

Application Ref: 20/01141/FUL

Proposal: Solar Farm and Battery Energy Storage System, landscaping and associated infrastructure

Site: Land To The South Of Buntings Lane, Stanground, Peterborough, PE7 3DN

Applicant: .
Cambridgeshire County Council

Agent: Mr Tom Woof
Prospus Group Limited

Referred by: Head of Planning

Reason: Public interest

Site visit: 28.03.2019

Case officer: Mr A O Jones

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Recommendation: **GRANT** subject to relevant conditions

1 Description of the site and surroundings and Summary of the proposal

Proposal

The proposal is for a photovoltaic solar farm with a generating capacity of 2.93MW and a 25-30 year lifespan, including energy storage containers (for 3 batteries) and ancillary facilities on approximately 4.98ha of the 12.3ha former Stanground landfill site. The energy generation is equivalent to generating sufficient electricity to power approximately 700 homes.

The panels, of 'freestanding, weighted' design to ensure non-penetration of the underlying landfill cap, will be arranged in rows to face south, along an east-west axis. The racks will be a maximum of 2.5m above ground floor level, with no earthworks required to facilitate construction. Battery storage, inverters and other ancillary equipment will be located at the northern end of the site behind a 3.2m acoustic fence set back a minimum of approximately 14m from the nearest dwelling, to provide noise mitigation. Security fencing and a CCTV system will also be provided. A 2.0 - 2.2m high livestock fence will be provided to enclose the panels and ancillary equipment, with no alterations to existing site boundary fencing.

The proposals also include ecological surveys and monitoring to inform appropriate mitigation, and a comprehensive landscaping scheme. The construction period is estimated to take around 24 weeks, requiring a total of 116 HGV deliveries, with HGV traffic generation peaking at around 2 deliveries per day.

Access to the site will be from the redundant A605 off slip to the north, with egress provided to the A605 Stanham way to the southwest.

Site and Surroundings

The proposal site, which extends to some 4.98ha, lies within the former Stanground Landfill site off Buntings Lane. The pond to the south of the landfill site forms the southern boundary, although it is not included within the application site. Beyond the pond lies the A605, and a small number of fields that sit between the village of Farcet and the Amazon depot. The eastern boundary runs parallel with the B1091, between which residential development has recently been built up to the

site boundary. A Grade 11 windmill sits between the site and housing to the southeast. Buntings Lane, which is a multi-use path, forms the northern boundary to the site, beyond which lies a County Wildlife Site and residential development off Hoylake Drive. The A1139 Fletton Parkway lies beyond Buntings Lane, to the north and north west, beyond the redundant slip roads which are also included within the application area. The land falls away to the west of the site boundary down towards Stanground Lode where the Green Wedge continues until it meets the A605, beyond which lies the Hampton General Employment Area (Local Plan policies LP4, GEA4).

The site itself is largely comprised of gently undulating open grazing land contained behind palisade fencing and hedging to the north, west and east boundaries. Access is provided at the north western edge of the landfill site where the former slip roads cross the pathway of Buntings Lane.

2 Planning History

Reference	Proposal	Decision	Date
03/01522/MMFUL	Erection of metal kiosk containing gas monitoring cabinet	Permitted	22/01/2004
03/00034/MMFUL	Palisade security fencing around gas monitoring compound	Permitted	19/03/2003
93/P0696	Removal of material from flood plain to compensate for new embankments in flood plain (revised plan SK100C) (as elaborated by letters of 11.10.93 and 6.12.93 and amended by revised plan received 15.12.93)	Permitted	04/01/1994

3 Planning Policy

Decisions must be taken in accordance with the development plan policies below, unless material considerations indicate otherwise.

Peterborough Local Plan 2016 to 2036 (2019)

LP01 - Sustainable Development and Creation of the UK's Environment Capital

The council will take a positive approach that reflects the presumption in favour of sustainable development within the National Planning Policy Framework. It will seek to approve development wherever possible and to secure development that improves the economic, social and environmental conditions in the area and in turn helps Peterborough create the UK's Environment Capital.

LP13 - Transport

LP13a) New development should ensure that appropriate provision is made for the transport needs that it will create including reducing the need to travel by car, prioritisation of bus use, improved walking and cycling routes and facilities.

LP13b) The Transport Implications of Development- Permission will only be granted where appropriate provision has been made for safe access for all user groups and subject to appropriate mitigation.

LP13c) Parking Standards- permission will only be granted if appropriate parking provision for all modes of transport is made in accordance with standards.

LP13d) City Centre- All proposal must demonstrate that careful consideration has been given to prioritising pedestrian access, to improving access for those with mobility issues, to encouraging cyclists and to reducing the need for vehicles to access the area.

LP14 - Infrastructure

Permission will only be granted where there is, or will be via mitigation measures, sufficient infrastructure capacity to support the impacts of the development. Developers will be expected to contribute toward the delivery of relevant infrastructure.

LP16 - Urban Design and the Public Realm

Development proposals would contribute positively to the character and distinctiveness of the area. They should make effective and efficient use of land and buildings, be durable and flexible, use appropriate high quality materials, maximise pedestrian permeability and legibility, improve the public realm, address vulnerability to crime, and be accessible to all.

LP17 - Amenity Provision

LP17a) Part A Amenity of Existing Occupiers- Permission will not be granted for development which would result in an unacceptable loss of privacy, public and/or private green space or natural daylight; be overbearing or cause noise or other disturbance, odour or other pollution; fail to minimise opportunities for crime and disorder.

LP17b) Part B Amenity of Future Occupiers- Proposals for new residential development should be designed and located to ensure that they provide for the needs of the future residents.

LP19 - The Historic Environment

Development should protect, conserve and enhance where appropriate the local character and distinctiveness of the area particularly in areas of high heritage value.

Unless it is explicitly demonstrated that a proposal meets the tests of the NPPF permission will only be granted for development affecting a designated heritage asset where the impact would not lead to substantial loss or harm. Where a proposal would result in less than substantial harm this harm will be weighed against the public benefit.

Proposals which fail to preserve or enhance the setting of a designated heritage asset will not be supported.

LP22 - Green Infrastructure Network

The council in partnership with others will seek to maintain and improve the existing green infrastructure. Strategic and major development proposals should incorporate opportunities for green infrastructure. Proposals will be expected to provide clear arrangements for long term maintenance and management. Development must protect existing linear features of the green infrastructure network. Proposals which would cause harm will not be permitted unless the need for and benefits of the development demonstrably outweigh any adverse impacts.

LP26 - Green Wedges

Green wedges have been identified to fulfil specific functions and aims. Permission for development within these area will only be granted where it can be demonstrated that this would not be contrary or detrimental to the objectives. Development adjacent to them will only be granted where there would be no adverse impact on their function.

LP28 - Biodiversity and Geological Conservation

Part 1: Designated Site

International Sites- The highest level of protection will be afforded to these sites. Proposals which would have an adverse impact on the integrity of such areas and which cannot be avoided or adequately mitigated will only be permitted in exceptional circumstances where there are no suitable alternatives, overriding public interest and subject to appropriate compensation.

National Sites- Proposals within or outside a SSSI likely to have an adverse effect will not normally be permitted unless the benefits outweigh the adverse impacts.

Local Sites- Development likely to have an adverse effect will only be permitted where the need

and benefits outweigh the loss.

Habitats and Species of Principal Importance- Development proposals will be considered in the context of the duty to promote and protect species and habitats. Development which would have an adverse impact will only be permitted where the need and benefit clearly outweigh the impact. Appropriate mitigation or compensation will be required.

Part 2: Habitats and Geodiversity in Development

All proposals should conserve and enhance avoiding a negative impact on biodiversity and geodiversity.

Part 3: Mitigation of Potential Adverse Impacts of Development

Development should avoid adverse impact as the first principle. Where such impacts are unavoidable they must be adequately and appropriately mitigated. Compensation will be required as a last resort.

LP31 - Renewable and Low Carbon Energy

Development proposals will be considered more favourably where they include measures to reduce energy demand and consumption, incorporate sustainable materials, incorporate decentralised or renewable energy or carbon off setting. Proposals for non-wind renewable energy will be considered taking account of the impact of the landscape including heritage assets, amenity, highways and aviation. Wind proposals will also only be considered if in addition to these factors the site is in an adoptable Neighbourhood Plan and the proposal has local support.

LP32 - Flood and Water Management

Proposals should adopt a sequential approach to flood risk management in line with the NPPF and council's Flood and Water Management SPD.. Sustainable drainage systems should be used where appropriate. Development proposals should also protect the water environment.

LP33 - Development on Land Affected by Contamination

Development must take into account the potential environmental impacts arising from the development itself and any former use of the site. If it cannot be established that the site can be safely developed with no significant future impacts on users or ground/surface waters, permission will be refused.

4 Consultations/Representations

PCC Rights of Way Officer (19.10.20)

No objections subject to the bridleway (which crosses the site entrance) remaining open and unobstructed during construction works, with appropriate pre-cautions taken for visibility splays and equestrian users.

PCC Pollution Team (09.10.20)

No objections. It is clear from the application that the need to avoid any pollution linkages that may affect local residents or the environment is understood. With regards to the noise report, the proposed acoustic fence is appropriate mitigation and should be controlled by condition.

PCC Ecologist (12.11.20)

The proposals have the potential to impact protected species (Great Crested Newts), so any works will be subject to GCN license. The recommendations from the Biodiversity Strategy report are acceptable, however, detailed landscape and ecological management plans (LEMP) and landscaping proposals should be secured by condition.

PCC Peterborough Highways Services (30.11.20)

No objections further to the receipt of clarifications around issues including the use of the 'customer cabin' as a shelter / store for maintenance staff (ie not a 'public-facing' unit) and the

suitability of the site access to provide sufficient safety and width for larger vehicles. A number of issues have also been highlighted for the applicant to address when seeking separate consent to undertake works affecting the highway through the S278 process, however, the principle of the proposal is acceptable subject to a number of conditions being imposed, including restricted hours for deliveries due to the peak traffic flows. The Local Highways Authority is content that the Glint and Glare Assessment has not identified significant impact on the surrounding public highways.

Lead Local Drainage Authority (17.11.20)

Further to the initial submission, additional details have been provided to demonstrate the suitability of the proposed surface water drainage proposals. Subject to appropriate control of the drainage scheme, the Drainage Team have no objections.

Archaeological Officer (05.11.20)

No objections. The applicant has demonstrated that there has been widespread disturbance to the ground, and there is no requirement for an archaeological programme of work.

PCC Conservation Officer (30.10.20)

No objections. The proposal will not have an adverse impact on the character and appearance of the nearby listed windmill due to the intervening residential development. However, due to the elevated nature of the site, careful consideration should be given to the landscaping around the perimeter of the site to ensure the visual impact is contained as far as possible.

Peterborough Cycling Forum (21.10.20)

No objections. The cycle forum were pleased to note that signage where the access route crosses the shared pedestrian / cycle path will state that pedestrians and cyclists have priority as is recommended best practice.

Environment Agency (12.10.20)

No objections. The integrity of the landfill cap will not be compromised as the design is considered not to be likely to penetrate the cap at any point. The site is outside of Flood zone 3 so the Environment Agency have no comment on flood risk.

Natural England - Consultation Service (19.10.20)

No objections. Natural England considers that the proposed development will not have significant adverse impacts on statutorily protected nature conservation sites or landscapes.

Local Residents/Interested Parties

Initial consultations: 311
Total number of responses: 27
Total number of objections: 25
Total number in support: 2

27 representations were received, of which 25 were objections.

Objections

The objections can be considered under the following broad issues; health, amenity, ecology and transport. Although within these broad areas there was considerable crossover between how the impacts of the proposal would be felt. There were also a number of matters that do not constitute material planning considerations.

Health

With regards to health, a number of general health concerns for nearby residents. Amongst the

specific health concerns raised where concerns that any reflections may have a strobing effect causing epileptic fits, and concerns with the release of Hydrogen Fluoride resulting from the danger of fires with lithium ion batteries (the latter pointing to concerns raised with regards to the Cleve Hill solar scheme, which proposed a 350MW solar power station with 700MWh battery energy storage). A concern was also raised with regard to the impact of electromagnetic interference and / or radiation to the environment and public health.

Amenity

With regards to amenity impacts, the main concerns raised related to noise and visual impact, during both the construction and operation phases, with views of horses, wildlife and open space being considered important, and views of solar panels considered to be 'ugly', an 'eyesore' and ruining the surrounding countryside. Views onto and across the open land at the proposal site were considered important from both residential and public locations (ie the path to the north of the site), and concern was expressed that such impacts were only assessed from first, not second floor windows.

The proposed siting of the inverter, identified as the noisiest element of the proposal, being located close to residential dwellings was questioned. As was the cumulative impact of the intermittent night time noise from the dual carriageway set against the inverter noise. It was also queried as to whether the replacement of vegetation with solar panels would increase noise and air pollution from the dual carriageway, and amplify carbon emissions, as well as an assertion that the loss of vegetation would definitely affect air quality.

Unspecified concerns were raised about the general proximity of the proposal to residential dwellings. Reflection and glare were also raised as general impacts of concern.

The concern related to electromagnetic interference (as described above), also queried if there would be an impact on wi-fi or speaker signals which were presented as 'standard of life' issues. Odour and smell was also raised, although it was not clear if this related to concerns about the impact of developing on the existing landfill site or construction and operation of a solar array per se.

Ecology

The proposal site was noted as being a home for horses, and a haven for wildlife, including foxes, badgers, rabbits, deer, bugs butterflies and birds (including Red Kites); all of which were considered to also contribute to the beauty of the landscape (as noted above). General concerns were raised that too much green land for wildlife is being destroyed and that natural eco-systems needed to be supported; a sentiment repeated throughout multiple representations was that there was a need to maintain open land for wildlife. Concern was also raised with regard to the impact on wildlife with setting up the site (ie the construction phase) in conjunction with the extent of other building work nearby (which would also impact on the 'peace' of the locality).

Concerns were also raised about the impact on the nearby Great Crested Newt population at the nearby County Wildlife Site, and how they would be affected by the proposal.

Traffic

Concerns was also raised with regards to the increases traffic to and from the site, the access, and the potential use of the bridleway for access purposes.

Other points (non-material considerations)

The proposal was described as not necessary. Alternative locations, including land surrounding the Amazon depot and by the sides of roads were suggested. It was queried why new buildings were given permission without solar power. There were also concerns raised about a negative impact on

house prices.

Support

2 representations were received in support of the proposal, with one stating that it was 'much needed.

The second letter of support came from the CPRE, although this was qualified with the following questions being raised;

- Has there been a proper risk assessment for electrical discharge to cause explosion of any escaping landfill gas (methane)?
- Has provision been made for a contribution to recycling research costs and / or a site clearance and disposal fund (due to the lack of facilities for recycling old solar panels)?
- How will stands be protected from the effects of shifting ground as the landfill subsides?
- Will there be a genuine bio-diversity gain and will it add to the Bug Life projects?

5 Assessment of the planning issues

The main considerations are;

Suitability of the proposal
Safety and Technical Issues
Ecology
Landscape
Visual Impact
Glint and Glare
Noise and Disturbance
Conservation
Traffic and Transport
Water Environment

Suitability of the proposal

The proposal site is located within a designated Green Wedge under Local Plan policy LP26. The Green Wedge, being a former landfill site, does not provide an accessible recreational resource, rather, it helps to protect the separate identity, local and historic character of the area. The proposed solar array is not considered to adversely impact on the function of the Green Wedge in this location

The remainder of this report will demonstrate how issues around the landscape character and visual impact, as well as ecology are considered, and why the proposal retains the open and undeveloped character of the Green Wedge and the physical separation between settlements, improves the quality of green infrastructure, and ensure that the nearby path network, for all users, will be maintained. Although there is scope to provide a viewing area and information boards within the site, due to the on-going requirements of safely maintaining the landfill site, no public access can be, or is expected to be, provided at the proposal site other than by appointment with the site landowner which can be controlled and is not expected to be of a significant scale. As such, the proposal is considered to accord with policy LP26.

Through the expected production of 2.93MW of electricity, the proposal is also considered to contribute positively to the infrastructure required to support growth in the city, as set out in Local Plan policy LP14.

The Local Plan also sets out specific criteria against which to consider proposals for non-wind renewable energy development under policy LP31. As a former landfill site being used for pastoral purposes (ie grazing pasture for horses), it has not been considered necessary to consider the Agricultural Land Classification (ie the soil quality and suitability for farming). However, the

remainder of this report will demonstrate how the impacts on heritage assets, residential amenity, highways and aviation have been considered against the benefits of the scheme, which primarily are considered to be the production of 2.93MW of renewable energy from a site which, as a former landfill site, has limited development potential.

As a former landfill site, there are significant limitations as to how it can be developed at all whilst maintaining the function of the Green Wedge. In this regard, the renewable energy generated from the site is considered to be a suitable means of fulfilling the function of the Green Wedge designation through the limitations of what can be developed at this location. The remainder of this report will demonstrate how the benefits of the scheme can be weighed against the impacts on the criteria set out in Peterborough Local Plan policy LP31 with regards proposals for non-wind renewable energy development.

Safety & Technical Issues

With regards to the concerns raised about the danger of fires with lithium batteries, the applicant has confirmed that the scheme will comply with relevant legislation, namely:

- i) the Electromagnetic Compatibility Directive (2014/30/EU) (The electromagnetic compatibility (EMC) Directive 2014/30/EU ensures that electrical and electronic equipment does not generate, or is not affected by, electromagnetic disturbance);
- ii) 'Electrical energy storage (EES) systems - Part 5-2: Safety requirements for grid-integrated EES systems - Electrochemical-based systems (IEC 62933 5 2:2020)', and will be designed and operated in accordance with a detailed risk assessment and risk mitigation strategy, to include risks relating to fire.

The following link provides further details on the IEC 62933 5 2:2020.
<https://webstore.iec.ch/publication/32177>

It is also noted that the Cleve Hill scheme which has been referred to in the representation is of a significantly different scale, comprising as it does over 120 battery containers, in comparison with the 3 proposed with this scheme. Notwithstanding the difference in scale, the proposal would also be subject to other regulations and controls, including those listed above. As such, the concerns with regards safety are considered to be adequately controlled by alternative legislation, and there is no reason to seek to replicate such controls through the planning system.

Another concern related to electromagnetic interference, and whether this would impact on wi-fi or speaker signals. Although this could be considered an amenity impact, due to its technical nature it is considered more appropriate to consider it in this section of the report. It is understood that electromagnetic radiation exists on a broad spectrum from radar waves to x-ray and gamma rays including light. It is possible that various electronic equipment can produce electromagnetic radiation and it can also be picked up by other electronic equipment. Where this is unwanted, it is known as Electromagnetic Interference (EMI). The applicant has confirmed that all standard electronic equipment is tested for EM compatibility both for the component emissions and the components when exposed to emissions, and gains a CE mark in Europe (ie compliance with all relevant European health, safety, performance and environmental requirements). All equipment used will be CE marked and comply with the Electromagnetic Compatibility Directive (2014/30/EU)

The application is accompanied by a GeoEnvironmental Appraisal; this establishes that the landfill cap (ie the compressed layer of bentonite clay that contains the waste) lies approximately 5m below ground level. The integrity of the landfill cap being by the minimal foundation design is therefore considered to be extremely low. The racking system, covering the majority of the site, is designed to be free standing, with no foundations. The foundations for the ancillary equipment, which is to be located to the north of the site, off the landfill cap, include depths of approximately 600mm for the battery housing, and up to 1500mm for the transformer station housing equipment. Cabling is expected to be no deeper than 850mm. Neither the Environmental Control Officer, nor the Environment Agency, who are responsible for the licensing of the landfill site have raised any

concerns with regards this aspect of the design.

The GA also recommends further trial boreholes before work commences; as the landholder remains responsible for the safety and integrity of the landfill site, there is no need or requirement to control (by condition) any further such work. As such, there are no concerns with regard to odour (escaping from the landfill site due to the design), or safety, with regards to escaping gases from the landfill site. Additionally, the GA notes the open-air nature of the site and considers the risk from escaping hazardous gases to be low. Landfill settlement is typically related to loading, compression and chemical factors (including the expulsion of gas), the majority of which will happen during immediate and primary periods of consolidation. Secondary settlement is a long-term phenomenon, and is generally far less pronounced; notwithstanding this, the proposal incorporates an element of redundancy in cabling to accommodate further uneven settlement, and will be subject to maintenance checks to ensure any out of tolerance settlement will be addressed as required. The proposals are considered to accord with Peterborough Local Plan policies LP16, LP17 and LP33.

Ecology

The proposal site is a restored landfill site that has been used for horse grazing. A County Wildlife Site, noted for its population of Great Crested Newts (GCN), lies to the north east of the site. The A1139 Frank Perkins Parkway lies to the north and northwest of the site, beyond the bridleway, foot and cycle path. The eastern flank of the site is adjacent to residential development. A pond sits at the southern extent of the site, beyond which lies the A605 dual carriageway. Undeveloped land falls away to the west of the site, through which the Stanground Lode flows.

The particular layout and location of the site have therefore allowed a distinct local habitat to develop. As well as potentially providing habitat for GCN, it has allowed the local community to engage with the natural sites of assorted species, including rabbits, foxes, deer, butterflies and birds. The proposal sites location within a 'Green Wedge' has also contributed to the character and perception of the site. A strength of feeling has been expressed through representations about the value of maintaining the site for the intrinsic value of its openness, concerns about the potentially negative impacts directly on wildlife as a result of the development, and more generally about wider environmental issues of impacting on carbon release through the loss of vegetation, and how such a loss may otherwise affect amenity (as discussed further in the 'Amenity' section of this report).

Development proposals must be assessed against Local Plan policy LP28 (Biodiversity and Geodiversity Conservation), which seeks to address the issues set out above. The policy states that proposals;

- must conserve and enhance the network of habitats, species and sites (both statutory and non-statutory) of international, national and local importance commensurate with their status and give appropriate weight to their importance.
- avoid negative impacts on biodiversity and geodiversity;
- deliver a net gain in biodiversity, where possible, by creating, restoring and enhancing habitats and enhancing them for the benefit of species, and;
- where necessary, protect and enhance the aquatic environment within or adjoining the site, including water quality and habitat.

The application is accompanied by a GCN Survey and Mitigation Strategy, a Biodiversity Impact Assessment (BIA), and detailed landscape proposals, all of which have been assessed by the Councils ecologist. The BIA uses a system that allows quantification of impact. This demonstrates a net gain of 1.16 biodiversity units, achieved primarily through the promotion of grassland and woodland habitats.

With regards to protected species, the GCN survey established that despite the presence of breeding GCN in a number of nearby waterbodies, none are expected on the site itself, although it

is possible that GCN may 'commute' or forage across the site. Although no direct impact on GCN is expected, additional survey prior to any works will be required, and should any direct mitigation be required this can be achieved under appropriate license through Natural England. The overall landscape proposals are considered likely to provide suitable additional habitat for GCN.

In broad terms, the landscape proposals for the site include the creation of high value habitat creation, including buffers of new native woodland and scrub habitats at northern, western and eastern boundaries, enhancement of two currently dry ditches to potentially seasonally wet features, and creation of species-rich long grassland between each solar panel.

The proposed Biodiversity Strategy is satisfactory, and the landscaping proposals will deliver a net gain in biodiversity. Any temporary loss of habitat during the construction period is therefore considered to be adequately recompensed, and enhanced subject to appropriate control by condition of the landscape proposals. Impacts on protected species will also be suitably controlled. The proposals are therefore considered to accord with Local Plan policies LP23 and LP28.

Landscape

The proposal site falls just outside the urban area boundary in the South Peterborough Brickfields landscape character sub-area 6b (Peterborough Landscape Strategy; Landscape Character Assessment for PCC, 2007).

The visual impact of the proposal was cited as a concern in representations, with some expressing the opinion that views of solar panels would be 'ugly' and an 'eyesore'. Views onto and across the open land of the proposal site were considered to be important from both residential and public locations (ie the path to the north of the site).

The application is accompanied by a Landscape and Visual Assessment which follows the "Guidelines for landscape and Visual Impact assessment, Third Edition, and landscape character guidance published by Natural England. This sets out to establish a summary of both the landscape sensitivity, and sensitivity of visual receptors, and the magnitude of change (as a result of the proposals) on landscape features and visual receptors. The study covers an area within 1km of the proposal site.

With regards to the landscape impact, it is accepted that the landscape sensitivity of the site is low, that the development will not result in the loss of features which have a high landscape or ecological value, and that the mitigation measures (ie hedgerows, tree and species rich grassland as described elsewhere) will have what is described as a 'medium beneficial' (ie positive) impact on landscape features. There may be a slight perceived loss of green space, but the underlying landscape characteristics and features, such as the grassland, open character and topography, would not be altered, and any effects are reversible following decommissioning of the development. The proposed development would not be in conflict with the aims of the Green Wedge designation; the urban fringe in this location is dominated by major highway corridors and large scale commercial / industrial buildings, and local settlement identity and character will not be adversely affected.

Visual Impact

The Landscape and Visual Impact Assessment also incorporates a 'Visual Appraisal' (VA). This has assessed views from an appropriate range (a 1km study area) of proposed and existing dwellings, and views experienced by users of surrounding Public Rights of Ways and highways. The VA articulates how such views will not be devalued in terms of experiential value and visual aesthetics, and identifies the significance of such impacts, at both construction and operational stages, as is required by best practice guidance.

Representations received that highlighted visual impact as an issue raised concerns with regards to the visual impact at both construction and operational stages, with views of horses, wildlife and

open space being considered to be important, with views of solar panels considered to be 'ugly', and an 'eyesore' and ruining the surrounding countryside. Views onto and across the open land at the proposal site were considered important from both residential and public locations, and concern was expressed that such views were only assessed from ground, not first floor, windows.

The VA identified that there are no views across the site from principal habitable rooms (i.e. those rooms used frequently for general daytime living purposes), and as such, there has been no assessment from second floor dwelling windows that may look out over the site. The ground floor of properties to the east of the proposal site are bounded by a combination of fencing, generally at a height of 1.8m and an established hawthorn hedge, up to 6m in height, within the boundary of the proposal site. It is noted that no properties (existing or proposed) have been designed to have a view across the application site from gardens or principal windows. The development would be visible from first floor windows in views of the foreground, but is not considered to be uncharacteristic or incongruous in wider views of this urban fringe landscape comprising major road corridors and large scale commercial / industrial buildings.

Views from the path to the north of the site, into the site, are available from a section of approximately 50m, which may be extended during winter without leaf cover from intervening vegetation, through the palisade fence which bounds the site. The development will be visible from the path, however such views are not considered to be uncharacteristic or incongruous within this urban fringe setting characterised by major road corridors and large scale commercial / industrial buildings.

In total, 10 discrete viewpoints, have been assessed, with those summarised above representative of the most sensitive receptors and impacts. As such, the proposal is considered to respect the context of the site and surrounding area, and the visual impact of the development will not result in an unacceptable impact to the amenity of existing or future occupiers of nearby properties. The proposal therefore accords with policies LP16 and LP17 of the Local Plan.

Glint and glare

The application is accompanied by a "Solar Photovoltaic Glint and Glare Study". The study informs assessment for a range of issues, including some dealt with separately throughout this report. As such, it is therefore appropriate to consider the impacts, be they on highways, aviation, landscape and visual impact or Rights of Way in a discrete section.

The effects of glint and glare are based mainly on the orientation and materials of the panels themselves, and the trajectory of the sun over the course of a single day, and how this varies throughout the year. Previous studies indicate that in general terms reflections from solar photovoltaic panels are of an intensity similar to, or less than, than those produced from still water, and significantly less than reflections from glass and steel.

The site is designed such that the panels will face to the south, and be positioned at an angle of approximately 25 degrees. South facing panels do not reflect to the south because the sun is never positioned directly overhead. Reflections to the north are rarely possible because of the steep angle of reflection in this direction and as such, have been discounted from the study.

The report sets out the significance of glint and glare impacts for all potential receptors. There are no significant reflections towards users of the surrounding public rights of ways, and therefore no safety hazards for users. The nearest licensed aerodrome is Peterborough / Connington approximately 8km to the south; due to the separation distance and relative location, no significant glint and glare impacts are predicted.

Reflections are considered to be possible towards a section of the A139 exit lane to the west; this is not considered to be significant in practice because a driver on the exit lane would be facing away from any reflections. Without mitigation (discussed below) it is estimated that reflections may be visible towards dwellings to the east for approximately 20 minutes per day for more than 3

months per year; this is considered to be a moderate impact (without mitigation).

As discussed in the Landscape and Visual Impact Assessment, there are no views from private gardens or principal (ground floor) rooms, due to existing fencing and vegetation. Additionally, the proposed landscaping includes reinforcing and additional screening planting alongside the hedgerow on the eastern boundary.

The potential glint and glare impacts have been considered, and the proposal is in accordance with policy LP31 (with regards to impacts on residential amenity, highways and aviation) of the Local Plan.

Noise and disturbance

The application is accompanied by a Noise Impact Assessment which demonstrates that noise associated with the operation of the development would exceed the lowest typical background sound levels both during the day and night times. As such, an acoustic fence has been proposed as mitigation, and is expected to reduce noise levels by 7.5dB, such that the level of noise produced at the site accords with the 'No Observed Effect Level' at the nearest residential receptor as detailed in planning guidance.

It was noted in representations that the Inverter units were the loudest component of the proposal, and the siting of this close to dwellings was questioned. The NIA demonstrates that mitigation is required to ensure that noise levels are acceptable; the proposed acoustic fence will adequately reduce both day, and night time noise levels in the closest residential gardens, and at first floor window below the background sound levels.

The Pollution Control Officer has assessed the report, and confirms that subject to the mitigation (ie the acoustic fence) being installed and maintained for the lifetime of the development, there will be no adverse noise impact. The proposals will not have an unacceptable impact on the amenity of existing (or future) occupiers of any nearby properties, and is therefore in accordance with policy LP17 of the Local Plan.

With regards to concerns raised about disturbance during the construction phase, the developer will be advised to notify all residential properties within 50m of the site boundary, before the commencement of any site works, of the nature and duration of works to be undertaken. The notification should also include contact details required in the event of complaint. Disturbance should also be reduced through controlling start and finish times for working and deliveries. Statutory nuisance procedures can be enforced where building sites operate outside normal and reasonable working hours.

Conservation

The nearest designated heritage asset is the Grade II listed windmill to the southeast of the site. The Conservation Officer acknowledges that the setting of the windmill has been substantially changed by residential development which now surrounds it (and which lies between the proposal site and the windmill). As such there is little opportunity for both the windmill and the proposed solar array to be viewed simultaneously.

The Conservation Officer did note that the site is elevated when viewed from its surroundings to the north and west, and recommended that consideration was given to perimeter planting to contain the visual impact as far as possible. This has been considered in the ecology / landscape section.

The proposal has been considered against Section 16 of the NPPF and Section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990, and will not have an adverse impact on the character and appearance of the listed building. The proposal is therefore considered to accord with policy LP19 of the Local Plan.

Traffic and transport

The proposal site is located off Buntings Lane, which, in front of the site is a combined bridleway, foot and cycle path. As such, vehicular access is provided via the old slip road from the A605 (to the north) onto the Fletton Parkway (A1139) which crosses the path directly in front of the site access point. The development, when constructed, will require occasional routine maintenance and inspection visits in the order of 2-4 light vehicle visits per month. Which is considered to be of a similar magnitude to the current site access requirements. As such, the primary traffic and transport considerations relate to the construction phase of the development.

The Traffic Management Plan accompanying the application sets out how construction traffic will access the site from the redundant A605-A1139 slip road to the north (as described above) crossing the path before entering the site. Upon exiting the site, construction vehicles will cross the path, and re-join the old slip road (which runs alongside the path, with egress provided to the southwest of the site on to the A605 at Stanham Way).

The construction period is expected to last for up to 24 weeks, with a peak between weeks 9-15 of an estimated 1-2 HGV deliveries per day (an estimated 1-3 deliveries per week are expected for the remainder of the construction period). Staff movements during the construction period, in light vehicles, are estimated to number around 10 vehicle per day.

Further to the initial submission, the applicant has provided clarifications to the Local Highways Authority on a number of issues, including the types of signage to be used and technical drawings (swept path analysis) to demonstrate the suitability of access and egress points onto the public highway. In principle, the proposed Traffic Management Plan is acceptable, however, it is acknowledged that the applicant will have to resolve a number of technical issues to secure Highways approval (ie with regards to a Section 278 and TRO).

With regard to issues specific to the planning regime, measures to control the siting of gates, parking and turning requirements, site access and visibility splays and other issues can be adequately covered by condition. The Local Highway Authority have also highlighted that control needs to be exercised over the timing of deliveries due to the high volume of traffic on nearby roads at peak times; this can be controlled by condition.

The Public Rights Of Way Officer has drawn attention to the bridleway that runs across the site to the north (and parallel with the construction exit point), and has requested that it should remain open and unobstructed during construction works. Although horses can be unsettled by large noisy vehicles, careful management of construction traffic, particularly around the area where the site access crosses the bridleway, can ensure that this temporary impact can be accommodated successfully. Upon completion of construction, access to the site will be limited to that required for maintenance purposes. Such visits are likely to be undertaken by light vehicles, as is currently the case for routine inspections and visits to the former landfill site.

The Peterborough Cycle Forum also acknowledge the potential impact of the crossing point for the site access during the construction period, and have highlighted that the proposed signage, providing priority for pedestrians and cyclists, is recommended best practice and welcome the approach to construction traffic crossing the path.

The application is also accompanied by a Glint and Glare Study; in addition to the impact on residential development and aviation considerations (as discussed elsewhere), this has also assessed the impact of the development on surrounding road users. Consideration has been given to the site elevation and surrounding roads, the angles of reflection, the orientation of the site and panels, and the direction in which vehicles are travelling.

The report (with regard to road users), identifies limited reflections impacting on users of the A1139 (off) slip to the A605, which is located to the north west of the site. It is accepted that the

significance of these reflections will be limited both by the presence of vegetation between the panels and the slip road, and the direction of travel of users of the slip road (ie away from any reflection).

With regards to the construction and operation of the proposed solar array, it is considered that appropriate provision can be made for safe, convenient and sustainable access to, from and within the site. There will not be any adverse impact, including the reflections considered in the Glint and Glare Study, on users of the surrounding highway network. As such, the proposal is considered to accord with policy LP13 of the Local Plan.

Water Environment

The proposal site is located entirely within Flood Zone 1 and the application is accompanied by a Flood Risk Assessment and Drainage Strategy. The proposal should be considered a 'less vulnerable' use, and the development is therefore appropriate with regards to the sequential test.

With the site previously being used as a landfill it can be reasonably assumed that there is an impervious cap above the waste no less than 600mm below ground level, allowing for some infiltration of surface water through the top soils. The design of the landfill also incorporated drainage ditches located on both the eastern and western site boundaries that lead to a pond to the south of the site (outwith the application area, but within the applicants control).

The proposal will not have a significant footprint as the panels will drain to the existing ground, and the impact of the ancillary buildings and equipment is insignificant from a drainage perspective. However, to assist with drainage a series of shallow swales and grassland will be installed and maintained between the panels. The Councils Drainage Officer has assessed the application, and, further to clarifications regarding the design and purpose of the proposed swales, has confirmed that the drainage and surface water management proposals are appropriate. The implementation, management and maintenance of the drainage system can be controlled by condition and the proposal is in accordance with policy LP32 of the Local Plan.

Other issues

A number of additional issues were raised through the consultation. Although they are not material planning considerations they are included here for completeness.

The proposal was described as not necessary. Alternative locations, including land surrounding the Amazon depot and by the sides of roads were suggested. It was queried why new buildings were given permission without solar power. There were also concerns raised about a negative impact on house prices.

It was also queried whether provision will be made for a contribution to recycling research costs and / or a site clearance and disposal fund (due to the lack of facilities for recycling old solar panels).

6 Conclusions

The NPPF states that there is a presumption in favour of sustainable development - in terms of decision taking this means approving development proposals that accord with the development plan without delay. The application has been considered in light of the Peterborough Local Plan, the NPPF and accompanying Planning Practice Guidance.

The proposal is not considered to adversely impact upon the function of the Green Wedge within which it is sited, and makes a positive contribution to infrastructure provision through the generation of 2.25MW of renewable energy; the proposal complies with policies LP14, LP26 and LP31 of the Local Plan.

The planning application was accompanied by a comprehensive set of detailed reports including a Design and Access Report, Landscape and Visual Impact, a Glint and Glare Study, Ecological surveys and mitigation strategies, a Noise Impact Assessment, a Traffic Management Plan, a Flood Risk Assessment, a GeoEnvironmental Appraisal, and a Statement of Community Involvement. Detailed topic areas have been assessed and considered

With particular regard to safety and technical issues, ecology, landscape and visual impact, noise, conservation, traffic and transport (including rights of way) and the water environment; design, safety and amenity impacts have been considered and the proposal is in accordance with policies LP16, LP17 and LP33 of the Local Plan; the proposal can be accommodated onto the existing open space without significant detrimental impact and will ensure the safety of protected species and enhance the biodiversity value of the area in accordance with policies LP23 and LP28; the character of the landscape and the visual impact of the proposals have been considered and the proposal accords with policies LP27 and LP17; noise impacts on nearby residential dwellings has been considered and the proposal is in compliance with policy LP17; consideration has been given to the transport (including rights of way) implications of the development, and the proposal is in accordance with policy LP13; and consideration has been given to impacts on the water environment and the proposal is in accordance with policy LP32.

Comments of consultees and representations have been taken into account and suitable conditions attached to address any issues raised and in all other respects the proposals is acceptable. As such, there is no reason not to approve the application in line with Section 38(6) of the Planning and Compulsory Purchase Act.

7 Recommendation

The Executive Director of Place and Economy recommends that Planning Permission is **GRANTED** subject to the following conditions:

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

Reason: In accordance with Section 91 of the Town and Country Planning Act 1990 (as amended).

- C 2 The development of a Photovoltaic Solar Array shall be carried out in complete accordance with the following approved plans;

Location Plan, Ref. CCC-STAN-PROS-DR-T-1001 Rev B

Temporary Compound Layout, Drawing No. CCC-STAN-DETR-DR-S-2103 Rev 2, dated 13/07/20

General PV Layout, Drawing No. CCC-STAN-DETR-DR-S-2101 Rev 6, dated 13/07/20

PV Mounting Elevations, Drawing No. CCC-STAN-DETR-DR-S-4101, dated 01/07/20

BESS Compound Elevations, Drawing No. CCC-STAN-BYES-DR-E-5202, dated 20/07/20

Customer Cabin Details, Drawing No. CCC-STAN-DETR-DR-S-3102 Rev 1, dated 07/07/20

Transformer Station and Switchgear, Drawing No. CCC-STAN-DETR-DR-S-3103 Rev 2, dated 13/07/20

Weather Station Detail, Drawing No. CCC-STAN-DETR-DR-S-3107 Rev 1, dated 07/07/20

Communication Unit Details, Drawing No. CCC-STAN-PROS-DR-Y-311 Rev A, dated 04/12/2015

DNO Substation, Drawing No's. CCC-NASF-PROS-DR-S-3105 Rev A and CCC-STAN-PROS-DR-Y-1021 Rev A
Battery Inverter Substation, Drawing No. CCC-STAN-DETR-DR-S-3108 Rev 01, dated 13/07/20
CCTV Details, Drawing NO. CCC-STAN-DETR-DR-Y-3105 Rev 1, dated 13/07/20
Fence and Gate Details, Drawing No. CCC-STAN-DETR-DR-S-3101, dated 01/07/20
Detailed Landscape Proposals, Drawing No. c-1731-01 Rev G, dated Jan 2020

Reason: For the avoidance of doubt and in the interests of proper planning.

- C 3 The "solid timber screening fence to height of 3.2m", as depicted on the "Detailed Landscape Proposals" Drawing No. c-1731-01 Rev G, dated Jan2020 shall be constructed prior to the first use of the development for the production of electricity. Thereafter it shall be maintained in a condition appropriate to its purpose as an acoustic (mitigation) fence for the duration of the development.

Reason: To safeguard the noise environment of the surrounding locality, in accordance with Policy LP17 of the Peterborough Local Plan (2019) and paragraph 180 of the National Planning Policy Framework (2019).

- C 4 No development shall take place until either:
a) A licence issued by Natural England pursuant to Regulation 55 of The Conservation of Habitats and Species Regulations 2017 authorising the specified activity/development to go ahead; or
b) A statement in writing from a suitably qualified ecologist to the effect that they do not consider that the proposed development will require a licence has been submitted to and approved in writing by the Local Planning Authority

Reason: To conserve and enhance the network of habitats, species and sites of ecological importance in accordance with Peterborough Local Plan policy LP28. This is a pre-commencement condition because any on-site works could adversely impact protected species unless adequate controls are in place.

- C 5 No development shall take place until and unless a Landscape and Ecological Management Plan, based on the recommendations of the Biodiversity Strategy, has been submitted to and approved in writing by the Local Authority.

Reason: To conserve and enhance the network of habitats, species and sites of ecological importance in accordance with Peterborough Local Plan policy LP28.

- C 6 The development shall take place in complete accordance with the proposed landscaping, as set out on Drawing No. c-1371-01 Rev G Dated Jan 2020. All initial landscaping, seeding and planting must be completed no less than 12 months after completion of the construction of the development. Should any trees, shrubs or other planting die, become diseased or be removed within 5 years from its planting, they shall be replaced in the first available planting season with a plant / plants of a similar size and species to that removed.

Reason: To protect the amenity of the surrounding area and to provide biodiversity enhancements in accordance with Peterborough Local Plan policies LP17 and LP28.

- C 7 The drainage and surface water management of the development shall be carried out in complete accordance with the letter from Nick Drewett dated 29/10/2020, and the "SuDS

Management and Maintenance" schedule at Appendix 4 of the "Flood Risk Assessment and Surface Water Drainage Strategy" document, ref. 5005_FRA_SWDS, dated 27/01/2020

Reason: In order to protect the water environment in accordance with Peterborough Local Plan policy LP32.

- C 8 No works can take place until and unless a pre-condition public highway survey has been undertaken. The extent of the survey should be agreed with the Highway Control Team and undertaken as a joint inspection before site traffic uses the roads. A further survey to establish the extent of remedial works, to be agreed with the Highways Control Team, should be undertaken upon completion of construction works. Any requisite remedial works shall thereafter be undertaken by the applicant / developer in accordance with the requirements of the Highways Control Team.

The highways surveys, and any requisite remedial works, must be repeated when the site is de-commissioned.

Reason: In the interests of highway safety, in accordance with Policy LP13 of the Adopted Peterborough Local Plan.

- C 9 A scheme of off-site highway works to provide a safe and suitable access and egress to and from the Parkway System for all vehicles visiting the site shall be submitted to and approved by the Local Planning Authority, and implemented in full, prior to commencement of development.

Reason: In the interest of highway safety in accordance with Policy LP13 of the Adopted Peterborough Local Plan.

- C10 Weekday HGV deliveries to the site may only take place except between the hours of 0900 - 1500 during term time, and 0900 - 1645 during school holidays.

Reason: In the interest of highway safety in accordance with Policy LP13 of the Peterborough Local Plan.

- C11 The car parking, lorry parking/loading/unloading and associated turning areas hereby approved shall be laid out and ready for use prior to the commissioning of the photovoltaic array in accordance with the "General PV Layout", Drawing No. CCC-STAN-DETR-DR-S-2101 Rev 6, dated 13/07/20. The parking and turning areas shall thereafter be retained and shall not be used for any purpose other than parking and turning of vehicles.

Reason: In order to ensure that sufficient parking and turning space is available in accordance with Policy LP13 of the Adopted Peterborough Local Plan.

- C12 Any permanent gates or other means of enclosure provided across the vehicular access shall be set back a minimum of 6 metres from the back edge of the public highway where it adjoins the site and open inwards only.

Reason: In the interests of highway safety in accordance with Policy LP13 of the adopted Planning Policies DPD.

- C13 The access hereby approved shall be provided in accordance with the details shown on the "General PV Layout", Drawing No. CCC-STAN-DETR-DR-S-2101 Rev 6, dated 13/07/20, prior to the solar farm being brought into use. It shall thereafter be retained in accordance with the approved plans.

Reason: In the interests of highway safety in accordance with Policy LP13 of the Adopted Peterborough Local Plan.

- C14 Notwithstanding the details shown on the approved plans, prior to the solar farm site access being brought into use, pedestrian visibility splays shall be provided on both sides of the access(es) shown on the "General PV Layout", Drawing No. CCC-STAN-DETR-DR-S-2101 Rev 6, dated 13/07/20. The splays shall measure 2.0 metre by 2.0 metre measured along each side of the access and along the back edge of the highway. The splays shall thereafter be maintained and retained free from any obstructions over 600mm in height above ground level.

Reason: In the interest of highway safety in accordance with Policy LP13 of the Adopted Peterborough Local Plan.

- C15 Notwithstanding the details shown on the approved plans, prior to the solar farm site access being brought into use, cycle visibility splays shall be provided on both sides of the access(es) shown on the "General PV Layout", Drawing No. CCC-STAN-DETR-DR-S-2101 Rev 6, dated 13/07/20. The splays shall measure 2.5 metres by 31 metres measured along each side of the access and along the edges of the footpath/cycleway. The splays shall thereafter be maintained and retained free from any obstructions over 600mm in height above ground level.

Reason: In the interest of highway safety in accordance with Policy LP13 of the Adopted Peterborough Local Plan.

- C16 Any lighting of private roads, maintenance tracks, driveways or parking areas shall be arranged so that no danger or inconvenience is caused to users of the adjoining existing or proposed public highway.

Reason: To avoid glare/dazzle which could lead to danger to highway users, in accordance with Policy LP13 of the Adopted Peterborough Local Plan.

- C17 Development shall not commence until fully operational wheel cleaning equipment has been installed on all exits from the site and the area between the wheel wash and the public highway is hard surfaced in either concrete or tarmac and maintained free from mud, slurry or any other form of contamination whilst in use. All vehicles leaving the site shall pass through the wheel cleaning equipment which shall be sited to ensure that vehicles are able to leave the site and enter the public highway in a clean condition and free of debris which could fall onto the public highway. The wheel cleaning equipment shall be retained on site in full working order for the duration of the construction of the development.

Reason: In the interest of highway safety in accordance with Policy LP13 of the Adopted Peterborough Local Plan

- C18 Temporary facilities shall be provided clear of the public highway for the parking, turning, loading and unloading of all vehicles visiting the site during the construction period in

accordance with the "Temporary Compound Layout", Drawing NO. CCC-STAN-DETR-DR-S-2103 Rev 2, dated 13/07/20.

Reason: In the interests of highway safety in accordance with Policy LP13 of the Adopted Peterborough Local Plan.

- C19 Following the end of the useful life of the PV array, all physical elements of the development, including all photovoltaic panels, ancillary equipment, underground wiring etc, shall be removed, and the land restored to a condition providing the same, or an improved, level of biodiversity provision as is provided by the development, within 12 months of the facility becoming redundant.

Reason: To provide and maintain biodiversity netgain over and above that provided prior to the commencement of the development in accordance with Peterborough Local Plan policy LP28.

Copies to: Cllr Ray Bisby. Cllr Chris Harper. Cllr Brian Rush

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