

Planning Committee 15 July 2021	Application Reference: 21/00077/FUL
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Reference: 21/00077/FUL	Site: Land adjacent Fen Farm Judds Farm and part of Bulphan Fen Harrow Lane, Bulphan Essex
Ward: Orsett	Proposal: Installation of renewable led energy generating station comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, inverter/transformer stations, site accesses, grid connection cable, internal access tracks, security measures, access gates, other ancillary infrastructure, landscaping and biodiversity enhancements

Plan Number(s):		
Reference	Name	Received
BF1.0 Rev v.b	Consolidated Location Plan	20 January 2021
BF1.1 Rev v.b	Location Plan 1 (Havering)	20 January 2021
BF1.2 Rev v.b	Location Plan 2 (Thurrock)	20 January 2021
BF2.0 Rev v.b	Consolidated Site Location Plan	20 January 2021
BF2.1 Rev v.c	Consolidated Location Plan 1 (Havering)	20 January 2021
BF2.2 Rev v.c	Consolidated Location Plan 2 (Thurrock)	20 January 2021
BF3.0 Rev 03	PV Elevations	20 January 2021
BF4.0 Rev 01	Inverter/Transformer Stations	20 January 2021
BF5.0 Rev 01	Internal Access Road Detail	20 January 2021
BF6.0 Rev 01	Fence and Gate Elevations	20 January 2021
BF7.0 Rev 01	Weather Station	20 January 2021
BF8.0 Rev 01	Substation Elevations	20 January 2021
BF9.0 Rev 01	Control Room Elevations	20 January 2021
BF10.0 Rev 01	Auxiliary Transformer	20 January 2021
BF11.0 Rev 01	CCTV Elevations	20 January 2021
BF12.0 Rev 01	Battery Container Elevations 40ft	20 January 2021
BF13.0 Rev 01	Storage Container Elevations 40ft	20 January 2021
BF13.0 Rev 01	PV Elevations Ballast	17 May 2021
BF14.0 Rev v.a	Field Topographical Data	20 January 2021
7509_005_D	Landscape and Ecological Enhancement Plan	20 January 2021
No no's	Preliminary Greyscale	17 May 2021

The application is also accompanied by:

- R003 Planning Statement including Green Belt Assessment
- R004 Design and Access Statement
- R005 Construction Traffic Management Plan
- R006 Non-Technical Summary of the Environmental Statement
- R007 Environmental Statement Main Text
- R008 Environmental Statement Technical Appendices
- R009 Landscape and Ecological Management Plan
- R010 Flood Risk Assessment and Drainage Strategy
- R011 Noise Impact Assessment
- R012 Ecological Appraisal Report (including Biodiversity Net Gain Statement)
- R013 Statement of Community Involvement
- R014 Agricultural Land Classification Report
- R015 Heritage Assessment Desk Based Assessment
- R016 Interim Archaeology Geophys Report
- R017 Glint and Glare Assessment
- Ecology Data File (parts 1 – 26)
- Ground Channel

Applicant:

Mr Simon Wheeler
Warley Green Limited

Validated:

18 January 2021

Date of expiry:

19 July 2021 (Extension of time
agreed with applicant)

Recommendation: Grant outline planning permission, as per the recommendation set out at paragraph 8.1 of this report

1.0 DESCRIPTION OF PROPOSAL

1.1 The table below gives a summary of the proposal:

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Gross site area	138 hectares
Gross site area of PV panels	106 hectares
Power output	49.9MW of clean renewable electricity to the National Grid (providing the equivalent annual electrical needs of approximately 16,103 Thurrock family homes)

- 1.2 This application seeks planning permission to construct and operate a solar farm and battery storage facility with associated infrastructure. The solar arrays would be located wholly within Thurrock, but this is a cross boundary application with the underground cable providing the grid connection to the Warley National Grid Substation at North Ockendon, which is in London Borough of Havering (LBH). The applicant has therefore submitted joint applications with the relevant red line boundary plans to the two respective local planning authorities.
- 1.3 The solar panels would be 3m high, ground mounted on tracking frames. It is proposed to use solar arrays with bifacial panels and a tracking system to follow the path of the sun. This means that their height will vary throughout the day, but the maximum height would be 3m. The arrays will be installed on posts driven into the ground. The proposed inverters and battery storage units would be housed in containers 12m long and 2.9m high. The largest element would be a single substation 12.5m x 5.5m x 4.2m. It is proposed to install 2.2m high deer fencing around the perimeter of the site. The fencing would be set back at least 5m either side of all public rights of way. Buffer zones are proposed whereby no solar panels will be sited within 10m of a public right of way or within 9m of a drainage ditch. There would be no development within 15m of the top of the bank alongside the Mardyke, or within 6m of the top of a boundary drainage ditch or watercourse.
- 1.4 When operational, the solar farm and battery storage would supply up to 49.9MW to the National Grid, which is the equivalent of the annual electrical needs of approximately 16,100 family homes. The site would be operational for 35 years. The solar farm would be decommissioned at the end of this period, with all panels and associated infrastructure (including below ground infrastructure) removed from the site. The land would then be restored to agricultural use.
- 1.5 The scheme proposes a maximum electrical output of 49.9MW which is the maximum output which can be considered by a local planning authority via a conventional

planning application. Proposals involving an output of 50MW or more are classified as 'Nationally Significant Infrastructure Projects' (NSIPs) by the Planning Act 2008 and are considered by the relevant Secretary of State via the Development consent Order (DCO) process.

- 1.6 Due to the scale of the site, the development requires an Environmental Impact Assessment (EIA) and the application is therefore supported by an Environmental Statement (ES). The only topic which was scoped-in to the ES is Landscape and Visual Impact.

2.0 SITE DESCRIPTION

- 2.1 The site comprises 18 adjoining arable fields with associated hedgerows on Bulphan Fen approximately 600m to the west of Bulphan village. The Thurrock site area is approximately 138 hectares (the overall site area including LBH is approximately 143 hectares). The site is relatively low-lying, flat fenland and is all Grade 3b 'Moderate' soil within the applicant's Agricultural Land Classification (ALC). Access to the site is via Harrow Road and Fen Lane. There are a number of public rights of way within the site area. The site lies within flood zones 1, 2 and 3a. The site is within the Metropolitan Green Belt (GB). There are no statutory ecological designations affecting the site. However, the site is within 'impact zones' drawn around SSSIs located to the north-east and north-west.
- 2.2 The proposed route of the Lower Thames Crossing (LTC) lies immediately to the south west of the site.

3.0 RELEVANT HISTORY

Application Reference	Description of Proposal	Decision
P0059.21	Installation of renewable led energy generating station comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, inverter/transformer stations, site accesses, internal access tracks, security measures, access gates, other ancillary infrastructure, grid connection	Under consideration

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	cable, landscaping and biodiversity enhancements	
20/01296/SCO	Request for an Environmental Impact Assessment (EIA) Scoping Opinion: Proposed solar farm and battery storage	Advice given
20/01178/SCR	Request for a Screening Opinion under Part 2 (6) of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017: Proposed development comprising solar farm and battery storage facility	EIA required

4.0 CONSULTATIONS AND REPRESENTATIONS

4.1 Detailed below is a summary of the consultation responses received. The full version of each consultation response can be viewed on the Council's website via public access at the following link: www.thurrock.gov.uk/planning

PUBLICITY:

4.2 This application has been advertised by way of individual neighbour notification letters, press advert and public site notices which have been displayed within and adjacent to the site. The proposals have been advertised as a major development, as affecting a public footpath, as accompanied by an Environmental Statement, as a departure from the Development Plan and as affecting the setting of a listed building.

4.3 There were 29 comments of objection received. The matters raised are summarised below:

- Traffic routing;
- Effect to public rights of way;
- Reflected light/glare affecting traffic (LTC);
- Loss of wildlife;
- Pollution in construction stage;
- Detrimental visual impact;

- Solar panels are not really clean energy;
- Damaged solar panels release toxins;
- Loss agricultural land;
- Harm to character of the countryside;
- Lead to flooding;
- Precedence for future development of the site for housing;
- S106 for community causes is a bribe, doesn't comply with regulations;
- S106 could be provided to dredge Mardyke to maintain drainage;
- Doesn't meet sequential flood risk test;
- Negative effect to house prices;
- Solar farms should not and are usually not so near to homes.

4.4 ANGLIAN WATER:

No objections.

4.5 ARCHAEOLOGY:

No objections, subject to conditions regarding a programme of archaeological investigation and post excavation analysis.

4.6 CADENT:

No response received.

4.7 EMERGENCY PLANNING:

No objections, subject to condition regarding a Flood Warning Evacuation Plan.

4.8 ENVIRONMENT AGENCY:

No objections. As the site lies within flood zones 1, 2 and 3a. Therefore it is necessary for the application to pass the Sequential and Exception Tests.

4.9 ENVIRONMENTAL HEALTH:

No objections.

4.10 ESSEX FIELD CLUB:

Object to the proposal, do not consider information provide enough information to prove biodiversity net gain.

4.11 FLOOD RISK MANAGER:

No objection, subject to condition regarding soil management.

4.12 HIGHWAYS:

No objections, subject to conditions regarding HGV routing/logging and road condition surveys.

4.13 HIGHWAYS ENGLAND:

No response received.

4.14 HISTORIC BUILDINGS:

No objections.

4.15 LANDSCAPE AND ECOLOGY:

No objections.

4.16 LONDON BOROUGH OR HAVERING:

No response received.

4.17 NATIONAL GRID:

No response received.

4.18 NATURAL ENGLAND:

No objection.

4.19 PUBLIC RIGHTS OF WAY:

Recommend contribution towards footpaths/bridleways.

5.0 POLICY CONTEXT

National Planning Guidance

5.1 National Planning Policy Framework (NPPF)

The revised NPPF was published on 19 February 2019. The revised NPPF was published on 19 February 2019. Paragraph 11 of the Framework sets out a presumption in favour of sustainable development. This paragraph goes on to state that for decision taking this means:

- c) approving development proposals that accord with an up-to-date development plan without delay; or
- d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out of date¹, granting permission unless:
 - i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed²; or
 - ii any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.

¹ This includes, for applications involving the provision of housing, situations where the local planning authority cannot demonstrate a five year supply of deliverable housing sites ...

² The policies referred to are those in this Framework relating to: habitats sites and/or SSSIs, land designated as Green Belt, Local Green Space, AONBs, National Parks, Heritage Coast, irreplaceable habitats, designated heritage assets and areas at risk of flooding or coastal change.

The NPPF sets out the Government's planning policies. Paragraph 2 of the NPPF confirms the tests in s.38 (6) of the Planning and Compulsory Purchase Act 2004 and s.70 of the Town and Country Planning Act 1990 and that the Framework is a material consideration in planning decisions. The following chapter headings and content of the NPPF are particularly relevant to the consideration of the current proposals:

- 2. Achieving sustainable development
- 11. Making effective use of land
- 12. Achieving well-designed places

- 13. Protecting Green Belt land
- 14. Meeting the challenge of climate change, flooding and coastal change
- 15. Conserving and enhancing the natural environment
- 16. Conserving and enhancing the historic environment

5.2 National Planning Practice Guidance (PPG)

In March 2014 the Department for Communities and Local Government (DCLG) launched its planning practice guidance web-based resource. This was accompanied by a Written Ministerial Statement which includes a list of the previous planning policy guidance documents cancelled when the NPPF was launched. PPG contains subject areas, with each area containing several subtopics. Those of particular relevance to the determination of this planning application comprise:

- Before submitting an application
- Climate change
- Design: process and tools
- Determining a planning application
- Effective use of land
- Environmental Impact Assessment
- Fees for planning applications
- Flood Risk and Coastal Change
- Green Belt
- Hazardous Substances
- Historic environment
- Making an application
- Natural Environment
- Noise
- Open space, sports and recreation facilities, public rights of way and local green space
- Planning obligations
- Renewable and low carbon energy
- Travel plans, transport assessments and statements in decision-taking
- Use of Planning Conditions

5.3 PPG states that the need for renewable or low carbon energy does not automatically override environmental protections. The first part of the Solar PV Strategy, published in October 2013, states that solar PV should be *“appropriately sited, give weight to environmental considerations such as landscape and visual impact, heritage and local amenity, and provide opportunities for local community to influence decisions that affect them”*.

5.4 PPG sets out criteria for assessing ground-mounted solar project planning applications. The following extract is taken from the guidance (Paragraph: 013, Reference ID: 5-013-20150327):

“The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively.

Particular factors a local planning authority will need to consider include:

- *encouraging the effective use of land by focusing large scale solar farms on previously developed and non agricultural land, provided that it is not of high environmental value;*
- *where a proposal involves greenfield land, whether*
 - (i) the proposed use of any agricultural land has been shown to be necessary and poorer quality land has been used in preference to higher quality land; and*
 - (ii) the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays. See also a speech by the Minister for Energy and Climate Change, the Rt Hon Gregory Barker MP, to the solar PV industry on 25 April 2013 and Written Ministerial Statement – Solar energy: protecting the local and global environment – made on 25 March 2015.*
- *that solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use;*
- *the proposal’s visual impact, the effect on landscape of glint and glare (see guidance on landscape assessment) and on neighbouring uses and aircraft safety;*
- *the extent to which there may be additional impacts if solar arrays follow the daily movement of the sun;*
- *the need for, and impact of, security measures such as lights and fencing;*
- *great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting. As the significance of a heritage asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of large scale solar farms on such assets. Depending on their scale, design and prominence, a large scale solar farm within the setting of a heritage asset may cause substantial harm to the significance of the asset;*
- *the potential to mitigate landscape and visual impacts through, for example, screening with native hedges;*
- *the energy generating potential, which can vary for a number of reasons including, latitude and aspect.*

The approach to assessing cumulative landscape and visual impact of large scale solar farms is likely to be the same as assessing the impact of wind turbines. However, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero.”

5.5 UK Solar PV Strategy

Part 1 of the Government's (Department for Energy and Climate Change – DECC) UK Solar PV Strategy (2013) set out the four guiding principles for deployment of solar in the UK. These principles are:

- Support for solar PV should allow cost-effective projects to proceed and to make a cost-effective contribution to UK carbon emission objectives in the context of overall energy goals – ensuring that solar PV has a role alongside other energy generation technologies in delivering carbon reductions, energy security and affordability for consumers.
- Support for solar PV should deliver genuine carbon reductions that help meet the UK's target of 15 per cent renewable energy from final consumption by 2020 and in supporting the decarbonisation of our economy in the longer term – ensuring that all the carbon impacts of solar PV deployment are fully understood.
- support for solar PV should ensure proposals are appropriately sited, give proper weight to environmental considerations such as landscape and visual impact, heritage and local amenity, and provide opportunities for local communities to influence decisions that affect them.
- Support for solar PV should assess and respond to the impacts of deployment on: grid systems balancing; grid connectivity; and financial incentives – ensuring that we address the challenges of deploying high volumes of solar PV.

5.6 Part 2 of the DECC's UK Solar PV Strategy (2014) refers to ambitions for deployment, including large-scale ground-mounted solar PV deployment. The Strategy highlights the planning guidance for renewable energy development provided by PPG.

5.7 There are a number of other Government directions on solar, including:

- Committee on Climate Change (9 December 2020) published its Sixth Carbon Budget which indicated that in order to achieve the UK's legally-binding commitment of net zero carbon by 2050, the UK should target 85GW of installed solar by that date, enough to generate some 10-15% of the nation's electricity.
- The Energy White Paper (December 2020) noted the importance of solar in future energy generation.

National Policy Statements:

- 5.8 Although National Policy Statements (NPS) apply specifically to NSIPs and applications under the Planning Act 2008 for DCOs, NPS reference (EN-1: Overarching National Policy Statement for Energy - 2011) states that *“In England and Wales this NPS is likely to be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended). Whether, and to what extent, this NPS is a material consideration will be judged on a case by case basis”*. The content of EN-1 could therefore be relevant to the current case. Paragraph no. 3.4.5 of EN-1 refers to *“UK commitments to sourcing 15% of energy from renewable sources by 2020. To hit this target, and to largely decarbonise the power sector by 2030, it is necessary to bring forward new renewable electricity generating projects as soon as possible. The need for new renewable electricity generation projects is therefore urgent”*. Part 5 of EN-1 refers to the generic impact of land use including open space, green infrastructure and GB. With regard to decision taking, paragraph 5.10.17 of EN-1 states:
- 5.9 *“When located in the GB, energy infrastructure projects are likely to comprise ‘inappropriate development’¹³⁴. Inappropriate development is by definition harmful to the GB and the general planning policy presumption against it applies with equal force in relation to major energy infrastructure projects. The IPC will need to assess whether there are very special circumstances to justify inappropriate development. Very special circumstances will not exist unless the harm by reason of inappropriateness, and any other harm, is outweighed by other considerations. In view of the presumption against inappropriate development, the IPC will attach substantial weight to the harm to the GB when considering any application for such development while taking account, in relation to renewable and linear infrastructure, of the extent to which its physical characteristics are such that it has limited or no impact on the fundamental purposes of GB designation”*.

Local Planning Policy

- 5.10 Thurrock Local Development Framework (as amended) 2015

The Council adopted the “Core Strategy and Policies for the Management of Development Plan Document” in (as amended) in January 2015. The following Core Strategy policies apply to the proposals:

OVERARCHING SUSTAINABLE DEVELOPMENT POLICY:

- OSDP1: Promotion of Sustainable Growth and Regeneration in Thurrock

SPATIAL POLICIES:

- CSSP3: Sustainable Infrastructure
- CSSP4: Sustainable Green Belt
- CSSP5: Sustainable Greengrid

THEMATIC POLICIES:

- CSTP15: Transport in Greater Thurrock
- CSTP18: Green Infrastructure
- CSTP19: Biodiversity
- CSTP20: Open Space
- CSTP21: Productive Land
- CSTP22: Thurrock Design
- CSTP23: Thurrock Character and Distinctiveness
- CSTP24: Heritage Assets and the Historic Environment
- CSTP25: Addressing Climate Change
- CSTP26: Renewable or Low-Carbon Energy Generation
- CSTP27: Management and Reduction of Flood Risk
- CSTP33: Strategic Infrastructure Provision

POLICIES FOR THE MANAGEMENT OF DEVELOPMENT

- PMD1: Minimising Pollution and Impacts on Amenity
- PMD2: Design and Layout
- PMD4: Historic Environment
- PMD6: Development in the Green Belt
- PMD7: Biodiversity, Geological Conservation and Development
- PMD8: Parking Standards
- PMD9: Road Network Hierarchy
- PMD10: Transport Assessments and Travel Plans
- PMD13: Decentralised, Renewable and Low Carbon Energy Generation
- PMD 14: Carbon Neutral Development
- PMD15: Flood Risk Assessment
- PMD16: Developer Contributions

5.11 Thurrock Local Plan

In February 2014 the Council embarked on the preparation of a new Local Plan for the Borough. Between February and April 2016 the Council consulted formally on an 'Issues and Options (Stage 1)' document and simultaneously undertook a 'Call for Sites' exercise. In December 2018 the Council began consultation on an Issues and

Options [Stage 2 Spatial Options and Sites] document, this consultation has now closed and the responses have been considered and reported to Council. On 23 October 2019 the Council agreed the publication of the Issues and Options 2 Report of Consultation on the Council's website and agreed the approach to preparing a new Local Plan.

5.12 Thurrock Design Strategy

In March 2017 the Council launched the Thurrock Design Strategy. The Design Strategy sets out the main design principles to be used by applicants for all new development in Thurrock. The Design Strategy is a supplementary planning document (SPD), which supports policies in the adopted Core Strategy.

6.0 **ASSESSMENT**

6.1 Procedure:

With reference to procedure, this application has been advertised as being accompanied by an Environmental Statement and as a departure from the Development Plan. Should the Planning Committee resolve to grant planning permission, the application will first need to be referred to the Secretary of State under the terms of the Town and Country Planning (Consultation) (England) Direction 2009. The reason for the referral as a departure relates to Green Belt development and therefore the application will need to be referred under paragraph 4 of the Direction. The Direction allows the Secretary of State a period of 21 days within which to 'call-in' the application for determination via a public inquiry. In reaching a decision as to whether to call-in an application, the Secretary of State will be guided by the published policy for calling-in planning applications and relevant planning policies.

6.2 The development is considered to be development requiring an Environmental Impact Assessment (EIA), therefore the application has been accompanied by an Environmental Statement (ES). The ES considers the environmental effects of the proposed development during construction and on completion and includes measures either to prevent, reduce or offset any significant adverse effects on the environment.

6.3 The Council has a statutory duty to examine the ES submitted with the application and reach a reasoned conclusion on the significant effects of the proposed development on the environment that are likely to arise as a result of the proposed development. If planning permission is to be granted, the Council must ensure that all appropriate mitigation and monitoring measures are secured. EIA is, therefore, an integral component of the planning process for significant developments. EIA leads

to improved decision making by providing the development management process with better information. EIA not only helps to determine whether development should be permitted, but also facilitates the drafting of planning conditions and planning obligations in order to control development, avoid or mitigate adverse effects and enhance beneficial effects. Therefore, it is vital that the environmental issues raised by the application are assessed in a robust and transparent manner.

6.4 In order to fulfil the requirements of the EIA Regulations it is necessary to ensure (a) that the Council has taken into account the environmental information submitted, and (b) that any planning permission granted is consistent with the development which has been assessed. To achieve this second objective the Council has the ability to impose planning conditions and secure other mitigation measures through planning obligations in a s106 agreement.

6.5 The assessment below covers the following areas:

- I. Principle of the development and impact on GB;
- II. Landscape and visual impact;
- III. Traffic impact, access and parking;
- IV. Agricultural land classification;
- V. Effect on neighbouring properties;
- VI. Flood risk;
- VII. Archaeology;
- VIII. Built Heritage assets;
- IX. Ecology;
- X. Planning obligations; and
- XI. EIA matters.

I. PRINCIPLE OF THE DEVELOPMENT AND IMPACT ON THE GREEN BELT

6.6 There is a need for energy production in the UK and this is supported within planning policies to secure production, including energy from varied and low carbon sources. Paragraph 148 of the NPPF states *The planning system should support the transition to a low carbon future in a changing climate and support renewable and low carbon energy and associated infrastructure.* Paragraph 151 states plans should seek *To help increase the use and supply of renewable and low carbon energy and heat,* CSTP26 states *As part of the shift to low-carbon future and to tackle climate change, the Council will encourage opportunities to generate energy from non-fossil fuel and low-carbon sources.* Part. II of CSTP26 requires that *The Council will promote the delivery of renewable and low-carbon energy developments utilising technology such as solar panels, biomass heating, small-scale wind turbine, photovoltaic cells, Combined Heat and Power and other methods.* However, this encouragement of renewable energy generation is still subject to GB policies.

- 6.7 Under the heading of the impact of the proposals on the GB, it is necessary to refer to the following key questions:
1. Whether the proposals constitute inappropriate development in the GB;
 2. The effect of the proposals on the open nature of the GB and the purposes of including land within it; and
 3. Whether the harm to the GB is clearly outweighed by other considerations so as to amount to the very special circumstances necessary to justify inappropriate development.
1. Whether the proposals constitute inappropriate development in the GB
- 6.8 The site is identified on the LDF Core Strategy Proposals Map as being within the Green Belt where policies CSSP4 and PMD6 apply. Policy CSSP4 identifies that the Council will 'maintain the purpose function and open character of the Green Belt in Thurrock', and Policy PMD6 states that the Council will 'maintain, protect and enhance the open character of the Green Belt in Thurrock'. These policies aim to prevent urban sprawl and maintain the essential characteristics of the openness and permanence of the Green Belt to accord with the requirements of the NPPF.
- 6.9 Paragraph 133 within Chapter 13 of the NPPF states that the Government attaches great importance to Green Belts and that the *"fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belt are their openness and their permanence."* Paragraph 143 states that a local planning authority should regard the construction of new buildings as inappropriate in the GB.
- 6.10 Paragraph 147 states *"When located in the Green Belt, elements of many renewable energy projects will comprise inappropriate development. In such cases developers will need to demonstrate very special circumstances if projects are to proceed. Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources"*.
- 6.11 Given the above the proposal would comprise inappropriate development with reference to the NPPF and Policy PMD6.
2. The effect of the proposals on the open nature of the GB and the purposes of including land within it
- 6.12 Having established that the proposals are inappropriate development, it is necessary to consider the matter of harm. Inappropriate development is, by definition, harmful

to the GB, but it is also necessary to consider whether there is any other harm to the GB and the purposes of including land therein.

- 6.13 As noted above, paragraph 133 of the NPPF states that the fundamental aim of GB policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of GBs being described as their openness and their permanence. The proposals would comprise a substantial amount of new development in an area which is currently open. Consequently there would be harm to the spatial dimension of openness. Advice published in NPPG (July 2019) addresses the role of the Green Belt in the planning system and, with reference to openness, cites the following matters to be taken into account when assessing impact:
- openness is capable of having both spatial and visual aspects;
 - the duration of the development, and its remediability; and
 - the degree of activity likely to be generated, such as traffic generation.
- 6.14 In terms of the bullet points above, openness in a spatial sense would be affected by the proposals which comprise a large development on what is presently open GB land. In terms of the visual aspect of openness, due to the nature of the site the visual effects would be limited as there are limited vantage points whereby the proposal would be viewable in its entirety.
- 6.15 The duration of the proposal is for a temporary period of 35 years operation. The site would then be returned to its present 'open' state. Although 35 years is still a considerable period of time, it is a very different proposal to a permanent building and therefore means the land would eventually be returned to undeveloped GB.
- 6.16 The degree of activity to be generated by the development would differ through the construction and operational phases. There would be some traffic generation during construction, which is likely to take approximately 40 weeks. However, this would not be excessive with 7 HGV movements a day (14 two way movements). When operational, there would be minimal vehicle movements associated with the site. Therefore, it is not considered that the proposal would impact openness in terms of activity generated, especially when the lifetime of the proposal is taken into account, the impact is negligible.
- 6.17 Paragraph 134 of the NPPF sets out the five purposes which the GB serves as follows:
- a. to check the unrestricted sprawl of large built-up areas;
 - b. to prevent neighbouring towns from 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.

6.18 In response to each of these five purposes:

a. to check the unrestricted sprawl of large built-up areas

6.19 The site is located within a rural area outside the village of Bulphan. For the purposes of the NPPF, the site is considered to be outside of any 'large built up areas'. It would not therefore result in the sprawling of an existing built up area, but it would nonetheless represent the addition of built form on the site, albeit temporary.

b. to prevent neighbouring towns from merging into one another

6.20 On a broad geographical scale the site lies in between the towns of Basildon, Upminster and South Ockendon, however the proposal does not adjoin any of these towns. The development would not conflict with this Green Belt purpose to any material or significant degree.

c. to assist in safeguarding the countryside from encroachment

6.21 With regard to the third GB purpose, the proposal would involve built development on parts of the site which are currently open and free of any built form. The term "countryside" can conceivably include different landscape characteristics (e.g. farmland, woodland, marshland etc.) and there can be no dispute that the site comprises "countryside" for the purposes of applying the NPPF policy test. The proposal would lead to a large area being covered with panels which are 3m in height. It is clear that the level of development proposed would encroach upon the countryside in this location and would constitute material harm to the openness and rural character of the GB. The development would consequently conflict with this purpose.

d. to preserve the setting and special character of historic towns

6.22 The proposals do not conflict with this defined purpose of the Green Belt.

e. to assist in urban regeneration, by encouraging the recycling of derelict and other urban land

6.23 In general terms, the development could occur in the urban area, but there is a spatial imperative why GB land is required to accommodate the proposals. There are no

sites in the urban area of 138 hectares which have convenient access to a grid connection with the scale of sub-station required to handle 49.9MW. Therefore, the proposed development does not conflict with the fifth purpose of the Green Belt.

6.24 In light of the above analysis, it is considered that the proposals would clearly be harmful to openness and would be contrary to purpose (c) of the above listed purposes of including land in the Green Belt. Substantial weight should be afforded to these factors.

3. Whether the harm to the GB is clearly outweighed by other considerations so as to amount to the Very Special Circumstances (VSC) necessary to justify inappropriate development

6.25 Neither the NPPF nor the Adopted Core Strategy provide guidance as to what can comprise 'very special circumstances' (VSC), either singly or in combination. However, some interpretation of VSC has been provided by the Courts. The rarity or uniqueness of a factor may make it very special, but it has also been held that the aggregation of commonplace factors could combine to create very special circumstances (i.e. 'very special' is not necessarily to be interpreted as the converse of 'commonplace'). However, the demonstration of VSC is a 'high' test and the circumstances which are relied upon must be genuinely 'very special'. In considering whether VSC exist, factors put forward by an applicant which are generic or capable of being easily replicated on other sites, could be used on different sites leading to a decrease in the openness of the Green Belt. The provisions of VSC which are specific and not easily replicable may help to reduce the risk of such a precedent being created. Mitigation measures designed to reduce the impact of a proposal are generally not capable of being VSC. Ultimately, whether any particular combination of factors amounts to VSC will be a matter of planning judgment for the decision-taker.

6.26 With regard to the NPPF, paragraph 143 states that '*inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances*'. Paragraph 144 goes on to state 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, is clearly outweighed by other considerations*".

6.27 The Planning Statement sets out the applicant's VSC case which is listed and then assessed below:

1. Increasing Renewable Energy Generation

2. Climate Emergency
3. Energy Security
4. Best Available Technology
5. Good Design
6. Alternatives
7. Temporary and Reversible Impacts
8. Biodiversity Net Gain
9. Soil Regeneration
10. Green Infrastructure
11. Farm Diversification
12. Transmission Vs Distribution Connection

1. *Increasing Renewable Energy Generation (the Proposed Development would supply up to 49.9MW to the National Grid, providing the equivalent annual electrical needs of approximately 16,100 family homes in Thurrock. The anticipated CO2 displacement is around 23,600 tonnes per annum, which represents an emission saving equivalent of a reduction in c.7,800 cars on the road every year).*

- 6.28 The applicant considers the creation of renewable energy generation should be afforded significant weight in the planning balance.
- 6.29 A Committee on Climate Change 'Progress Report' 2020 states that the path to achieving net-zero emissions by 2050 will necessarily entail a steeper reduction in emissions over the intervening three decades and to reach the UK's new Net Zero target. Reaching net-zero emissions in the UK will require all energy to be delivered to consumers in zero carbon forms (i.e. electricity, hydrogen, hot water in heat networks) and come from low carbon sources (i.e. renewables and nuclear etc).

Consideration

- 6.30 The generation of renewable energy is promoted throughout local and national planning policies. Paragraph 154 of the NPPF confirms that applicants do not need to demonstrate the need for renewable or low carbon energy. Even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions. The NPPF states that commercial scale projects outside of planned areas, need to demonstrate that the proposed location meets the criteria used in identifying suitable areas.
- 6.31 The proposal is for a large scale solar farm and policy CSTP26 *Renewable or Low-Carbon Energy Generation* states that the Council will promote the delivery of renewable and low-carbon energy developments utilising technology such as solar

panels. The policy also states that the Council will view an application as unacceptable where it produces a significant adverse impact that cannot be mitigated, including cumulative landscape or visual impacts. It is considered that the provision of a large scale solar farm and the benefits of renewable energy generation can be given significant positive weight in the planning balance.

2. Climate Emergency

- 6.32 In May 2019 a national climate emergency was declared by the UK Parliament. MPs called on Government to make changes that included the setting of a radical and ambitious new target of reaching net zero emissions before 2050. Thurrock Council declared a Climate Emergency in October 2019 which requires that the Council's activities become net-zero carbon by 2030. The Council recognised the need to consider strategies and actions which are currently being developed by the Council and other partner organisations and develop a strategy in line with a target of net-zero carbon by 2030. The applicant considers that this is afforded substantial weight in the planning balance.

Consideration

- 6.33 The proposal would supply up to 49.9MW to the National Grid, which is the equivalent of the annual electrical needs of approximately 16,100 family homes. This is a significant contribution towards increasing the proportion of renewable and low carbon energy generation to reduce the consumption of fossil fuels and the associated carbon footprint. Whilst it is agreed that Council has declared a climate emergency, this is not a planning 'policy' and amounts to substantially the same matter as covered within (1) above. Therefore, it can be given moderate positive weight to the planning balance.

3. Energy Security

- 6.34 The applicant considers that the proposal supplies clean renewable energy to the National Grid, comprising secure, distributed and diversified energy generation which accords with the Government's policy on energy security as identified within NPS EN-1 which explains the need for energy security allied with a reduction in carbon emissions. They consider this should be afforded substantial weight in the planning balance.

Consideration

- 6.35 There is an undisputed need for new energy generation sources including renewables. A large resource such as that proposed would aid both energy security and the amount of energy provided by renewable sources within the Borough as

required by national and local policies. It is agreed that the contribution to energy security should be afforded substantial weight in the planning balance.

4. Best Available Technology

- 6.36 The applicant states that the proposal comprises the latest best available technology that delivers greater levels of solar efficiency by utilising a solar tracking system, together with bifacial panels which, between them increase continuous electrical productivity by 20-25% when compared to traditional fixed solar arrays. This maximises renewable energy production from the site whilst providing security of supply in accordance with Government Policy in reducing the reliance on fossil fuel generation as back up, thereby avoiding the adverse environmental and climate effects. The applicant considers this should be afforded significant weight in the planning balance.

Consideration

- 6.37 Solar technology is always evolving, as with any technology, especially ones which are future climate change focussed. The tracking system would enable the system to enable increased productivity and the efficiency of production. Whilst the applicant considers this should be afforded significant weight, Officers consider that this is an 'operational' factor, rather than a consideration which relates to GB matters. Therefore no positive weight can be attached to using the best technology.

5. Good Design

- 6.38 The overall design and layout of the site has been thought out to minimise harm and provide significant benefits to the development as a whole. The applicant considers this should be afforded moderate weight in the planning balance.

Consideration

- 6.39 The applicant has designed the proposal to best meet with all planning policies, so to maximise output and avoid any unacceptable impacts to any nearby properties and the wider area. Any such proposal of this scale, would obviously have impacts, but these need to be balanced with the benefits of such a scheme. It is agreed this can be granted some positive weight.

6. Alternatives

- 6.40 The applicant has, in the ES at Chapter 3 (Document Ref: R007), set out the

alternatives considered as part of the evolution of the design and location of the proposed development. This includes an explanation of the alternative sites considered. Overall, it concludes that within the defined Study Area, there are no alternative sites which are suitable and available for the proposed development. The applicant considers this should be afforded substantial weight in the planning balance.

Consideration

- 6.41 In terms of a proposal such as the current application, the planning considerations are complex and far reaching. The applicant has investigated other sites within the locality and concludes there are no alternative sites which could accommodate the proposal. The solar farm requires a large area for the solar panels themselves and the necessary connection to the grid via a sub-station with sufficient capacity to allow the solar farm to function. In this case, the site would connect to the Warley sub-station located west of Upminster and c.1.9km from the application site. This sub-station connects to the National Grid. The lack of alternative appropriate sites for a resource such as the proposed should be afforded significant weight.

7. Temporary and Reversible Impacts

- 6.42 The solar farm is proposed for a lifetime of 35 operational years. After the 35-year period the generating station would be decommissioned. All electricity generating equipment and built structures associated with the proposed development would be removed from the site and it would continue in agricultural use. It is therefore considered that the proposal is a temporary development. This also aligns with paragraph 13 of the Planning Practice Guidance which states that solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use. Construction traffic associated with the solar farm would be limited to the construction period of 40 weeks and will not have a material effect on the safety or operation of the local highway network. The applicant suggests this is afforded substantial weight in the planning balance.

Consideration

- 6.43 The temporary nature of the proposal, albeit for 35 years, is a matter which weighs in favour of the proposal. The solar farm would not have some of the impacts associated with many traditional built-development proposals and would be conditioned to return the area back to open land after 35 years. Officers consider this can be afforded some positive weight.

8. Biodiversity Net Gain

6.44 The applicant sets out a number of biodiversity benefits within the accompanying Landscape and Ecological Management Plan (LEMP Document Ref: R009). The LEMP sets out how the proposal would lead to significant enhancement of the biodiversity of the site. This is demonstrated by the Net Biodiversity Gain Statement contained within the Ecological Appraisal Report (Document Ref. R012), which concludes that there will be a net gain of 57.3% for habitats and 112% for hedgerows through the implementation of the Proposed Development. This is afforded substantial weight in the planning balance.

Consideration

6.45 Both the NPPF and Core Strategy Policy PMD7 require, when determining planning applications that local planning authorities aim to conserve and enhance biodiversity by applying a number of principles including the encouragement of opportunities to incorporate biodiversity in and around developments. The Council's Landscape and Ecology Advisor has confirmed that the site is presently of low ecological value and the mitigation and enhancement put forward would increase biodiversity net gain of the site. Therefore, Biodiversity Net Gain should be afforded moderate weight within the planning balance.

9. Soil Regeneration

6.46 The Soil Strategy for England, which builds on Defra's 'Soil Action Plan for England (2004-2006)', sets out an ambitious vision to protect and improve soil to meet an increased global demand for food and to help combat the adverse effects of climate change.

The Agricultural Land Classification Report, (ALC report Ref: R014), states the greatest benefits in terms of increase in soil organic matter (SOM), and hence soil organic carbon (SOC), can be realised through land use change from intensive arable to grasslands. Likewise, SOM and SOC are increased when cultivation of the land for crops (tillage) is stopped and the land is uncultivated (zero tillage). Global evidence suggests that zero tillage results in more total soil carbon storage when applied for 12 years or more. Therefore, there is evidence that conversion of land from arable to grassland which is uncultivated over the long-term (>12 years), such as that under solar farm arrays, increases SOC and SOM. The applicant considers this is afforded moderate weight in the planning balance.

Consideration

6.47 The site is within soil categorisation 3b and therefore within the lower grades agricultural land which does not require the special consideration given to Best and

Most Versatile soils within Grades 1, 2 and 3a. Additionally, the opportunity to leave the land fallow for a number of years could allow the land to regenerate to being an agricultural land resource in the future. However, the opportunity to leave the land fallow does not require a solar farm and the Council considers this factor has no positive weight towards in the planning balance.

10. Green Infrastructure

- 6.48 The enhanced landscape structure will greatly improve green infrastructure corridors and connectivity across and within the site and therefore the applicant considers this should be afforded considerable weight in the planning balance.

Consideration

- 6.49 Policy CSSP5 seeks to safeguard biodiversity and create ecosystem opportunities and Policy PMD7 requires significant biodiversity habitat to be retained or if this is not possible, any loss is mitigated. The development would lead to biodiversity net gain and the green infrastructure corridors would be improved. Therefore, this can factor be afforded moderate positive weight.

11. Farm Diversification

- 6.50 Renewable energy is an important form of farm diversification, recognised by the National Farmers Union (NFU) as an important step towards making British agriculture carbon neutral within two decades. As farming is responsible for around a tenth of UK greenhouse gas emissions, supporting renewable energy farm diversification projects will be a vital step to reaching net zero. This should be afforded moderate weight in the planning balance.

Consideration

- 6.51 The adopted Core Strategy does not have any specific policies concerning farm diversification. The NPPF in *Supporting a prosperous rural economy*, paragraph 83 states *Planning policies and decisions should enable:*
- b) the development and diversification of agricultural and other land-based rural businesses.*

As the applicant has stated, farming is responsible for a significant percentage of carbon production and marginal farming land can be redirected to offset this. Therefore, it is agreed that this can be afforded moderate positive weight in the planning balance.

12. Transmission Vs Distribution Connection

6.52 The advantage of connecting into the National Grid (Transmission) Network rather than the Distribution Network is that once a connection is identified, then a search can begin to identify the most suitable solar development land. This avoids considerable delays in securing both the connection with the Distribution Network Operator (DNO), land and ultimately the delivery of renewable energy to meet the UKs net zero target. This is afforded moderate weight in the planning balance.

Consideration

6.53 There is a separate application over the borough boundary to connect to the national grid. The solar farm would generate 49.9MW and this means the proposal should be ideally connected to the National Grid (Transmission) Network to ensure the plant connects directly into the Grid, rather than via the Distribution Network. This is important in terms of the efficiency of the proposal that the central system utilised. This factor links to some other of the considerations brought forward by the applicant in terms of why this site has been proposed. It is agreed this can be given moderate positive weight.

6.54 A summary of the weight which has been placed on the various GB considerations is provided below:

Summary of Green Belt Harm and Very Special Circumstances			
Harm	Weight	Factors Promoted as Very Special Circumstances	Weight
Inappropriate development, harm to openness and conflict with Green Belt – purpose c.	Substantial	1. Increasing Renewable Energy Generation	Significant weight
		2. Climate Emergency	Moderate weight
		3. Energy Security	Substantial weight
		4. Best Available Technology	No weight
		5. Good Design	Some weight
		6. Alternatives	Significant weight

	7. Temporary and Reversible Impacts	Some weight
	8. Biodiversity Net Gain	Moderate weight
	9. Soil Regeneration	No weight
	10. Green Infrastructure	Moderate weight
	11. Farm Diversification	Moderate weight
	12. Transmission Vs Distribution Connection	Moderate weight

6.55 As ever, in reaching a conclusion on GB issues, a judgement as to the balance between harm and whether the harm is clearly outweighed must be reached. In this case there is harm to the GB with reference to inappropriate development and loss of openness. Several factors have been promoted by the applicant as considerations and it is for the Committee to judge:

- i. the weight to be attributed to these factors;
- ii. whether the factors are genuinely 'very special' (i.e. site specific) or whether the accumulation of generic factors combine at this location to comprise 'very special circumstances'.

6.56 Taking into account all GB considerations, Officers are of the opinion that the identified harm to the GB is clearly outweighed by the accumulation of factors described above, so as to amount to the very special circumstances justifying inappropriate development.

II. LANDSCAPE AND VISUAL IMPACT

6.57 Landscape and Visual Impact was the only topic to be scoped into the Environmental Statement. In consultation with the Council's Landscape and Ecology Advisor, it was agreed that the Land of the Fanns Landscape Character Assessment would be most appropriate published study for this site rather than Thurrock Council's Landscape Capacity Study. Additional viewpoints were requested to confirm potential effects from rights of way including one closer to Orsett. The Landscape and Visual Impact Assessment (LVIA) methodology is considered appropriate.

Baseline

- 6.58 Thurrock Reclaimed Fens, as the site is referred to within the Fanns Landscape Character Assessment, forms a low lying inland basin which contrasts with the rising land of the Brentwood Wooded Hills to the north, Ockendon Rolling Farmland to the west, Langdon Hills to the east and Orsett Lowland Farmland to the south.
- 6.59 The Landscape Character Assessment (LCA) considers the area to be of a moderate-low landscape quality. This is as a result of *'intensive farming and gradual loss of defining characteristics which reflected its wetland past.'* The LCA did not consider sensitivity or susceptibility. The LVIA therefore has attempted to establish this and suggests that the ability of the landscape to accommodate low level development would be of a medium-low susceptibility.
- 6.60 The landscape has suffered from intensive farming practices and many of the historic field boundaries have been removed. Nonetheless, the area retains an open character and the landform is relatively intact and has not been subject to the effects of activities such as mineral extraction. The Land of the Fanns LCA deems the open expansive views to be one of the characteristics that makes the Thurrock Reclaimed Fens special.

Impact

- 6.61 The character of the application site is low-lying and expansive fenland landscape, therefore the Zone of Theoretical Visibility (ZTV) is large. However, given the relatively low height of the solar arrays and associated structures the Zone of Visual Influence (ZVI) itself is smaller, this is agreed by the Council's Landscape and Ecology Advisor, as shown in Figure 6.4 (Document R008).
- 6.62 The existing hedges and landscape patterns would aid the accommodation of development such as a solar farm due the low heights of the various elements. Nonetheless, at 138 hectares, this is a large scale development and therefore the sensitivity would be higher. While the effects on landscape character are localised, it is accepted that the scheme would have large scale effects within the site and immediate surroundings. This is a fundamental change from an agricultural landscape to a solar farm and would be a new feature in a predominantly rural landscape.
- 6.63 The Council's Landscape and Ecology Advisor has stated that whilst they agree with the LVIA conclusion that the effects on landscape character for the site and within approximately 250m of the boundaries would be high-medium magnitude of moderate significance. These effects would decrease as the distance from the site increases. They consider the magnitude to be closer to high and at the high end of moderate significance due to the scale of scheme.

- 6.64 The visual effects would be similar to those of landscape character, with the main effects being to viewpoints close to or within the site. The visual effects would be most significant for users of the public rights of way, up to major-moderate, as they will directly experience the new expansive development. Comprehensive landscape and ecology mitigation measures such as tree and hedge planting have been proposed, but these will take time to establish.
- 6.65 The Council's draft Landscape Sensitivity Evaluation considered that solar farms over 5ha would have a moderate sensitivity, which would increase with scale. This scheme is significantly larger and therefore it is considered that the sensitivity would be at the highest end of moderate. Nonetheless, it is accepted that the design has sought to consider changes in topography, existing hedges and other features to reduce effects.

Mitigation

- 6.66 There are a number of mitigation measures within the proposal in terms of the landscape and visual impacts. There would be planting of hedgerows and woodland as well as improved grassland, wildflower and scrub areas. This includes enhancement of existing hedgerows, creation of a substantial green corridor along PRow from Bulphan, and planting of substantial areas of neutral grassland underneath the solar panels and neutral grassland with wildflowers and scrub throughout the site. The Landscape and Ecology Management Plan (LEMP – document R009) details the short and long term management of new and existing habitats. The objective of the LEMP is to help integrate the development into its surrounding landscape, minimise potential negative visual and landscape impacts (in so far as possible) and enhance the existing landscape structure, amenity value and biodiversity.
- 6.67 The Council's Landscape and Ecology Advisor concludes *'The proposed mitigation would enhance visual interest for those using the rights of way. Changes in farming practice and the need to increase measures to tackle climate change also need to be taken into account; even in a 'do-nothing' option it is likely that the character of this area will change. The most significant potential cumulative effects would arise from the construction of the Lower Thames Crossing (LTC) immediately adjacent to the site'*.

Residual Impact

- 6.68 The LCA considers the area to be tranquil and containing dark skies. This scheme would not generate noise or traffic and will be unlit. It is considered therefore that it

would not adversely affect these qualities. Guidance to conserve and enhance character includes preserving and enhancing the network of hedgerows and hedgerow trees, coverts of deciduous woodland, ponds and improving access. The design and mitigation measures have sought to deliver these enhancements.

- 6.69 The Council's Landscape and Ecology Advisor concludes '*that this large-scale scheme would have effects that would be important for local residents and rights of way users as it will alter the character markedly and the proposed mitigation will take several years to establish to achieve the most effective screening. The separate LCAs each recognise however that the existing landscape, dominated by intensive agriculture, has lost many of its historic landscape features such as fen and hedgerows. As a result its landscape quality is relatively low despite the area being relatively undeveloped*'.
- 6.70 The proposal is within an undeveloped part of Thurrock, which is unfortunate. The design and mitigation methods put forward have sought to minimise harm and restore and enhance landscape features. When balancing the landscape and visual effects with the need to produce cleaner energy it is not considered that objection to the scheme on landscape and visual grounds could be substantiated.

III. TRAFFIC IMPACT, ACCESS AND PARKING

- 6.71 The highways issues relating to this development proposal are predominantly for the construction and the decommissioning phases of the development. There would be two construction vehicle access points on Fen Lane. Most of construction vehicles would access the site via an existing agricultural access on Fen Lane to the east of the junction with Dunnings Lane which is within Thurrock. This access is already used by large vehicles and is considered suitable for HGVs.
- 6.72 The applicant has confirmed there would be an average of 5 to 6 HGVs per day (10 to 12 two-way movements) during the construction phase of 40 weeks. The operational period would require a small amount of vehicular movements; it is likely there would be two LGV movements a month. There are concerns from local residents regarding the routing of the HGVs through Bulphan village itself and the A128, however this is the most direct and practical route. It is of a suitable width without weight or height restrictions and is therefore considered appropriate to accommodate vehicles associated with the construction phase. Other routes were investigated by the applicant, but these roads are not suitable for larger vehicles. The applicant's Construction Traffic Management Plan (CTMP) states HGV construction traffic would be routed to avoid right turns onto the A128 on the outbound trip and via A13 so left hand turns only.

- 6.73 The timings of the HGV movements would be restricted to times outside of school hours and rush hour, so only between 9.30am and 2.30pm Mondays to Fridays and 8am to 1pm on Saturdays, with none allowed on Sundays or Bank Holidays. There would also be road condition surveys required by condition to ensure that if any damage does occur to the highway that is put right at the cost of the applicant.
- 6.74 It is concluded that, subject to planning conditions, construction traffic associated with the proposal would not have a material effect on the safety or operation of the local highway network.

IV. AGRICULTURAL LAND CLASSIFICATION

- 6.75 The Planning Practice Guidance (PPG) identifies a number of factors which should be taken into account by local planning authorities when determining applications for large-scale PV solar farms, including encouraging the effective use of land by focussing large scale solar farms on previously developed and non-agricultural land, provided that it is not of high environmental value. The PPG highlights that best quality agricultural land (Grades 1, 2 and 3a) should be preserved with preference being given to areas of poorer quality land (Grades 3b, 4 and 5).
- 6.76 Based on the submitted site specific Agricultural Land Classification report all the land within the proposal site is classified as grade 3b. The findings of the detailed site-specific land classification study report show that the land is capable of being developed as a solar farm as its temporary loss will not adversely affect agricultural productivity in the area. The DCLG publication 'planning practice guidance for renewable and low carbon energy' (July 2013), recognises that solar farms are temporary structures. At the end of the 35 year period of the panels being in place, the land would be restored to its existing agricultural use and this will be controlled by a condition.

V. EFFECT ON NEIGHBOURING PROPERTIES

- 6.77 Whilst the site is rural in nature there are some properties nearby, notably Fen Farm and Cottages and Judds Farm. The Council's Environmental Health Officer has confirmed that in terms of noise they do not consider the proposal would lead to any unacceptable noise to any sensitive receptors.
- 6.78 In terms of visual effects to these nearby properties, there would be an effect to their outlook where it is towards the solar panels. However, these would be set back at least 10m from the boundary of the proposal site and therefore this means the set back from the properties would be considerable. The panels would not be within close

proximity to Fen Farm and Cottages and Judds Farm and the effect would not be unreasonable.

- 6.79 The glint and glare from the solar panels is very little. They are made up of silicon-based PV cells that are encased in a glass covering. Glass does not have a true specular reflection but does reflect a certain magnitude of light. The manufacturers of the panels use anti-reflective coating in the glass that changes the reflectivity from specular distribution to diffuse distribution. Therefore, as light falls onto the solar panels, most of the sunlight is transmitted to the cell beneath the glass with only a small amount reflected back in a multiple of angles and magnitudes. The result is an object that is perceived to have very little glare.

VI. FLOOD RISK

- 6.80 Part of the site lies within Flood Zone 3, the high probability zone. The Environment Agency have confirmed a solar farm is considered to be 'essential infrastructure' land use in Table 2: Flood Risk Vulnerability Classification of the Planning Practice Guidance. It is therefore necessary for the application to pass the Sequential and Exception Tests, which is the responsibility of the Council. The Environment Agency do not object.

Sequential Test

- 6.81 The proposal has to be in its proposed location due to the available capacity in the national grid in the area, owing to its close proximity to the electricity distribution station just to the north west of the site. Additionally, there are no known available sites of 138 hectares which are located wholly within an area of lower flood risk. Therefore, it is considered that the Sequential Test is passed.

Exception Test

- 6.82 The Flood Risk Vulnerability Classification requires that the Exception Test is also applied. The NPPF states that:

“For the exception test to be passed it should be demonstrated that:

- a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and*
- b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall”*

- 6.83 The design of the proposed layout has incorporated any vulnerable parts of the proposal in the areas at lowest risk of flooding. So, the substation and battery storage area would be located outside areas at risk of fluvial flooding, reservoir flooding and the tidal breach extent. The solar panels would be elevated on framework at least 0.8m above ground level, and, therefore, would not impede any surface water flowpaths or displace any ponding of surface water. The Flood Risk Assessment demonstrates that the development would not result in any increase in flood risk off-site or it increase flood risk on-site. Therefore, the proposal is considered to meet the exception test.
- 6.84 In terms of surface water drainage, the Council's Flood Risk Manager has confirmed that they do not object to the proposal with a condition regarding landscaping details, soil management plan, maintenance plan, the details of organisation responsible for maintenance and a confirmation that site will be maintained during its installation and operational period has been submitted to, and approved in writing by, the local planning authority.

VII. ARCHAEOLOGY

- 6.85 The Historic Environment Record shows that the proposed development covers a large area of the Bulphan Fen where very little archaeological research has been undertaken. The one piece of archaeological work on the edge of the development area has shown the presence of Bronze Age occupation within a thin pipeline corridor. The Heritage statement has not only identified the potential of field 4 but has also identified the site of the former farm of Castle's Farm. The date of Castle's Farm remains unclear and it would be hoped that development could avoid this area if this is identified as being of medieval or earlier date. Castle Farm was Castle Field in 1429 and the Place name Bulphan derives from marshland marked by a *burh* or fortified place which raises the question whether Castle Farm lies on the site of the former *Burh*.
- 6.86 The Council's Archaeology Advisor has confirmed they have no objections to the proposal with conditions to mitigate any possible effect to archaeology.

VIII. BUILT HERITAGE ASSETS

- 6.87 The Council's Historic Buildings Advisor has advised *there is a lack of visibility between the designated heritage assets, resulting from the tall hedges and trees within the study area, the site would be obscured from view. In addition, views of the designated heritage assets from within the site are equally obscured. Due to hedges and trees, there is no view of the spire of Grade I Listed church of St Mary in Bulphan*

(List Entry 1111617) and any views of the church from the site are not considered to have historic significance.

- 6.88 The development proposed would not have a negative impact on the setting of the designated heritage assets and would not result in harm to their significance. The development would result in less than substantial harm to the non-designated heritage assets within the site and this harm should be weighed against the public benefits of the proposed development, in line with local policies and Paragraph 196 of the NPPF. Therefore, it is considered any effect to built heritage assets are outweighed by the public benefits of cleaner energy generation.

IX. ECOLOGY

- 6.89 Ecological surveys were undertaken to support the application. These found that most of the existing habitats were of generally local ecological value, being dominated by arable and improved grassland. Habitats of Principal Importance included hedgerows (although these were species poor and often poorly maintained) and ponds, two of which contained Great Crested Newts. One badger sett was recorded and an assemblage of 11 nesting bird species of principal importance. While no water vole were recorded these were scoped in due to part records of presence within the Mardyke.
- 6.90 Mitigation measures have been incorporated into the Landscape and Ecological Management Plan (LEMP). These include measures to buffer and enhance existing hedges, and the planting of new hedges, creating woodland buffers, ecologically appropriate grassland throughout the site and buffers around existing ponds and watercourses. Measures have been incorporated to benefit a range of protected species. It is agreed that the proposed measures should result in some beneficial effects.
- 6.91 Given the poor condition and generally low value of the existing habitat it is agreed that proposed ecological mitigation and enhancement measures should result in a significant biodiversity net gain. The Council's Landscape and Ecology Advisor has stated that, should the scheme be permitted, it is important that the LEMP is reviewed in light of the emerging Lower Thames Crossing mitigation for the area; in particular this could see increased potential for water vole along the Mardyke. In view of the above there is no objection to the proposal on ecology grounds.

X. PLANNING OBLIGATIONS

- 6.92 The applicant has offered a Community Benefit Agreement, with suggestions of a contribution towards Bulphan in Bloom or children's play equipment in a local park.

However, it is not considered that the proposed agreement would meet the tests as the NPPF requires that any S106 agreement should be:

- necessary to make the development acceptable in planning terms;
- directly related to the development; and
- fairly and reasonably related in scale and kind to the development.

The Community Benefit Fund would not meet any of the requirements of a S106 agreement.

XI. EIA MATTERS

6.93 In coming to its view on the proposed development the local planning authority has taken into account the content of the ES submitted with the application, further information to the ES, as well as representations that have been submitted by third parties. The ES considers the potential impacts of the proposal and sets out appropriate mitigation measures.

6.94 The ES considers the impact of the development in terms of landscape and visual matters. Subject to appropriate mitigation which can be secured appropriate planning conditions, the ES concludes that any impact arising from the construction and operation of the development would be within acceptable limits and would not be significant. Having taken into account representations received from others, Officers consider that the proposed development is acceptable, subject to referral to the Secretary of State and compliance with a number of planning conditions to be imposed upon any consent granted.

7.0 CONCLUSIONS AND REASONS FOR APPROVAL

7.1 The proposals would comprise inappropriate development in the GB. Furthermore, the proposed development would lead to a loss of openness and would, to a degree, be harmful to purpose (c) of including land within the Green Belt. Substantial weight should be attached to this harm in the balance of considerations.

7.2 The applicant has cited a number of factors which are promoted as comprising very special circumstances which outweigh the harm to the GB. It is considered that significant weight should be attached to the benefits of providing renewable energy, including the reduction in carbon emissions. The temporary nature of the development attracts some weight and weight can also be attached to the economic, social and environmental benefits of the proposals. On balance it is concluded on this point that the benefits of the proposals clearly outweigh the substantial harm to

the Green Belt described above, and therefore a departure from normal GB policies is justified.

- 7.3 There are no objections to the proposals on the grounds of impact on amenity, heritage assets, flood risk or the surrounding highways network. The proposals also have the potential to provide benefits to ecology in the form of habitat creation and the proposals would ensure the continued agricultural use of the land. Finally, the proposals would not result in any material harm to landscape and visual receptors.

8.0 RECOMMENDATION

8.1 Grant planning permission subject to:

- (i) Referral to the Secretary of State under the terms of the Town and Country Planning (Consultation) (England) Direction 2009; and
- (ii) Subject to the application not being called-in by the Secretary of State for determination, grant planning permission subject to the following conditions:

TIME LIMIT

1. The development hereby permitted shall be begun before the expiration of three years from the date of this permission.

Reason: To comply with Section 91(1) of The Town & Country Planning Act 1990 as amended by Section 51 of the Planning and Compulsory Purchase Act 2004.

PLANS LIST

2. The development hereby permitted shall be carried out in accordance with the following approved plans:

Plan Number(s):		
Reference	Name	Received
BF1.0 Rev v.b	Consolidated Location Plan	20 January 2021
BF1.1 Rev v.b	Location Plan 1 (Havering)	20 January 2021
BF1.2 Rev v.b	Location Plan 2 (Thurrock)	20 January 2021
BF2.0 Rev v.b	Consolidated Site Location Plan	20 January 2021
BF2.1 Rev v.c	Consolidated Location Plan 1 (Havering)	20 January 2021
BF2.2 Rev v.c	Consolidated Location Plan 2 (Thurrock)	20 January 2021

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BF3.0 Rev 03	PV Elevations	20 January 2021
BF4.0 Rev 01	Inverter/Transformer Stations	20 January 2021
BF5.0 Rev 01	Internal Access Road Detail	20 January 2021
BF6.0 Rev 01	Fence and Gate Elevations	20 January 2021
BF7.0 Rev 01	Weather Station	20 January 2021
BF8.0 Rev 01	Substation Elevations	20 January 2021
BF9.0 Rev 01	Control Room Elevations	20 January 2021
BF10.0 Rev 01	Auxiliary Transformer	20 January 2021
BF11.0 Rev 01	CCTV Elevations	20 January 2021
BF12.0 Rev 01	Battery Container Elevations 40ft	20 January 2021
BF13.0 Rev 01	Storage Container Elevations 40ft	20 January 2021
BF13.0 Rev 01	PV Elevations Ballast	17 May 2021
BF14.0 Rev v.a	Field Topographical Data	20 January 2021
7509_005_D	Landscape and Ecological Enhancement Plan	20 January 2021
No no's	Preliminary Greyscale	17 May 2021

Reason: For the avoidance of doubt and to ensure that the development is carried out in accordance with the details as approved with regard to policies PMD1 and PMD2 of the adopted Thurrock LDF Core Strategy and Policies for the Management of Development [2015].

TEMPORARY PERIOD AND DECOMMISSIONING

3. Planning permission is hereby granted for a temporary period of 35 years from the first commercial export of energy. No later than one week before the first commercial export of energy the applicant shall supply written notice of the first commercial event. On the 35th anniversary of the first commercial export of energy the use shall cease. Prior to the 35th anniversary of the first commercial export of energy the solar panels and all ancillary equipment and structures shall be decommissioned and removed from the site in accordance with the Decommissioning Method Statement agreed pursuant to Condition 4.

Reason: In order to accord with the terms of the submitted planning application and to ensure the satisfactory restoration of this Green Belt site.

DECOMMISSIONING METHOD STATEMENT

4. Within three months of the cessation of power production on the site a Decommissioning Method Statement shall be submitted to and approved in writing

by the local planning authority. The Statement shall include the timing for decommissioning of the solar farm if it ceases to be operational, along with the measures, and a timetable for their completion, to secure the removal of panels, plant, fencing and equipment. Decommissioning shall be carried out in accordance with the approved Statement and details including the timing of works.

Reason: To ensure the satisfactory restoration of the site in the Green Belt in accordance with policy PMD6 of the adopted Thurrock LDF Core Strategy and Policies for the Management of Development [2015].

CONSTRUCTION PERIOD

5. The construction period shall be no more than 40 weeks unless otherwise agreed in writing by the local planning authority. Notice of commencement of the development must be given to the local planning authority in writing no less than one week before commencement.

Reason: In order to minimise any adverse impacts arising from the construction of the development in accordance with policy PMD1 of the adopted Thurrock LDF Core Strategy and Policies for the Management of Development [2015].

CONSTRUCTION TRAFFIC MANAGEMENT PLAN [CTMP]

6. Construction and decommissioning works on site shall only take place in accordance with the CTMP (ref. R005 dated June 2021) and in particular the following elements of that document:
 - Routing of construction vehicles; and
 - Time of HGVs accessing the site

Reason: In order to minimise any adverse impacts arising from the construction of the development in accordance with policy PMD1 of the adopted Thurrock LDF Core Strategy and Policies for the Management of Development [2015].

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN [CEMP]

7. No construction works shall commence until a Construction Environmental Management Plan [CEMP] has been submitted to and approved in writing by the

local planning authority in writing. The CEMP should contain or address the following matters:

- (a) Details of construction any access or temporary access, and details of temporary parking requirements;
- (b) Location and size of on-site compounds [including the design layout of any proposed temporary artificial lighting systems];
- (c) Details of any temporary hardstandings;
- (d) Details of temporary hoarding;
- (e) Contact details for site managers including information about community liaison including a method for handling and monitoring complaints;
- (f) Wheel washing facilities; and
- (g) Days and hours of construction activities.

Works on site shall only take place in accordance with the approved CEMP.

Reason: In order to minimise any adverse impacts arising from the construction of the development in accordance with policy PMD1 of the adopted Thurrock LDF Core Strategy and Policies for the Management of Development [2015].

ROAD CONDITION SURVEY

8. No construction works shall commence until a Road Condition Survey, the details of which to be previously agreed in writing by the local planning authority has been submitted to and approved in writing by the local planning authority. A further Road Condition Survey shall then be submitted within one month of the completion of construction works. Any degradation of existing road surfaces directly due to the impact of construction of the development will be remediated in accordance with details to the previously agreed in writing by the local planning authority.

Reason: In order to safeguard the amenities of neighbouring occupiers and in the interests of visual amenity of the area in accordance with policies PMD1 and PMD2 of the adopted Thurrock LDF Core Strategy and Policies for the Management of Development [2015].

HGV BOOKING SYSTEM

9. HGV movements from the site shall be limited to a maximum of 14 two-way movements per day (7 in and 7 out movements) A log of HGV movements shall be kept and submitted to the local planning authority for review upon written request.

This log shall record details of the registration, origin, destination and operators of each HGV entering and leaving a plot within the site and the time of such movements.

Reason: In the interests of amenity and highway and pedestrian safety, in accordance with policy PMD1 of the adopted Thurrock LDF Core Strategy and Policies for the Management of Development [2015].

ACCORDANCE WITH ENVIRONMENTAL STATEMENT

10. The development hereby permitted shall be carried out in accordance with the recommendations and mitigation measures contained with the Environmental Statement and schemes submitted with the application. Reason: To protect and improve the appearance of the site in the interests of visual amenity of the area and to provide biodiversity enhancement opportunities, in accordance with policy PMD1, PMD2, PMD6 and PMD7 of the adopted Thurrock LDF Core Strategy and Policies for the Management of Development [2015].

LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN (LEMP)

11. The landscape and ecological mitigation measures and schemes within the LEMP (document R009 Landscape and Ecological Management Plan and plan number 7509_005_D) shall be implemented in full in accordance with the approved program with the new planting carried out in the first available planting season after the commencement of the development unless otherwise agreed in writing by the local planning authority and shall be maintained as approved for the duration of the approved development. Any trees or plants, which within a period of five years from the completion of the development die, are removed or become seriously damaged or diseased, shall be replaced in the next planting season with others of a similar size or species unless the local planning authority approves alternatives in writing.

Within 6 months of the first export of energy from the site the applicant shall undertake a review of the LEMP to consider whether there are opportunities for further enhancement as a result of mitigation proposals associated with the Lower Thames Crossing shall be submitted to and approved in writing by the local planning authority. If this review concludes there are reasonable further enhancements as a result of the Lower Thames Crossing, these enhancements shall be implemented as agreed.

Reason: To protect and improve the appearance of the site in the interests of visual amenity of the area and to provide biodiversity enhancement opportunities, in accordance with policy PMD1, PMD2, PMD6 and PMD7 of the adopted Thurrock LDF Core Strategy and Policies for the Management of Development [2015].

ARCHAEOLOGICAL WORK AND MITIGATION

12. No demolition/development or preliminary groundworks shall take place until the Applicant or their successors in title has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation and specification which has been submitted to and approved in writing by the local planning authority. Following on from the works of investigation, no demolition/development or preliminary groundworks shall take place until the outcome of the investigations have been submitted to and agreed in writing with the local planning authority. The outcome of the investigations shall also detail any further safeguarding measures to ensure preservation in situ of any important archaeological remains and / or further archaeological investigation, such agreed measures shall be employed in accordance with the agreed scheme and timetable.

Reason: To ensure appropriate assessment of the archaeological implications of the development and the subsequent mitigation of adverse impacts in accordance with Policy PMD4 of the adopted Thurrock LDF Core Strategy and Policies for the Management of Development [2015].

ARCHAEOLOGY – POST EXCAVATION ASSESSMENT

13. The applicant will submit to the local planning authority a post excavation assessment (to be submitted within six months of the completion of the fieldwork, unless otherwise agreed in advance with the Local Planning Authority). This will result in the completion of post excavation analysis, preparation of a full site archive and report ready for deposition at the local museum, and submission of a publication report.

Reason: To ensure that investigation and recording of any remains takes place in accordance with Policy PMD4 of the adopted Thurrock LDF Core Strategy and Policies for the Management of Development [2015].

EXTERNAL LIGHTING/SECURITY MEASURES

14. No external artificial lighting or other security measures other than those agreed as part of this permission shall be installed during the operation of the site as a solar PV facility without the prior written agreement of the Local Planning Authority.

Reason: In the interests of amenity and ecology and biodiversity and to ensure that the development can be integrated within its immediate surroundings in accordance with Policies PMD1 and PMD2 and PMD7 of the adopted Thurrock LDF Core Strategy and Policies for the Management of Development [2015].

Informative(s)

1. Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended) - Positive and Proactive Statement:

The Local Planning Authority has acted positively and proactively in determining this application by identifying matters of concern within the application (as originally submitted) and negotiating, with the Applicant/Agent, acceptable amendments to the proposal to address those concerns. As a result, the Local Planning Authority has been able to grant planning permission for an acceptable proposal, in accordance with the presumption in favour of sustainable development, as set out within the National Planning Policy Framework.

2. Public Rights of Way The grant of planning permission does not permit any changes, alterations, obstructions, diversions, closures or additional use by motor vehicles of any public rights of way affected by the proposal, the developer is required to contact the Council's public rights of way team for permission prior to undertaking any works.

Documents:

All background documents including application forms, drawings and other supporting documentation relating to this application can be viewed online:

www.thurrock.gov.uk/planning

