessing the impact of a proposal on the openness of the Green Belt, where it is relevant to do so, requires a judgment based on the circumstances of the case. By way of example, the courts have identified a number of matters which may need to be taken into account in making this assessment. These include, but are not limited to:

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- *openness is capable of having both spatial and visual aspects – in other words, the visual impact of the proposal may be relevant, as could its volume;*
- *the duration of the development, and its remediability – taking into account any provisions to return land to its original state or to an equivalent (or improved) state of openness; and*
- *the degree of activity likely to be generated, such as traffic generation.”*

7.7. Policy STRAT6 of the Local Plan sets out that the Green Belt will be protected from harmful development and development will be restricted in accordance with the NPPF. Point Two of the policy also makes provisions for the alterations to the Green Belt boundary as set out in the strategic policies, and that this development should deliver compensatory improvements to the environmental quality and accessibility of the remaining Green Belt land. This demonstrates the Local Plan's clear focus on protecting the remaining Green Belt.

7.8. The applicant has provided a Green Belt Assessment of the proposals and a Landscape and Visual Impact Assessment (LVIA). It sets out that the built area of batteries and substation, which will utilise an area of circa 7 hectares, will be located in the southern part of the proposal site and adjacent to the land recently removed from the Green Belt by the Local Plan. Landscaping features have been proposed with the aim of screening the BESS and enhancing the setting of the Registered Park and Garden (RPG). Detail on the impact to the RPG is given in the heritage section. These features included:

- New hedgerows around the battery compound;
- New woodland planting along the western boundary and to the north of the substation building; and
- new tree belts in the north and along the boundary with the battery compound set in new scrubland.

7.9. The applicant's Green Belt Assessment states it recognises that there will be a spatial impact from the proposals, but it considers this is a limited developed area of the site and the comparative loss of openness would be small when comparing to the adjacent Local Plan strategic allocations. The Local Plan removed nearly 800 hectares of land from the Oxford Green Belt, with the strategic allocations at Culham comprising nearly 300 hectares of this. This significant area of land removed from the Green Belt heightens the importance of the remaining Green Belt land in fulfilling its designated function. The argument that this development would be small in comparison is not persuasive, as it could be replicated for any development that is smaller than that which is set out in the Local Plan. The impact on the spatial and visual openness of the Green Belt by these proposals is what is required to be considered. Spatially, this would be an urbanising development of circa 7 hectares on agricultural fields in the Green Belt.

7.10. In terms of proposals for mitigating the visual impact the assessment explains that a key part of the proposals is the screening, which will mean that views of the proposed buildings will be limited. Particularly from within the Green Belt from the North and East, this is considered to limit the impacts to

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the openness of the Green Belt. There are also proposed landscape enhancements in the northeast of the proposed site and within the listed RPG. In terms of landscape, the applicant's Green Belt Assessment considers that these landscape enhancements will provide a landscape benefit. Conversely, the Landscape Officer has concluded that the proposals would result in a loss of visual openness of the Green Belt, with further detail discussed below.

- 7.11. Discussion on whether very special circumstances exist will take place in the planning balance section, as it is also linked to other planning considerations.

8. Landscape

- 8.1. Policy ENV1 of the Local Plan seeks to protect South Oxfordshire's landscape and countryside from harmful development. It states that "*Development will only be permitted where it protects and, where possible enhances, features that contribute to the nature and quality of South Oxfordshire's landscapes*"

- 8.2. The Council's Landscape Officer has provided an assessment of the proposals, where significant concerns have been raised. This is due to the extension of industrial development into the open countryside and the views of the development that would extend well into the parkland. This would have a harmful impact on the nature and quality of the landscape.

The site lies largely within SODC landscape character area 2¹, Nuneham Courtney Ridge, and within landscape type LCT15, Parkland and Estate Farmland. This comprises the formal C18 designed parkland and associated estate land of Nuneham House. The site lies largely within the 'estate' landscape characterised by large blocks of woodland, open grassland and mature trees. The LCT has a rural, unspoilt and generally enclosed character, with strong woodland and tree cover. The site is adjacent to the CSC site, therefore the character is influenced to some extent by the adjacent development.

- 8.3. The area of site proposed for battery storage provides a valuable transition between the registered parkland and the science centre site. The battery storage covers a considerable area and would be industrial in appearance, spreading industrial development into the countryside. The Cross-section A Plan shows that the mounding proposed would not screen the inverter houses or battery units from the rising parkland to the north, almost all of which would be visible at year 1, and for some time until planting had become established, particularly in winter. This can be seen in the applicants LVIA photomontage 14. Views would extend well into the parkland, as can be seen in the applicant's LVIA view 17.

- 8.4. Whilst significant areas of mounding, and woodland, scrub and tree planting are proposed, planting would take time to become established sufficiently to

¹ SODC Landscape Character Assessment, https://data.southoxon.gov.uk/ccm/support/dynamic_serve.jsp?ID=1670533770&CODE=120D6FB08E4B9319A601AE1E696CF070

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screen the lower elements of the proposals, the taller elements would remain visible in the long term, as shown on the cross section plans submitted with the application. In addition, whilst the woodland proposed along the southern edge of the parkland is in a similar location to a belt of woodland shown on OS maps of 1898 - 1942, it does not replicate this, being much more informal in layout, and with the addition of mounding.

- 8.5. The plans submitted by the applicant shows the proposed connection tower, circa 14m high, and associated substation with equipment over 7m high, within the Grade 1 registered parkland. This would have a significant adverse effect on the landscape character of the parkland, which would remain in perpetuity. The fact that there is an existing pylon route through the parkland does not make it acceptable to introduce additional intrusive features.
- 8.6. Views from the west of the site would be largely screened by mounding, however this would mean blocking current open views towards the parkland from the STRAT8 allocation site and the Oxford Greenbelt Way. No mounding is proposed on the southern side indicating that the 4m high acoustic fence would be visible with the top of the inverter units seen above and the substation clearly visible. These would all remain visible in the long term. The substation, with equipment up to 9m high, would also close proximity and intrusive upon the Oxford Greenbelt Way, as it runs on the northern side of the CSC site. Only limited mitigation (a hedge on the southern side) is proposed.
- 8.7. The BESS development area would be open to views from the Oxford Greenbelt Way on the eastern side, in the vicinity of an existing pylon. The Greenbelt Way is a long-distance path and a valuable recreational resource, whilst its value will increase with the new residential allocation. Although it is affected by the adjacent science centre site, there are open views from the path towards the parkland which would be replaced by open views of battery storage and a substation. Mitigation proposals alongside the path are inadequate, with limited set back and a lack of tree planting. A considerable length of the path both west and east of the railway line would be adversely affected.
- 8.8. In order to extend the existing substation, the proposals would remove trees which help to filter existing views into the CSC site, these would not be replaced, resulting in a detrimental effect due both to their loss and to the additional area of substation with no screening. No mitigation is proposed for this.
- 8.9. Whilst it is noted in the LVIA that public access would be allowed to the area of site within the RPG, It is also noted that it is planned to sell off excess BNG units in this area; this is unlikely to be compatible with recreational use.

The Culham Neighbourhood Plan sets out in its policy CUL5 that *“Development proposals in Culham will be supported provided they have full regard to the essential design considerations and general design principles set out in the Culham Design Code”*. The Design Code states at OVS2.0.1 that:

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“All development should contribute to the maintenance and delivery of a high quality multi-functional network of Green and Blue Infrastructure in the Parish to provide long-term benefits for people, places and nature, in ways that reinforce local character.”

- 8.10. As has been stated above, the proposals would have a detrimental impact on the character of the area and would impact peoples use of the Public Rights of Way. The Council consider that the proposals are not in accordance with policy CUL5 of the Culham Neighbourhood Plan.
- 8.11. Overall, the Council consider the adverse effects of the development to be greater than stated. The Council also consider the impact on the visual openness of the Green Belt to be underestimated. The site can be appreciated as an open landscape in views from a considerable length of the Greenbelt Way and from the eastern edge of the residential allocation. The development and associated mitigation will block view with the proposed tall structures remaining visible in the long term. This would result in a distinct loss of visual openness. It would also result in significant adverse impact to the landscape character within a registered parkland as well as to views from a long-distance path. The mitigation proposed adjacent to the long-distance path is inadequate, with limited set back and boundaries left open or with minimal planting whilst the noise fencing would also be intrusive.
- 8.12. The impacts from the proposals are contrary to Local Plan policy ENV1 which seeks to protect and enhance the landscape and countryside from harmful development. They are also contrary to policies DES1 and DES2, which seek to protect and enhance local character.

9. Heritage

- 9.1. Part of the site is located within the Grade I RPG of Nuneham House at Nuneham Courtenay, with part of the site outside of the RPG being within its setting. The registered park is a highly significant C18 parkland landscape and pleasure grounds containing a number of listed structures, follies and buildings including the Grade II* Nuneham House.
- 9.2. The development is also within the immediate setting of the Nuneham Courtenay Conservation Area and in the wider setting of the Grade II listed Thame Lane Bridge, the Grade II listed Europa School and the village conservation area of Clifton Hampden.
- 9.3. The NPPF sets out that heritage assets *“are an irreplaceable resource and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations”*. Paragraph 200 *“states local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting”*. The applicants have

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submitted an assessment through the EIA as to the heritage assets affected and what they consider the impact to be.

9.4. Paragraph 203 of the NPPF states:

“In determining applications, local planning authorities should take account of:
a) the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
b) the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
c) the desirability of new development making a positive contribution to local character and distinctiveness.”

9.5. In accordance with the NPPF, great weight should be given to the conservation of a heritage asset, and the greater the significance of the asset the greater the weight to be given. This is irrespective of the level of harm identified. Substantial harm to or loss of heritage assets of Grade II listed buildings or Grade II RPG's should be exceptional. Whereas substantial harm to or loss of heritage assets of Grade I and II* listed buildings and RPG's should be wholly exceptional. Proposals that would lead to substantial harm of a designated heritage asset should be refused, unless it is demonstrated that there are substantial public benefits. Where a proposal will lead to less than substantial harm this harm should be weighed against the public benefits of the proposal.

9.6. Policy ENV6, ENV7, ENV8 and ENV10 set out specific heritage considerations, and where proposals that impact heritage assets may or may not be supported. In particular, Policy ENV10 provides the Local Plan's approach to development affecting RPG's.

9.7. As part of the application the applicant has provided an assessment of the proposals impact on Cultural Heritage. This is part of the Environmental Statement. This sets out the methodology for their assessment and the impact the proposals may have. The heritage assets that have been assessed are the following:

- Nuneham Courtenay Registered Park and Garden (Grade I)
- Nuneham Courtenay Conservation Area
- Culham Station Ticket Office (Grade II*)
- Thame Lane Bridge (Grade II)
- Fullamoor Farmhouse (Grade II)

9.8. The Environmental Statement assesses the impact on Nuneham Courtenay RPG and Conservation Area to be significant during the construction and decommissioning phases of the development, with the impact being not significant when to BESS is in places and active. The impact on the other identified heritage assets is considered to be not significant. The significant impact is related to the alteration of the setting due to construction works. The Environmental Statement (ES) also looks at the cumulative effect of development in the area, concluding that alongside the Local Plan strategic allocation STRAT9 that there is the potential for significant adverse cumulative

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effects during the operational phase. The ES does go on to state though that the extent of mitigation at this time is unknown.

9.9. The Council's Heritage officer Council have made their own assessment of the proposals. The application proposes extensive mitigating features including new planting within the RPG atop a large bund structure, new ponds and extensive areas of 4m high acoustic fencing. The application documents suggest this proposed planting has been informed by historic maps and photographs of the parkland which show some areas of planting in this area historically. However, the addition of a bund to elevate the planting to create a larger visual screen of the development from within the designated landscape that changes the historic topography of the area and the way in which the edge of the parkland was a softer transition into the open countryside that it joins. It is notable that this area once contained the southern drive to the main house, providing a transition between the agricultural lands and parkland; there is no evidence that a solid raised embankment of planting existed here to screen the surrounding agricultural lands.

9.10. The Heritage officer is concerned that the proposed mitigating planting would itself harm the character of the RPG by introducing an alien feature in the form of a raised woodland bank, cutting off the more open arable areas of the parkland from the open surroundings which are experienced both from within the RPG looking out to the south and south-west as well as in open views from towards the RPG.

9.11. In addition, none of the proposed mitigation can offer meaningful softening to the proposed 14m high transmission tower compound which will be a substantial change in appearance and character of this part of the RPG. The area requires new tarmac road to provide access to the area and a wide area of hardstanding to accommodate the infrastructure. This would be considerably larger in area than the existing pylons to which it is to connect to and to which it has been compared. This tower compound will be visible from a wide range of aspects both within the RPG and in its setting looking towards the rise of Nuneham Courtenay from public vantage points extensively across the south.

9.12. It is considered that the harmful impact of the proposal is downplayed in the submitted Cultural Heritage chapter of the ES, owing to the assertion that the development is 'temporary'. Forty years is a considerable period of time in which the context of the RPG will be significantly impacted in a negative way. This is also particularly concerning when mitigating planting is not anticipated to be effective for 10-20 years and the compound will remain a moderate adverse impact on the character of the parkland, even after 20 years when the landscaping is hoped to reach maturity (as stated in para 8.11 of the LVIA). It is also noted that the proposed transmission tower is not intended to be temporary and that this 14m high structure will be a permanent addition to the RPG. This indicates the proposal will result in a high level of harm to the RPG that proposed mitigation cannot overcome.

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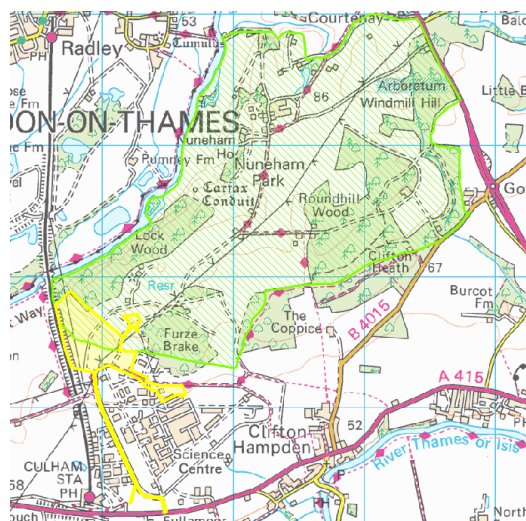
- 9.13. The Cultural Heritage chapter in the application's ES notes that there is likely to be a cumulative negative impact to the RPG from both this proposal and the provisions of strategic allocations, the mitigation of which is outside the remit of this application. Paragraph 3.157 of the Cultural Heritage Chapter notes that the development will have significant adverse effects on the designated heritage assets. The statement also notes that there will be a cumulative impact because of it adjoining areas of strategic allocations (STRAT9). What the chapter fails to recognise is that areas not removed from the Green Belt (including this application site) and areas of STRAT9 allocated site are set aside to provide Green Belt protection and enhancement to the RPG which the proposed development would fail to achieve. The strategic site allocations here are specifically required to avoid unacceptable visual impact on the RPG (see SOLP Policy STRAT8:1).
- 9.14. The Council are also concerned that justification is also provided in the form of comparison with the appearance of neighbouring CSC. However, Local Plan Policies seek to contain built form within the allocated area of CSC in order to preserve and better enhance the setting of the RPG given existing areas of degradation from built form.
- 9.15. Historic England (HE) have provided their advice on the significance of Nuneham Courtenay and its surroundings, and how the proposals would effect these. They advise that "*Nuneham is one of the best examples in Britain of a planned estate village*". HE find:
- "Culham Science Centre, some 180m south of the registered parkland, together with existing electricity infrastructure in the form of pylons and substations has altered the historical environs of the estate, the remaining largely undeveloped space between the parkland and the CSC allows it to remain a separate entity that isn't encroached upon by industrial development. This matters because it allows for a degree of appreciation of the parkland as a separate, private estate."*
- 9.16. HE identify clear harm to a highly significant registered parkland from these proposals, which is exacerbated by the very poor landscaping proposals. They have deep concerns about these proposals.
- 9.17. The Gardens Trust have also provided their view on the proposals. They have stated that they strongly object to the proposals which they consider will cause substantial and permanent harm to the RPG and its setting. They consider the BESS will have a damaging effect in the commissioning and deconstruction phases and that the mitigation measure proposed will increase rather than reduce the level of harm.
- 9.18. A key part of considering the heritage proposal is determining the likely level of harm proposals would introduce. PPG sets out that "*What matters in assessing whether a proposal might cause harm is the impact on the significance of the heritage asset*". PPG and Case law has indicated that the test of 'substantial' harm has a high bar. PPG states "partial destruction is

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likely to have a considerable impact but, depending on the circumstances, it may still be less than substantial harm or conceivably not harmful at all”.

9.19. Of the potential effects on heritage assets The RPG has been the focus of comments received from consultees. All parties agree that there would be harm to the RPG. The Council and HE consider the proposals would erode the layout of the estate and its transition to the open countryside, whilst also introducing a 14m tower into the RPG, alongside harmful landscaping. In addition, the built form of the BESS would have an urbanising effect on the RPG’s setting.

9.20. However, the Council consider taking into account the extent of the RPG and the proposals there would be the partial destruction of the RPG, but it would not completely undermine the reasons for its significance. The map illustrates the application site in yellow with the RPG in green. The setting of the Grade II* Nuneham House and All Saints Church, a key part of the RPG, would be negatively impacted but there are no impacts on these structures themselves. Additionally, though there are also harmful impacts on surround listed structures such as Culham Station Ticket Office and Thame Lane Bridge, as well as the cumulative impact associated with the STRAT9 housing allocation.



9.21. Taking into account the evidence and representations received as part of this planning application, The Council consider that the harm to the Grade 1 RPG and its setting is less than substantial, though towards the higher end of this measure. Great weight should be given to the conservation of heritage assets and the more important the asset the greater the weight should be, Nuneham Courtenay RPG is a Grade 1 listed asset, which the NPPF describes as of the highest significance, with Historic England describing it as one of the best examples in England of a planned estate. Therefore very significant weight should be given to its conservation. In accordance with national and local policy, the public benefits would need to be substantial and outweigh the harm, with a clear and convincing justification. This will be discussed further as part of the planning balance.

10. Cumulative Impact

10.1. The applicants have provided an assessment of the cumulative impacts as part of the Environmental Statement. This provides the applicants assessment of any significant impacts that the proposed development may have in combination with other nearby schemes. These impacts are considered for the matters assessed by the Environmental Statement. Namely, Cultural Heritage, Land Take and Soils, and Climate Change.

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- 10.2. Paragraph 3.157 of the Cultural Heritage Chapter notes that the development will have significant adverse effects on the designated heritage assets. The statement also notes that there will be a cumulative impact as a result of it adjoining areas of strategic allocations (STRAT9). What the chapter fails to recognise is that areas not removed from the Green Belt (including this application site) and areas of STRAT9 allocated site are set aside to provide Green Belt protection and enhancement to the RPG which the proposed development would fail to achieve. The strategic site allocations here are specifically required to avoid unacceptable visual impact on the RPG.
- 10.3. In regard to landscape impacts, the Council consider the proposals result in further loss of visually open Green Belt land and detriment to its landscape and visual quality, including when viewed from the adjacent STRAT 9 residential development site. Recent permitted developments on the northern edge of the CSC site include tree planting on the boundary which will ultimately help to screen and filter views of the development within it. In order to extend the existing substation, the proposals would remove trees which help to filter existing views into the CSC site, these would not be replaced, resulting in a detrimental effect due both to their loss and to the additional area of substation with no screening. There would therefore be a negative cumulative effect from these developments, with this development negating mitigation proposed from development on the STRAT9 allocation.

11. Agricultural Land

- 11.1. The applicant has submitted an Agricultural Land Classification Survey as part of the application. This assessment concludes that the land is mainly grade 2 with areas of grade 3a. There is also a small section of grade 3b. In percentages it is 88% grade 2, 11% grade 3a, and 1% grade 3b.
- 11.2. The Environmental Statement sets out that the loss of the agricultural land will only be during the lifetime of the development, which is 40 years. Following this the development will be decommissioned and returned to its original state, apart from an area of around 0.5 hectares of grade 2 agricultural land, where the connection tower will remain.
- 11.3. The NPPF states at paragraph 180 that planning decisions should contribute and enhance the natural and local environment, including best and most versatile (BMV) agricultural land. BMV agricultural land is classified as land in grades 1, 2 and 3a. These development proposals prevent the use of an area for agricultural land which is currently harvested for hay and silage use. Though the applicants describe this as temporary it will be for a significant period of time, 40 years and for an approximate 0.5-hectare parcel of land this will be permanent.
- 11.4. The Written Ministerial Statement (WMS) published in May 2024, titled '*Solar and protecting our Food Security and Best and Most Versatile (BMV) Land*', sets out the importance of food security. It states that

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“due weight needs to be given to the proposed use of Best and Most Versatile land when considering whether planning consent should be granted for solar developments. For all applicants the highest quality agricultural land is least appropriate for solar development and as the land grade increases, there is a greater onus on developers to show that the use of higher quality land is necessary.”

- 11.5. Policy DES7 of the Local Plan relates to the efficient use of resources. Point seven of this policy states that development on BMV agricultural land should be avoided unless it is demonstrated to be the most sustainable choice from reasonable alternatives, by first using areas of poorer quality land in preference to that of a higher quality. The applicants have undertaken a site selection process that is discussed below.
- 11.6. The Council recognises that the proposals are not for a solar farm. However, as logically we have applied the benefits of this scheme in moving towards a net zero future. We must also apply this to disbenefits. The proposals would lead to a loss of circa 22 hectares of BMV agricultural land, which is to be weighed in the planning balance against the proposals, as it is contrary to national guidance.

12. Site Selection

- 12.1. Due to the harm identified in regard to Green Belt and Heritage matters, the proposed location of the development is required to be scrutinised. This is supported by case law on what is required to demonstrate ‘very special circumstances’ for development in the Green Belt, as well as it logically forming part of any clear and convincing justification for the public benefits outweighing heritage harm.
- 12.2. The applicants have submitted a site selection report as part of the application. This sets out the locational requirements of the development and why the proposed site was chosen. Such an exercise is helpful particularly in view of the constraints facing this site.
- 12.3. The proposed development seeks to provide support to the electricity transmission network of the UK. The transmission network consists of 275kV and 400kV transmission voltages. The transmission networks move large volumes of electricity at a national level from where it is generated to the main regional substations. For efficiency purposes and due to the long distances involved, this is done at high transmission voltages (275kV and 400kV). Transmission connection is the only connection method for large scale BESS.
- 12.4. The site selection had the following primary objectives:
- Locate in a region where there is a need for voltage and power flow support.
 - Connection to the National Grid transmission networks 275/400kV.

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- Available grid connection by 2030.
- Located within a heavily constrained transmission area.

12.5. There were also the following site-specific locational requirements:

- Adjacent to an existing National Grid substation to reduce the amount of overhead cabling or trenching linking to the substation and minimise electrical losses through the connection.
- Site size large enough to accommodate 500 MW BESS infrastructure – to optimise the capacity of the connection and to encourage investment to support the commercial viability of the scheme.
- Acceptability of environmental and planning constraints (e.g. Green Belt, agricultural land classification, ecological/landscape designations, heritage assets, flood risk, etc.)
- Physical and visual separation from residential properties and settlements.
- Ease of access to the site for construction – to reduce impacts to the local highway network and to reduce the construction timescale to help achieve 2026 grid connection.

12.6. The site selection paper goes onto identify why there is a need on the transmission system in this region and an agreement they have with the National Grid Electricity Transmission for a connection to the Culham Jet substation, with the agreement stating a connection date of 2027.

12.7. Four sites were assessed in order to identify the most appropriate site in this area. Site IS1 is within Culham Science Centre and previously had planning permission for a 200MW BESS. The site abuts the Culham Jet substation and provides the closest point of connection. However, the site has been discounted because of its size, it is not able to accommodate a 500MW BESS scheme and allow for the landscaping and BNG improvements proposed. Statera was also unable to contract with the landowners and the assessment states that the site performs no better in heritage landscape or ALC metrics than the site proposed.

12.8. Site IS2 is an area of approximately 16 ha and is located on land to the east of Culham Science Centre, within the Green Belt. The site has been discounted because of its proximity to residential dwellings and greater distance from the point of grid connection. The site performs no better in heritage, landscape and or ALC metrics than the site proposed.

12.9. Site IS3 is an area of approximately 14 ha and is located on land to the north of Culham Science Centre, within the Green Belt. Although well screened the northern 9ha of the site lies within the Nuneham Registered Park and gardens, leaving only 5ha of land out with the Park and Garden to develop in, which is not enough space for a 500MW BESS development.

12.10. Site IS4, the proposed site, is noted as being in the Green Belt, but away from existing settlements. It is stated as being only visible from a limited number of publicly accessible viewpoints. The assessment also highlights the

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heritage assets in the vicinity. The site is assessed as having the required 7 hectares need for the 500MW BESS.

12.11. Whilst the Site Selection Process Paper is helpful to understand why the proposed site was chosen. It does raise a number of concerns. Firstly, why only the Culham Substation was considered as an appropriate connection point. The reasoning has been set out in the site selection paper for the region and transmission line for the connection. However, there are other 400kV substations in the area that may or may not have been appropriate. For example, the Didcot or Cowley substation. However, there is no discussion of this. For instance, in 2022 a scheme for a solar farm and 49.99MW BESS was proposed at Burcot nearby (planning reference P22/S0960/FU) and the evidence submitted as part of this application argued that a connection to the Cowley substation was the only possible solution, as it was the only substation in the area that has capacity for new connections in advance of 2029. The information on different applications is inconsistent and as such would seem to indicate the possibility of other connections. The applicant has set out that they have an agreement with NGET for the connection, but there is no evidence as to whether an agreement could not be made on any other substation connection.

12.12. Site IS1 within Culham Science Centre, a site that previously had planning permission for a 200MW BESS, was discounted in part because it was not able to accommodate a 500MW BESS and allow for the landscaping and BNG improvements. However, it is the Council's view that as this site had planning permission, was already removed from the Green Belt, is not within in the RPG, this site, save for the lesser capacity is a preferable site to that proposed. Site IS2 has been removed in part because of its proximity to residential dwellings. However, the proposed site would likely be as close if not closer to residential dwellings once the STRAT9 allocation is built out.

12.13. Taking this into account, the site selection appears to be limited, and have some flaws in its methodology. The Council conclude that this undermines the case for there being 'very special circumstances' justifying development in the Green Belt. This also undermines the clear and convincing justification for the public benefits outweighing the harm to heritage assets.

13. Archaeology

13.1. In large part the heritage considerations set out above apply to archaeological considerations as well, so they will not be repeated here. There are specific aspects of the policy framework to consider though. The NPPF sets out at paragraph 200 that:

"Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation."

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13.2. The Cultural Heritage section of the Environmental Statement prepared by the applicant considers the potential archaeological impacts. The assessment is supported by a Desk-Based Assessment and two phases of geophysical survey. A programme of evaluation trial trenching is proposed which has been set out in Written Scheme of Investigations. Any potential effects are considered to occur during the enabling and construction works.

13.3. The Desk Based Assessment finds that:

“The site is predicted to contain archaeological remains potentially dating to the prehistoric and Romano-British periods. Aerial photographs, LiDAR images, and prior geophysical surveys identified new possible features that will need archaeological investigation in order to be defined and interpreted. These features are particularly clear in the southern portion of the site, which consists of the least previously impacted area by possible groundworks associated with the construction of an airfield in 1943. Groundworks associated with the proposed development have the potential to truncate or remove any surviving archaeological remains present within the site. It is anticipated that further archaeological investigation, in the form of an archaeological evaluation may be required to identify and record any archaeological remains affected by the development. The result of the evaluation would inform a suitable mitigation strategy, if required, intended to reduce, or remove, any archaeological impacts identified.”

13.4. Oxfordshire County Council’s Archaeologist has objected due to the lack of trial trenching and evaluation. OCC advice was also provided previously as part of a pre-application response and a scoping opinion on an Environmental Impact Assessment, where the applicant was advised that the results of a desk-based assessment and geophysical survey alone would not provide for a sufficient and suitably informed assessment of the potential archaeological resource within the site, an understanding as to its significance, and the likely effects of proposed development on that significance. The results of an archaeological evaluation would therefore need to be undertaken on the site, and the results of this agreed prior to the determination of the application. As this information has not been provided, and the County Archaeologist has been unable to assess the impacts of the development this therefore represents a reason for refusal.

14. Highways and parking

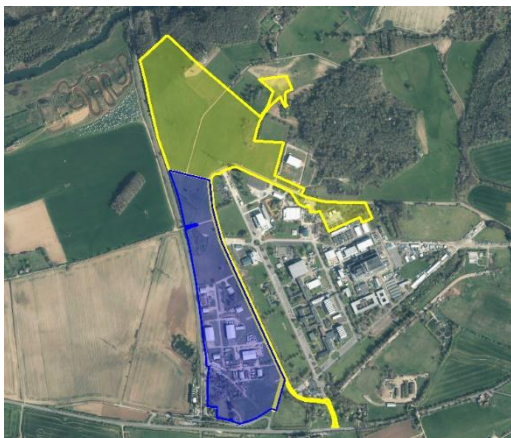
14.1. The proposed access to the site is via the A415 Abingdon Road and then using the eastern junction with Station Road. This will be both for the construction and operational phases. A transport note has been submitted detailing the appropriateness of this. The Highways Authority have confirmed they have no objection to this proposal and are content with the Construction Management Plan that has been submitted.

14.2. It is worth noting that an outline application for commercial development is currently under consideration for the parcel of land that the access road is on, under reference P24/S1759/O, as shown by the blue shaded area on the

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location plan below, with the yellow area being the proposal site. It does not give an indication of site layout and internal road form, but this may impact how access would be gained to the site. The Access and Movement Parameter Plan does provide the intention of access between this site and the CSC site being provided, the blue arrows on the plan indicating access point opportunities.

Location Plan



Access and Movement Plan



- 14.3. In respect of this scheme, the Highways Authority has raised a holding objection requesting justification for the provision of 14 parking spaces. This is due to the fact that during the operational phase there is expected to be very minimal extra traffic movements, with only 2 part time employees. It is considered that parking, both during construction and operational stages could be dealt with by condition.

15. Residential Amenity

- 15.1. Policy DES6 of the SOLP requires that development proposals demonstrate that they will not result in any adverse impacts on the amenity of neighbouring uses. To the south of the site lies Culham Science Centre, containing various commercial premises. To the north there is open land and woodland. To the west, there is the railway line and the STRAT9 housing allocation which has not yet commenced development. To the east is open land and woodland. There are no residential properties that are considered to be directly affected however representations have been made in respect of Noise, discussed below.

Noise

- 15.2. With regard to noise, a noise assessment has been submitted as part of the application which considers the noise that will be generated by the grid transformers, battery and inverter buildings. The report concludes that *“the levels of sound arising from the operation of the proposed development will not result in an adverse or significant adverse impact at any of the nearby noise sensitive receptors.”* These receptors included locations at Culham Science Centre and for the STRAT9 residential allocation, ensuring the sensitive neighbouring uses were covered.

16. Drainage and Flooding

- 16.1. Policy EP4 of the SOLP 2035 considers flood risk and sets out drainage requirements for new developments. The main site is located in Flood Zone 1 and therefore considered at low risk of fluvial flooding. Flooding from other forms has been considered in the Flood Risk Assessment Report. The Lead Local Flood Authority have no concerns with the proposal with regard to flooding and drainage. However, the LPA's Drainage Officer has raised some concerns.
- 16.2. These are that the strategy references a series of swales or interception channels down gradient of the battery storage units with a storage capacity of 250m³. This should be clearly shown on the drainage strategy drawing. In addition, the outfall to a watercourse appears to be located on the opposite side of the railway to the site. Further detail is needed on this to include levels, means and agreement to install a connection under the railway and confirmation that the applicant has rights to connect surface water to this watercourse. As this is shown to be outside of the site boundary, confirmation of connection rights and ability to make this connection are required.
- 16.3. Network Rail have provided advice that any works as part of this proposed scheme would need to be undertaken after engagement with their Asset Protection Team. They have advised that drainage systems should not be constructed within 5 metres of their boundary and should not discharge onto the railway line. This would appear to raise difficulties with the proposed drainage scheme as mentioned above. Network Rail would also need to be consulted on any changes to ground levels as well as providing advice on landscaping. These issues could be dealt with by way of condition.
- 16.4. As further information is required it is not known whether the drainage and flooding measures are acceptable. Hence there is a need to include a reason for refusal on that basis.

17. Ecology

- 17.1. The Council is satisfied that the proposed development is unlikely to give rise to any impacts on statutory designed sites or habitats. The proposed development would result in the loss of an outlier (not a main) badger sett (s5). The loss of this sett would require a licence from Natural England to be lawful, but the Council is confident that such a licence would be granted.
- 17.2. This planning application is subject to mandatory BNG, within the meaning of Schedule 7A of the TCPA 1990. Should planning permission be granted, that permission would be subject to the general biodiversity gain condition which requires discharging prior to commencement of development. Detail related to the post-development habitats and ongoing management is secured under the discharge of condition stage, pursuant to the general biodiversity gain condition. The development intends to undertake significant

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on-site habitat creation, the ongoing management and maintenance of these habitats should be secured with a s106 planning obligation.

- 17.3. The applicant wishes to explore the potential of selling excess onsite habitat gains on the BNG market. This would need to be secured through a planning obligation. Furthermore, the excess (over and above what is required to deliver 10% BNG for this development) habitat gains must be spatially ringfenced. Whilst this could be apposite benefit there is some doubt as to whether it is compatible with recreation with the RPG, as highlighted by the Landscape officer.
- 17.4. Additional information is required prior to determination on the baseline habitat condition, an updated BNG metric, a justification for the loss of medium distinctiveness habitats and additional plans for the purpose of using a planning obligation to secure onsite BNG for sale on the BNG market. As further information is required it is not known whether the ecology measures are acceptable. Hence there is a need to include a reason for refusal on that basis.

18. Trees

- 18.1. In regard to arboricultural issues, the Council has no in principle objection. The proposals seek to remove very few trees and offer a significant increase in tree planting. However, there are some apparent discrepancies within the Arboricultural submissions. The list of trees affected or removed in the AIA excludes G12, T8, T48, T49, T50, T51 & T52. But these trees are then shown as having a new below ground electrical supply laid through their RPA including a change of direction within the RPA likely requiring an open trench methodology. Additionally, it isn't clear why the proposals seek the removal of T17 & T18 English Oak, this should be better evidenced. Lastly, there is no mention of methodology surrounding the installation of new fencing within the RPA of retained trees. As there appear to be great lengths of fencing required all of which, independent of design, require concrete footings.
- 18.2. As further information is required it is not known whether the arboricultural measures are acceptable. Hence there is a need to include a reason for refusal on that basis.

19. Other Matters

- 19.1. Policy ENV12 of the SOLP 2035 is concerned with pollution that may occur from new development. Currently, DEFRA does not consider the need to regulate the operation of battery energy storage systems (BESS) facilities under the Environmental Permitting Regulations regime. These facilities also do not currently fall within the Control of Major Accident Hazards Regulations. Batteries have the potential to cause harm to the environment if the chemical contents escape from the casing. When a battery within a battery storage unit ceases to operate, it will need to be removed from site and dealt with in compliance with waste legislation. This would be secured by a condition requiring a method statement for decommissioning. The council's

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contaminated land officer has reviewed the scheme and has not raised any concerns.

- 19.2. There is a potential risk of fire with a BESS. This matter is covered by separate regulations. A Fire Liaison Framework sets out the assessment and actions that have been taken to understand and minimise this risk, as well as how it meets national safety standards. This framework has also been agreed with Oxfordshire Fire and Rescue Services.

20. Planning Balance

- 20.1. The proposals represent inappropriate development in the Green Belt and very special circumstances are required to be demonstrated.
- 20.2. In accordance with the NPPF substantial weight is given to the harm to the green belt, which is the harm the proposals would cause to the openness of the green belt by the encroachment of development into the countryside. The development will result in harmful spatial and visual impacts to the Green Belt, as identified above, contrary to Policies STRAT6 and DES9 of the Local Plan.
- 20.3. The impacts from the proposals are contrary to Local Plan policy ENV1 which seeks to protect and enhance the landscape and countryside from harmful development. They are also contrary to policies DES1 and DES2, which seek to protect and enhance local character. It would result in a significant adverse impact to the landscape character which weighs against the scheme.
- 20.4. The proposals have also been demonstrated to cause harm to a Grade 1 Registered Park and Garden and its setting, with a connection tower proposed in the RPG and the BESS being located on the edge of the RPG. The RPG is a heritage asset of the highest significance, its conservation should be given great weight. The weight to be given is high due to the asset's significance. The harm identified is less than substantial harm, though it is to the higher end of this measure. When weighed against the public benefit of a scheme that will assist the UK in moving to a net zero future, the Council find that the benefits do not outweigh the harm to this significant heritage asset, contrary to policies ENV6 and ENV10.
- 20.5. Significant weight is also given to the loss of agricultural land, which is categorised as best and most versatile. It is acknowledged that this is for a temporary period of 40 years, however this is a significant period of time in regard to food security and the weighs against the scheme. The loss of this BMV agricultural land is contrary to Policy DES7 of the Local Plan.
- 20.6. In favour of the development, very significant weight is given to the need for the BESS in terms of addressing climate change and energy security challenges. There are very limited socio-economic benefits arising from employment during construction and maintenance of the BESS.

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- 20.7. No weight is given to the proposed landscape mitigation measures as these in themselves introduce further harm in regard to the openness of the Green Belt and Heritage considerations. Additionally, no weight is given to the proposals for potentially excess biodiversity net gain as there is insufficient information on the baseline biodiversity, justification for loss of habitats, and concerns that selling excess BNG within the RPG would conflict with the recreational uses of the RPG, and potentially undermine the BNG.
- 20.8. The Council consider that the site selection process followed fails to reasonably demonstrate the proposed site is the most suitable location for the development taking into account the constraints on the site. Officers also concerned that one site was in part discounted due to its proximity to residential dwellings, when in fact the proposed site is likely to be located closer to residential dwellings once the STRAT9 allocation in the Local Plan is built out.
- 20.9. Overall, the Council consider that the harm caused by this proposal by reason of inappropriate development in the Green Belt, the loss of openness and visual impact in the Green Belt, harm to heritage assets and the landscape, and the loss of best and most versatile agricultural land are not outweighed by the very special circumstances and public benefits as set out above.

21. CONCLUSION

- 21.1. The proposed BESS would provide 500MW of energy storage which would allow the export of energy to be evened out across the peaks and troughs of generation and demand. This would be a significant contribution towards addressing the Climate Emergency that the Council has declared, and towards meeting local and national policy on reducing carbon emissions and addressing climate change.
- 21.2. However, it is established that the proposal comprises inappropriate development in the Green Belt. Case law has identified that BESS development will contribute to the UK's net zero goals and this may constitute the very special circumstances that might justify an inappropriate development such as this in the Green Belt.
- 21.3. The Council are aware of the current consultation on proposed changes to the NPPF. Changes have been proposed to both the Green Belt and Climate Change chapters. The assessment undertaken in this report would result in the same conclusions being found if decided under the draft NPPF, as very significant weight has been given to the proposals contribution to a net zero future.
- 21.4. In view of the harms identified in the report to Green Belt, Landscape, Heritage and BMV land, it is the Council's opinion that very special circumstances do not exist to enable the justification of this proposal. Furthermore the public benefits the proposal would bring do not outweigh the harm to heritage assets..

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21.5. There is also a lack of information necessary to assess the drainage proposals for the site and the impacts on archaeology which warrant further reasons for refusal.

21.6. Having assessed the application on its merits it is recommended that the application is refused.

22. RECOMMENDATION

That the application is refused for the following reasons:

1. Inappropriate development in the Green Belt

The development is inappropriate development in the Green Belt that would be harmful to the spatial and visual openness of the Green Belt and would conflict with the purposes of the Green Belt. This site additionally provides an important Green Belt function in relation to strategic sites removed from the Green Belt for development. The application does not constitute very special circumstances as required by the National Planning Policy Framework to outweigh the substantial harm to the openness of the Green Belt. As such, the proposal is contrary to the NPPF, and Policies STRAT6 and DES9 of the South Oxfordshire Local Plan 2035.

2. Landscape Harm

The site proposed for battery storage provides a valuable transition between the registered parkland and the Culham Science site. The battery storage is large scale, would be industrial in appearance, and would introduce an urban industrial development into an important area of rural countryside. It would result in significant adverse effects on the landscape character and to views including those from public rights of way. The proposed mitigation is ineffective in mitigating this harm and the proposal is contrary to the NPPF and Policies ENV1, DES1 and DES2 of the South Oxfordshire Local Plan 2035, and Policy CUL5 of the Culham Neighbourhood Plan.

Further, this proposal in addition to the development on allocated sites STRAT8 and STRAT9 will create an increased cumulative impact on the landscape of the area. Contrary to policies ENV1, DES1 and DES2 of the South Oxfordshire Local Plan 2035.

3. Harm to Heritage Asset

The proposed development of an industrial nature would encroach into the Nuneham Courtenay Grade I Registered Park and Garden (RPG), a highly significant C18 parkland landscape, which contains several listed buildings and structures. The development will result in significant adverse impacts to the designated heritage asset, and the setting of the RPG. The proposed landscape mitigation fails to respect the character of the RPG and its setting and would result in further harm. The harm to the heritage assets considerably

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outweighs the benefits of the proposed development and the proposal is therefore contrary to the NPPF policies ENV6 and ENV10 of the South Oxfordshire Local Plan 2035, and the NPPF.

Further, this proposal in addition to the development on allocated sites STRAT8 and STRAT9 will create an increased cumulative impact on the setting of the designated Registered Park and Garden. Contrary to policies ENV6, ENV7 and ENV10 of the South Oxfordshire Local Plan 2035, the NPPF.

4. Loss of BMV agricultural land

The loss of Best and Most Versatile land throughout the lifetime of the proposed development (40 years) has not been justified by compelling evidence in accordance with the written ministerial statement of 15 May 2024 concerning the use of agricultural land, which is reflected in policy DES7 of the South Oxfordshire Local Plan 2035 and the NPPF.

5. Insufficient information on Archaeology

Insufficient information relating to the results of an archaeological trenched evaluation has been submitted to demonstrate that the proposed development would protect against harm to archaeological assets. As this information has not been provided, and the County Archaeologist has been unable to assess the impacts of the development, the development is contrary to the NPPF policy ENV9 of the South Oxfordshire Local Plan 2035.

6. Insufficient information on Drainage

Insufficient information has been submitted to demonstrate that the proposed development would be served by an appropriate drainage strategy. As such, the proposal is contrary to policies INF4, EP4 and STRAT4 of the South Oxfordshire Local Plan 2035.

7. Insufficient information Ecology

Insufficient information has been submitted to demonstrate that the proposed development would address Biodiversity Net Gain requirements. As such, the proposal is contrary to policy ENV3 of the South Oxfordshire Local Plan 2035.

8. Insufficient information on Arboricultural matters

There is insufficient and inconsistent information regarding Arboricultural matters and to adequately assess any harmful impact on trees. As such, the proposal is contrary to policy ENV1 of the South Oxfordshire Local Plan.

A handwritten signature in black ink, appearing to read 'C Scotting', written in a cursive style.

Cathie Scotting

Delegated Authority Sign-Off Officer