Location	Land Adjacent To The National Grid Sub-station Partingdale Lane London NW7 1NS	
Reference:	20/4241/FUL	Received: 11th September 2020
		Accepted: 16th September 2020
Ward:	Mill Hill	Expiry 16th December 2020
Case Officer:	Josh Mclean	
Applicant:	Mr Guy Manners-Spencer	
Proposal:	Installation of a battery storage facility including inverter and transformer stations, battery storage containers, other associated infrastructure works, security fencing and lighting [AMENDED PLANS]	

OFFICER'S RECOMMENDATION

Approve subject to conditions

AND the Committee grants delegated authority to the Service Director – Planning and Building Control to make any minor alterations, additions or deletions to the recommended conditions/obligations or reasons for refusal as set out in this report and addendum provided this authority shall be exercised after consultation with the Chairman (or in their absence the Vice- Chairman) of the Committee (who may request that such alterations, additions or deletions be first approved by the Committee)

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

2701-01-02 (Site Location Plan)
2701-01-03 Rev A (Statutory Plan)
2701-01-04b (General Arrangement)
2701-01-05 (Welfare / Control / Storage Container)
2701-01-06 (Battery Storage Container)
2701-01-07 (External Switchgear)
2701-01-08 (Switchroom Control Room)
2701-01-09 (Inverter & Transformer Station)
2701-01-10 (Auxiliary Transformer, Fencing, CCTV Cameras & Retaining Wall)
2701-01-13 (Landscape Design)

Arboricultural Assessment, FPCR Environment and Design Ltd (dated 04.09.2020)

Biodiversity Metric Calculation

Ecological Assessment V1 , Avian Ecology (dated 03.09.2020) Ecology Note: Response to LPA Comments, Avian Ecology Limited (dated 23.08.2021) Environmental Noise Impact Assessment, TNEI (dated 04.09.2020) Planning Statement, axis (dated September 2020) Response to Comments on Noise from Environmental Protection Officer Site Search, Harbour Energy (dated September 2020) Surface Water Drainage Assessment, KRS Environmental (dated July 2020)

Reason: For the avoidance of doubt and in the interests of proper planning and so as to ensure that the development is carried out fully in accordance with the plans as assessed in accordance with Policies CS NPPF and CS1 of the Local Plan Core Strategy DPD (adopted September 2012) and Policy DM01 of the Local Plan Development Management Policies DPD (adopted September 2012).

2 This development must be begun within three years from the date of this permission.

Reason: To comply with Section 51 of the Planning and Compulsory Purchase Act 2004.

3 a) Prior to installation of the structures, including battery containers, storage and utility containers, generators and transformers and fencing, details of the external finishing colour shall be agreed in writing by the Local Planning Authority.

b) The structures and fencing shall be retained and maintained in the agreed finish for the lifetime of the development.

Reason: In the interests of the visual amenity of the Green Belt.

4 a) Prior to Ground Works and Site Preparation Works, no development shall commence within a Development Phase until a Construction Environmental Management Plan, setting out the construction and environmental management measures associated with that Development Phase, has been submitted to and approved in writing by the Local Planning Authority. The details shall be in accordance with the ES and shall include:

Construction site and works

- i. Site information (including a site plan and management structure)
- ii. Description of works, equipment and storage
- iii. Programme of works
- iv. Temporary hoarding and fencing
- v. Temporary works
- vi. Interim drainage strategy

vii. Intrusive site investigation works and monitoring (the scope to be agreed in writing with the Local Planning Authority)

Construction management and procedures

viii. Code of Considerate Practice

ix. Consultation and neighbourhood liaison

x. Staff training and briefing procedures

xi. Schedule of environmental legislation and good practice

xii. Register of permissions and consents required

xiii. Environmental Audit Programme

xiv. Environmental Risk Register

xv. Piling Works Risk Assessment

xvi. Health and safety measures

xvii. Complaints procedures

xviii. Monitoring and reporting procedures

Demolition and waste management

xix. Demolition Audit

xx. Site clearance and waste management plan

xxi. Asbestos survey and disposal strategy

Construction traffic

xxii. Construction traffic routes

xxiii. Construction traffic management (including access to the site; the parking of vehicles for site operatives and visitors; hours of construction, including deliveries, loading and unloading of plant and materials; the storage of plant and materials used in the construction of the development; the erection of any means of temporary enclosure or security hoarding and measures to prevent mud and debris being carried on to the public highway and ways to minimise pollution)

Environmental Management

xxiv. Ecology surveys and management plan in relation to any existing ecological features that may be affected by works in that Development Phase

xxv. Measures to minimise visual impact during construction

xxvi. Measures to minimise noise and vibration levels during construction

xxvii. Measures to minimise dust levels during construction

xxviii. Measures to control pollution during construction (including a Pollution Response Plan)

xxix. Construction lighting strategy, including measures to minimise light spill

xxx. Measures to reduce water usage during construction

xxxi. Measures to reduce energy usage during construction

xxxii. Any other precautionary and mitigatory measures in relation to demolition and construction as identified in the ES and the EIA Mitigation Register

b) The development shall thereafter be implemented in accordance with the measures detailed within the statement.

Reason: To ensure that the proposed development does not prejudice the amenities of occupiers of adjoining residential properties, in the interests of highway and pedestrian safety and in the interests of protecting the environment and trees in accordance with policies CS7, CS9, CS13, CS14, DM01, DM04, DM16 and DM17 of the Barnet Local Plan.

agreed route to be utilised by all construction traffic from the B552, shall be submitted to and approved in writing by Local Planning Authority.

b) An "after" survey shall be submitted to and approved by the Local Planning Authority three months before the completion of the development. Any recommended works necessary to reinstate the condition of the agreed route to that identified within the "before" survey shall be implemented in accordance with a timeframe as approved following completion of the development.

Reason: To ensure that the road is maintained in a suitable condition in order to minimise danger, obstruction and inconvenience to users of the highway.

6 a) No development other than demolition works shall commence on site in connection with the development hereby approved until a report has been carried out by a competent acoustic consultant that assesses the likely noise impacts from the development of the ventilation/extraction plant, and mitigation measures for the development to reduce these noise impacts to acceptable levels, and has been submitted to and approved in writing by the Local Planning Authority.

The report shall include all calculations and baseline data, and be set out so that the Local Planning Authority can fully audit the report and critically analyse the content and recommendations.

b) The measures approved under this condition shall be implemented in their entirety prior to the commencement of the use/first occupation of the development and retained as such thereafter.

Reason: To ensure that the proposed development does not prejudice the amenities of occupiers of neighbouring properties in accordance with Policy DM04 of the Development Management Policies DPD (adopted September 2012), the Sustainable Design and Construction SPD (adopted April 2016) and Policies D13 and D14 of the London Plan 2021.

7 a) Before the development hereby permitted is first brought into use, a postcompletion acoustic report shall be submitted to and approved in writing by the Local Planning Authority. This report should confirm that all the noise mitigation measures to ensure compliance with the London Borough of Barnet noise standard for external plant have been implemented in their entirety.

b) The development shall be implemented in full accordance with the details as approved under this condition prior to the first occupation and retained as such thereafter.

Reason: To ensure that the proposed development does not prejudice the amenities of occupiers of neighbouring properties in accordance with Policies DM04 of the Development Management Policies DPD (adopted September 2012).

including 560kW used during the course of the demolition, site preparation and construction phases shall comply with the emission standards set out in chapter 7 of the GLA's supplementary planning guidance "Control of Dust and Emissions During Construction and Demolition" dated July 2014 (SPG), or subsequent guidance. Unless it complies with the standards set out in the SPG, no NRMM shall be on site, at any time, whether in use or not, without the prior written consent of the local planning authority.

The developer shall keep an up to date list of all NRMM used during the demolition, site preparation and construction phases of the development on the online register at https://nrmm.london/

Reasons: In the interest of good air quality in accordance with London Plan policy SI 1.

9 The free-field Rating Level (as defined in BS 4142:2014+A1:2019) from all of the proposed plant hereby approved shall be at least 5dB(A) below the background level, as measured from any point 3.5 metres outside the window of any room of a neighbouring residential property.

Reason: To ensure that the proposed development does not prejudice the amenities of occupiers of neighbouring properties in accordance with Policies DM04 of the Development Management Policies DPD (adopted September 2012) and policy D14 of the London Plan 2021.

10 a) The development shall be implemented in accordance with approved drawing 2701-01-13 (Landscape Design).

b) All work comprised in the approved scheme of landscaping shall be carried out before the end of the first planting and seeding season following occupation of any part of the buildings or completion of the development, whichever is sooner, or commencement of the use.

c) Any existing tree shown to be retained or trees or shrubs to be planted as part of the approved landscaping scheme which are removed, die, become severely damaged or diseased within five years of the completion of development shall be replaced with trees or shrubs of appropriate size and species in the next planting season.

Reason: To ensure a satisfactory appearance to the development in accordance with Policies CS5 and CS7 of the Local Plan Core Strategy DPD (adopted September 2012), Policy DM01 of the Development Management Policies DPD (adopted September 2012), the Sustainable Design and Construction SPD (adopted October 2016).

11 The development shall proceed and be carried out in accordance with the findings and recommendations of the approved Ecological Assessment, Avian Ecology (dated May 2019), Ecology Note: Response to LPA Comments, Avain Ecology (dated 23/08/21) and the associated ecological surveys submitted in support of the application and the details of compensation measures and ecological enhancements contained within shall be incorporated into the finished scheme.

Reason: To ensure that nature conservation interests are not prejudiced by the development in accordance with Policy DM16 of the Development Management Policies DPD (adopted September 2012) and the Sustainable Design and Construction SPD (adopted October 2016).

12 a) No development shall take place until details of the location, extent and depth of all excavations for services (including but not limited to electricity, gas, water, drainage and telecommunications) in relation to trees on and adjacent to the site have been submitted to and approved in writing by the Local Planning Authority.

b) The development shall thereafter be implemented in accordance with details approved under this condition.

Reason: To safeguard the health of existing tree(s) which represent an important amenity feature in accordance with CS5 and CS7 of the Local Plan Core Strategy (adopted September 2012), Policy DM01 of the Development Management Policies DPD (adopted September 2012) and Policy 7.21 of the London Plan 2016).

a) No site works or development (including any temporary enabling works, site clearance and demolition) shall take place until a dimensioned tree protection plan in accordance with Section 5.5 and a method statement detailing precautions to minimise damage to trees in accordance with Section 6.1 of British Standard BS5837: 2012 (Trees in relation to design, demolition and construction - Recommendations) have been submitted to and approved in writing by the Local Planning Authority.

b) No site works (including any temporary enabling works, site clearance and demolition) or development shall take place until the temporary tree protection shown on the tree protection plan approved under this condition has been erected around existing trees on site. This protection shall remain in position until after the development works are completed and no material or soil shall be stored within these fenced areas at any time. The development shall be implemented in accordance with the protection plan and method statement as approved under this condition.

Reason: To safeguard the health of existing trees which represent an important amenity feature in accordance with Policy DM01 of the Development Management Policies DPD (adopted September 2012), Policies CS5 and CS7 of the Local Plan Core Strategy DPD (adopted September 2012) and Policy 7.21 of the London Plan 2016.

14 a) Prior to the installation of any lighting within the site, a detailed lighting scheme including lighting levels at the boundary of the site shall be submitted to and approved in writing by the Local Planning Authority.

b) Any lighting shall be carried out in accordance with the approved details.

Reason: The plans do not currently show any lighting to serve the development and without details it is unclear whether the visual qualities of the area will be affected as a result of their levels, number and position.

15 Prior to its installation details of all CCTV infrastructure including height, colour and location of any mounted equipment shall be submitted to and agreed in writing by the Local Planning Authority.

Reason: In the interest of the visual amenity of the Green Belt.

16 a) The Battery Storage Facility shall be permitted for an operational life of 40 years and thereafter, a detailed decommissioning strategy shall be submitted to and approved in writing by the Local Planning Authority. This strategy shall identify the trigger point(s) for decommissioning the site at which time the site shall be restored to its previous state as agricultural land with all infrastructure (including structures, hardcore, concrete and any underground apparatus) to be removed in accordance with details to be agreed within the strategy

b) Decommissioning and restoration of the site shall thereafter be carried out and completed in full accordance with the details approved under this condition within 12 months of the expiry of the 40 year operational life following the date of this permission

Interests: In the visual amenity of the Green Belt.

Informative(s):

- 1 In accordance with paragraphs 38-57 of the NPPF, the Local Planning Authority (LPA) takes a positive and proactive approach to development proposals, focused on solutions. The LPA has produced planning policies and written guidance to assist applicants when submitting applications. These are all available on the Council's website. A pre-application advice service is also offered and the Applicant engaged with this prior to the submissions of this application. The LPA has negotiated with the applicant/agent where necessary during the application process to ensure that the proposed development is in accordance with the Development Plan.
- 2 The submitted Construction Method Statement shall include as a minimum details of:
 - Site hoarding
 - Wheel washing
 - Dust suppression methods and kit to be used
 - Site plan identifying location of site entrance, exit, wheel washing, hoarding, dust suppression, location of water supplies and location of nearest neighbouring receptors. Explain reasoning if not applicable.

- Confirmation whether a mobile crusher will be used on site and if so, a copy of the permit and indented dates of operation.

- Confirmation of the following: log book on site for complaints, work in accordance with British Standards BS 5228-1:2009+A1:2014 and best practicable means are

employed; clear contact details on hoarding. Standard construction site hours are 8am-6pm Monday - Friday, 8am-1pm Saturday and not at all on Sundays and Bank Holidays. Bonfires are not permitted on site.

- confirmation that all Non Road Mobile Machinery (NRMM) comply with the Non Road Mobile Machinery (Emission of Gaseous and Particulate Pollutants) Regulations 1999.

The statement shall have regard to the most relevant and up to date guidance including: Guidance on the assessment of dust from demolition and construction, Institute of Air Quality Management, January 2014.

3 The applicant is advised to engage a qualified acoustic consultant to advise on the scheme, including the specifications of any materials, construction, fittings and equipment necessary to achieve satisfactory internal noise levels in this location.

In addition to the noise control measures and details, the scheme needs to clearly set out the target noise levels for the habitable rooms, including for bedrooms at night, and the levels that the sound insulation scheme would achieve.

The Council's Sustainable Design and Construction Supplementary Planning Document requires that dwellings are designed and built to insulate against external noise so that the internal noise level in rooms does not exceed 30dB(A) expressed as an Leq between the hours of 11.00pm and 7.00am, nor 35dB(A) expressed as an Leq between the hours of 7.00am and 11.00pm (Guidelines for Community Noise, WHO). This needs to be considered in the context of room ventilation requirements.

The details of acoustic consultants can be obtained from the following contacts: a) Institute of Acoustics and b) Association of Noise Consultants.

The assessment and report on the noise impacts of a development should use methods of measurement, calculation, prediction and assessment of noise levels and impacts that comply with the following standards, where appropriate:

1) BS 7445(2003) Pt 1, BS7445 (1991) Pts 2 & 3 - Description and measurement of environmental noise;

2) BS 4142:2014 - Method for rating industrial noise affecting mixed residential and industrial areas;

3) BS 8223: 2014 - Guidance on sound insulation and noise reduction for buildings: code of practice;

4) Department of Transport: Calculation of road traffic noise (1988);

5) Department of Transport: Calculation of railway noise (1995);

6) National Planning Policy Framework (2012)/ National Planning Policy Guidance (2014).

Please note that in addition to the above, consultants should refer to the most relevant and up to date guidance and codes of practice if not already listed in the above list.

4 The Air Quality reports required under the Environment Act 1995 have highlighted that this area currently experiences or is likely to experience exceedances of Government set health-based air quality standards. A list of possible options for mitigating poor air quality is as follows: 1) Use of passive or active air conditioning; 2) Use of acoustic ventilators; 3) Altering lay out so habitable rooms are sited away from source of poor air quality; 4) Non residential usage of lower floors; 5) Altering footprint by siting further away from source of poor air quality.

For developments that require an air quality report; the report should have regard to the air quality predictions and monitoring results from the most recent Review and Assessment report available from the LPA web site and Air Quality England. The report should be written in accordance with the following guidance : 1) Environmental Protection UK and IAQM Guidance: Land-Use Planning and Development Control: Planning for Air Quality, Jan 2017); 2) Environment Act 1995 Air Quality Regulations; 3) Local Air Quality Management Technical Guidance LAQM.TG(16); 4) London Councils Air Quality and Planning Guidance (2007); 5) Mayor of London's Supplementary Planning Guidance for Sustainable Design and Construction (2014): 6) Section 6.2 of the Technical Guidance Note D1 (Dispersion) 'Guidelines on Discharge Stack Heights for Polluting Emissions' 7) The control of dust and emissions from construction and demolition, Best Practice Guidance London Councils, 2006; The Control of Dust and Emissions during construction and demolition 8) supplementary planning guidance July 2014; 9) Air Quality Neutral Planning Support Update April 2014 and 10) Guidance on the assessment of dust from demolition and construction, Institute of Air Quality Management, January 2014

Please note that in addition to the above, consultants should refer to the most relevant and up to date guidance and codes of practice if not already listed in the above list.

OFFICER'S ASSESSMENT

1. Site Description

The proposal relates to land adjacent the National Grid substation which is located on the north side of Partingdale Lane in Mill Hill. Within the wider vicinity the site is located on the southern slopes of the Folly Brook valley which lies between Mill Hill and Totteridge. The site is accessed from Partingdale Lane to the south and encircled by Burtonhole Lane - which begins as a vehicular carriageway servicing houses to the west and the Camden Sports Ground to the north, before becoming a footpath/track along the eastern boundary.

The existing operational infrastructure at the National Grid's substation - currently comprises just under 3ha of aggregate/hard-surfacing facilitating various installations engaged in supporting the high-voltage transformer and the associated distribution network. The surrounding land is comprised of a series of small-medium sized green open spaces enclosed by mature tree and shrub boundaries, with pockets of woodland to the north-east, west and south of the site. The nearest residential receptors are along Partingdale Lane approximately 200m to the south of the site and Hillview Road (c120m) and Eleanor Crescent (c240m) to the west.

The site is square in shape and occupies an area of circa 0.49 hectares. It lies to the west of the existing National Grid infrastructure.

The site falls within the Metropolitan Green Belt and within a designated Site of Metropolitan Importance for Nature Conservation (SINC) known as the Mill Hill Substation Pastures (though the existing substation aggregate or hard standing is not designated). Burtonhole Brook (a tributary of Folly Brook) flows through the site adding to its diversity of habitat. Grade II Site of Borough Importance for Nature Conservation known as Burtonhole Lane and Pasture abuts the site to the east, stretching north-east. A Grade I Site of Borough Importance for Nature Conservation known as Folly Brook and Darlands Lake Nature Reserve is situated further to the north/north-east at the foot of the valley, around 700m away.

The eastern boundary of the site is peppered with trees subject to Preservation Orders, with Area Orders in place c3-400m to the west and south and just over 200m to the north. The site lies entirely within Flood Zone 1 (less than 1 in 1,000 annual probability of river or sea flooding). However, with regard to the LB Barnet: Surface Water Management Plan, the site forms part of an identified critical drainage area for surface water (Group 2_015).

2. Site History

An application for a gas peak power facility had been received on a site to the east of the National Grid substation but was formally withdrawn and no longer under consideration.

Reference: 19/6641/FUL

Address: Land Adjacent to National Grid Sub-station, Partingdale Lane, NW7 1NS Decision: Withdrawn

Decision Date: 26/04/2021

Description: Installation of a gas peak power facility generating up to 49.9MW of electricity including Electrical Transformer Units; Electrical Sub-Station; Gas Kiosk; Oil Storage Tanks; Compressed Air Building; Associated works and provision of parking bays and security fencing and lighting

3. Proposal

The proposed development is designed to store power the grid at times of excess supply and feed this power back into the grid at times of high demand / reduced generation capacity. Its aim is to balance frequency at times of system stress and would provide a flexible backup power source to the grid and would contribute towards ensuring there is a reliable and constant supply of electricity across the network. The proposed development will not generate any additional electricity. The proposal comprises of the following components:

o 20no. containers (c. 13.7m long x 3.1m wide x 2.9m high) housing Battery Energy Storage Systems. At each end would be housed with ventilation and cooling units. Each container would be finished in dark grey or green;

- o 10no. inverter / transformer stations;
- o 1 no. welfare / control / storage container;
- o 1no. switch-room / control room
- o 1no. external switchgear,
- o 1no. auxiliary transformer,
- o 2.4m high weldmesh security fencing;
- o Retaining wall around the perimeter of the compound;
- o 6no. CCTV monitoring points

A new access would be created, located off the existing National Grid substation road to the east, which connects with Partingdale Lane to the south.

In terms of security and lighting, the site would generally be unmanned and therefore a 2.4m high security fence is proposed to enclose the compound. CCTV, motion sensors and security would be installed to ensure that no-one enters the site when the site is not occupied. Lighting is proposed to be kept to a minimum, with low level directional LED lighting with shrouds installed to prevent upwards light spillage. The proposed lighting would be fitted to the CCTV columns, containers and control rooms.

In terms of landscaping / enhancements, new hedgerow, scrub and grassland planting is proposed around the areas surrounding the development site.

The grid connection for the proposed development would be installed below ground and would be undertaken by a statutory undertaken under permitted development.

The development would be 'temporary' in nature and is proposed to operate for a period of 40 years as requested by the agent. Following this period, the use of the site would cease and it is proposed that all energy generation equipment would be removed and the site fully restored to its present use.

The proposal has been amended during the course of the application process to include the following elements:

o Creation and planting of new biodiversity / landscaping measures around the site, following discussions with the Council's Ecologists and Tree Officer.

4. Public Consultation

Consultation letters were sent to 606 neighbouring properties. Following the submission of new information and plans, a period of re-consultation was undertaken.

917 responses have been received overall, comprising 915 letters of objection and 2 letters of support.

The objections received can be summarised as follows:

- Loss of greenbelt land and no very special circumstances;
- Contrary to NPPF, London Plan and Barnet policies
- Inappropriate location;
- Out of keeping;
- Space within the existing facility;
- Visual impact of containers;
- Cumulative impact with large scale housing developments in surrounding area;
- Impact on Mill Hill Conservation Area;
- Concerns around safety of battery energy storage systems;
- Proximity to primary school;
- Proximity to residential properties- noise / privacy / light spillage;
- Impact on local environment / wildlife / SINC / biodiversity / Darlands Nature Reserve;
- Removal of trees;
- Lack of meaningful landscaping;
- Inability of local roads to cope during the development phase;
- Noise impacts;
- Flood and drainage risks;

- Increased traffic movements; and
- disruption during construction phase.

The letters of support received can be summarised as follows:

- Essential part of the future of a power grid based on non-dispatchable renewables;
- Grid scale storage using batteries is largely passive, non-intrusive and low hazard;
- Locating on or adjacent to existing substations is sensible
- Essential is we are to go over to 100% renewable energy
- Stabilise the grid system in the event of a power station suddenly going off-line

Elected Representatives:

Matthew Offord MP

I write to object to the above planning application.

Like the application for the installation of a gas peak power facility, this proposal falls within designated Metropolitan Green Belt and has the potential to cause severe harm to the Green Belt and its openness. As such, it constitutes inappropriate development as set out in the National Planning Policy Framework (NPPF). With reference to the NPPF, paragraph 144 must apply:

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

I can find no evidence that the applicant has demonstrated 'very special circumstances' that could not be met at an alternative location nor am I convinced that the applicant has sufficiently demonstrated that this is the best location available.

Furthermore, the proposal does not adequately meet any of the criteria for exceptions as set out in subsequent paragraphs 145 and 146 of the NPPF.

The application is also contrary to the London Borough of Barnet's own Development Management policies on Green Belt/Metropolitan Open Land which state in DM15: "(i) Development proposals in Green Belt are required to comply with the NPPF (paras 79 to 92). In line with the London Plan the same level of protection given to Green Belt land will be given to Metropolitan Open Land (MOL)."

And "(ii) Except in very special circumstances, the council will refuse any development in the Green Belt or MOL which is not compatible with their purposes and objectives and does not maintain their openness."

I am dismayed that an Environmental Impact Assessment (EIA) is not required given the potential impact on biodiversity; land, soil, water, air and climate; the landscape; and the interaction between these factors. The applicant has undertaken a habitat survey of the site but this, by its nature, this does not address the very real aforementioned concerns.

This proposal will increase the built footprint on this part of the Green Belt which will be detrimental to the open nature of the Green Belt and the peace and tranquility of the area. The construction will be unsightly and will have a visually detrimental impact on residential properties to the south and west of the site as well as on those who enjoy this open space

and adjacent Ecological Enhancement Areas. There will be light and noise pollution for those trying to enjoy the surrounding area and there will be acknowledged adverse noise impact on Highview Road.

I believe this application is inappropriate for this site, being harmful to the Green Belt and its openness; failing to demonstrate any 'very special circumstances' which could not be met elsewhere; failing to meet any of the criteria for exceptions; having an adverse impact on neighbouring residential properties; and being contrary to Barnet's policy DM15.

I should be grateful for my comments to be taken into consideration and trust this application will be refused.

Theresa Villiers MP

Your records will show that I objected to the previous application (19/6641/FUL) which was subsequently withdrawn. I believe that my comments to that application are relevant to this one, particularly my concern about this facility being built in the green belt on a Site of Metropolitan Importance for Nature Conservation.

Although the site is not in my constituency, it is a vital part of the surviving greenery between Totteridge and Mill Hill. It is clearly visible from Partingdale Lane, and if this application is approved, my constituents and other users of the green belt will lose a significant visual amenity.

As one correspondent has pointed out, the ecological survey fails to identify the importance of this habitat which attracts over wintering birds such as Woodcock (Red List), Snipe (Amber list), Jack Snipe, Common Gull (Amber list) and flocks of Fieldfare & Redwing (both red list). There will be significant biodiversity net loss contrary to NPPF & Barnet Policy DM16.

While I note that "no alternative sites are available and that the contribution the development make to the objective of securing a reliable source of low carbon electricity supply constitutes special circumstances" - it would appear that no evidence is supplied to support these assertions.

Given the importance. I believe, of retaining and protecting green belt land as so many open spaces in our area are being earmarked for development, I would be grateful if you could pass my comments, and those of Mr Lewin, to the Planning Committee. I oppose the plans and believe they should be refused.

Andrew Dismore AM

I am writing to object to the above application in my capacity as London Assembly Member for Barnet and Camden.

This development will encroach on previously undeveloped Green Belt land, to the west of the transformer site, and is not being built within the footprint of the transformer site. It is to have the same capacity of 50 MW (1.1.1, 6.2.13) as the proposed gas peaking plant, hinting that the two developments are linked, but there is nowhere in this application which states that it is a replacement.

There are repeated references to the use of storage in conjunction with renewable energy, yet there are no plans for any renewable energy sources on or near the site. Appendix G in

20/4241/FUL gives examples of gas peaking and battery applications in Green Belts. In Rochford Essex, an application for a 49.99MW gas-fired generating facility was accompanied by a separate application for a battery storage facility.

This proposal proves that major applications are made incrementally. In this way individual applications can comply with thresholds and the full impact is not apparent in the first wave of opposition. As it is, there is also a proposal for a gas pipeline along Burtonhole Lane (19/6641/FUL).

Paragraph 1.2.4 states that the batteries are for storage for use in periods of peak demand, thereby hinting that 19/6641/FUL is not a proposal for a peaking plant, which is an alternative to batteries, but for a medium scale power station.

Mill Hill has had a substantial increase in new housing built without pre-planned infrastructure, using up all brownfield sites, such as the old Mill Hill East gas works now replaced by the Lidbury Square estate. Then as an afterthought, the increased requirement for electricity is a justification for using Green Belt land. Any power requirements should have been built on the gas works site.

Paragraph 20 of the NPPF states the importance of an overall strategy (6.2.67) and there does not appear to be one. 'Overall demand for electricity is likely to double by 2050' (4.3.10) implies no behavioural changes to decrease consumption, together with an increased population. It is unclear how this is compatible with zero carbon emissions.

The long-term plans stretch to 2050 (4.4.2) so why will the development only last 25 years and then be dismantled? If requirement for electricity is to double by 2050, then how is it that this plant will be decommissioned (3.8.6) and the land returned to Green Belt? It is likely that the Green Belt with a 'Major Development' on it (see section 4 here) will be used for an even bigger installation.

By making two separate applications, 19/6641/FUL and 20/4241/FUL, the proposers avoid the need for Environmental Impact Assessments.

The B.S.F area: applied for 0.49 hectare compared to threshold of 0.5 hectare. Gas 'peaking' plant: applied for 49.9 MW compared to threshold of 50 MW. Both these capacities are curiously close to the thresholds? Are there any guarantees that these facilities not only will not exceed their permitted limits, but cannot? Together with 19/6641/FUL this becomes a major development of more than 1 hectare. Such a major development requires more scrutiny.

The batteries are 13.7 m long, 3.1 m wide and 2.9 m high (3.2.1), visually more 'solid' than the pylons in the sub-station. However, the field in which it will be located is surrounded by deciduous vegetation, which offers far less visual shielding in winter.

There are ventilation and cooling units at either end of each unit (3.2.1). If Hillview Road is affected by noise and vibration (5.7.3) then so will Burtonhole Lane.

There are no restrictions on noise output specified here (5.7.5) and no noise control methods in this specification, but possibly 'in the final design'(5.7.6). A full analysis of noise is essential, and must take into account the noise from the gas-fired power station proposed.

The battery system together with the power station is anything but low-carbon (4.3.10). These two proposals need to be looked at together; to claim that one part of the system (e.g.

car seats in a petrol-driven vehicle) is low-carbon is misleading.

Paragraphs 4.3.10- 4.3.20 read like 'greenwash', i.e. standardised text, full of buzzwords like 'smart', 'flexible', 'clean energy', 'low-carbon' to make the installation sound environmentally acceptable.

There is no allowance for foul drainage/ sewage (3.6.1). Any run-off that is polluted with battery or cleaning chemicals, will be discharged to the water table untreated.

The access roads will have to include Partingdale Lane and Burtonhole Lane. The latter is a footpath and bridleway and is unsuited to heavy vehicles. The Ridgeway is already overburdened with the heavy lorries associated with the construction of the Ridgeway Views and Millbrook Park estates.

In the Arboricultural Assessment of 20/4241/FUL individual trees are classified as high quality (4 out of 8), medium quality or low quality/unsuitable for retention. All the groups of trees are in the lower two categories. The set-aside habitat (Planning Drawing 2701-01-004b) is a small area immediately around the batteries.

Removal of '8 semi-mature trees to the east of the site considered to be of low ecological value '(3.5.2) is proposed.'

The large group of trees between the field and the public bridleway which is Burtonhole Lane, is called G4. 'Some trees within the G4 grouping would been (sic) to be removed to accommodate the access road, however there are no trees of veteran or ancient status here (5.6.4). By this categorisation, the developers have deemed it unnecessary to replace these trees (NPPF 175c which is quoted) and the much-mentioned screening provided by vegetation will be inadequate.

It is admitted that this is a Site of Importance for Nature Conservation and a site of Metropolitan Importance M127 (5.2.2). Section 5.2 tries to devalue the area as a justification for building on it. The site is said to be 'of limited ecological value and has no functional habitat' (5.2.3).

East of the site is Burtonhole Lane which is an old green lane now a public footpath and bridleway. It is a Grade II Site of Borough Importance for Nature Conservation (5.5.2) and is an area of biodiversity which will be harmed by having installations on either side of it.

It is repeated (5.2.3 and 6.2.66) that the 'grassland is for equestrian grazing and is therefore of little ecological value'. On the contrary, horses perform an important role in maintaining habitat, restoring plant diversity and pollinator populations.

The removal of this grazing area is therefore a double loss. Any wild animals there at present will be disturbed by the noise levels and intrusion into their habitat.

The ecological assessment in section 5 (e.g. 5.2.6 and 5.3.5) clearly contradicts the preliminary ecological appraisal made in 19/6641/FUL.

Section 5 mentions that the closest nature reserve is Totteridge Fields which is 2.2 km away Darlands Nature Reserve has been strangely omitted. It is only 700m away. Paragraph 5.2.4 reads 'No aquatic habitat is present within the Site or surrounding land, and no ponds are present within 250m of the Site', yet Folly Brook is 150m away and Darlands Lake is 750m away.

The proposal contributes incrementally to degradation of the Green Belt. The actual 'merging of neighbouring towns' (6.2.13) does not occur until the Green Belt is almost eroded, so the argument that 'the proposal would not result in any material merging of neighbouring towns' is spurious.

It is acknowledged that the site is considered to be 'inappropriate development' in Green Belt. As is usual in these cases, 'Special Circumstances' are claimed.

The battery facility should be associated with a renewable energy installation if the proposal is to be plausible. If not part of the gas peaking plant, the batteries should be sited totally within the existing transformer site.

Alternatively it could be sited in a brownfield location, with constraints on noise and air pollution if close to residential areas. 'Recycling of derelict and urban land' (6.2.13 point e) is appropriate in this case as the technology of transmission of electricity over large distances is well established.

Contrary to the statement in (7.1.4) I conclude that the Battery Storage Facility, particularly in conjunction with the gas peaking plant, will be responsible for damage to ecology, will increase flood risk and surface water drainage, and cause noise and air pollution. It will be seriously detrimental to the Green Belt and its accessibility to local residents.

For all these reasons I object to this scheme.

Cllr Golnar Bokaei

I could not at all support this application because of the Green Belt.

Cllr Val Duschinsky

I can confirm on behalf of all three Mill Hill councillors that we object to this proposal.

Cllr John Hart

I wanted to stipulate that thick tree and shrub screening be planted round the installation as the site is in the Green Belt.

Neighbouring / Residents Associations and Local Amenity Groups

Barnet Society

The Barnet Society strongly opposes this application to build in the Green Belt on a Site of Metropolitan Importance for Nature Conservation.

The site is a vital part of the surviving greenery between Totteridge and Mill Hill. If approved, its visual amenity and wildlife habitat will surely suffer despite the mitigation measures proposed.

The Planning Statement asserts (5.4.10) that 'the introduction of the proposed structures would not materially affect the openness of the Green Belt', but no visualisations are offered to prove the point.

We do not dispute the growing demand for energy, but battery storage is not one of the 'very exceptional circumstances' permitted by the National Planning Policy Framework. It would only be justifiable as part of a coherent regional strategy including detailed evaluation of alternative sites, endorsed by full public consultation and political support. No evidence of any of these is provided.

Approval would therefore set a very bad precedent, opening the door to further ad hoc proposals on nearby sites.

Darlands Conservation Trust

Objections on behalf of Darlands Conservation Trust who manage the Darlands Nature Reserve 700m North of the site.

This is inappropriate development in the Greenbelt in conflict with the objectives of including land in the greenbelt. Furthermore, the applicant has failed to demonstrate that very special circumstances exist. This is contrary to Barnet Policy DM15.

The proposed development is within The Mill Hill Substation pastures which is designated as a Site of Metropolitan Importance for Nature Conservation.

This proposal will result in the loss of 0.49 ha of grassland habitat equal to 6% of the nature reserve area (not 0.28% as the ecologist has stated) This is in addition to the 1.34ha of this nature reserve already under threat from application 19/6641/FUL currently under consideration for a gas peak power facility. A total of 1.83ha or 12.2% of the nature reserve.

The proposed security fencing will connect to the existing substation compound & proposed power facility to the east creating a barrier across much of the nature reserve, fragmenting habitats, damaging ecological networks and hindering terrestrial wildlife movements so vital to their feeding and breeding success.

The ecological survey fails to identify the importance of this habitat. The secluded habitat attracts over wintering birds such as Woodcock (Red List), Snipe (Amber list), Jack Snipe, Common Gull (Amber list) and flocks of Fieldfare & Redwing (both red list). Noise, heat & light disturbance from the plant and auxiliary equipment will result in the loss of these threatened species.

Grass snake, adders & slow worms are found here but no measures are proposed to protect them from harm.

No compensation is proposed for the felling of 8 healthy semi mature trees.

Proposed ecological mitigations are inadequate & will not address the likely impacts on the reserve or the wider Folly Brook valley. There will be significant biodiversity net loss contrary to NPPF & Barnet Policy DM16.

The Biodiversity Net gain metric provided uses V2 of the method which was replaced by V3 in July 2021 due to errors within it.

Claims of habitat 'improvements' are disingenuous, unsubstantiated and fail to demonstrate biodiversity net gain. Proposals will result in further loss of priority grassland habitat, for which the site is designated. The area to be lost is understated in the metric because areas of non-intervention management and new hedgerow planting proposed for the larger area surrounding the redline are not included. No new habitats are being created, merely converted from one type to another and in the case of scrub, one of a lesser value.

Furthermore, the poor baseline condition is a result of years of over grazing permitted by the applicant who has previously sought expert advice on the management of this SINC but have allowed grazing at this unsustainable level to continue in the full knowledge of the damage it was causing.

Herts & Middlesex Wildlife Trust

Objection: Proposed development would result in the destruction of a proportion of an irreplaceable habitat designated as a site of metropolitan importance, no justification for why the impacts cannot be avoided by locating on a less important site, measurable net gain to biodiversity has not been proven, insufficient detail supplied on compensation measures. The ecological report is therefore not compliant with BS 42020, NPPF, the London Plan 7.19 D and E, or DM16 of the Barnet Local Plan.

1. NPPF states:

170. Planning policies and decisions should contribute to and enhance the natural and local environment by:

d) minimising impacts on and providing net gains for biodiversity

175. When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable' net gains for biodiversity.

The London Plan states:

D On Sites of Importance for Nature Conservation development proposals should:

b give strong protection to sites of metropolitan importance for nature conservation (SMIs).

These are sites jointly identified by the Mayor and boroughs as having strategic nature conservation importance.

E When considering proposals that would affect directly, indirectly or cumulatively a site of recognised nature conservation interest, the following hierarchy will apply:

1 avoid adverse impact to the biodiversity interest

2 minimise impact and seek mitigation

3 only in exceptional cases where the benefits of the proposal clearly outweigh the biodiversity impacts, seek appropriate compensation.

The Barnet Local Plan states:

Policy DM16: Biodiversity

a. When considering development proposals the council will seek the retention and enhancement, or the creation of biodiversity.

b. Where development will affect a Site of Importance for Nature Conservation and/or

species of importance the council will expect the proposal to meet the requirements of London Plan Policy 7.19E.

This development will result in the destruction of a minimum of 0.39 ha of an irreplaceable grassland habitat. This will undoubtedly be more when the peripheral actions of machinery and storage are taken into account. The development footprint will unavoidably be greater than this. NPPF, the London Plan and the Barnet Local Plan direct the LPA to refuse applications of this type, unless there are exceptional circumstances and sufficient 'measurable' compensation has been provided.

Insufficient justification has been provided to explain why the impacts cannot be avoided by locating on another site, why the circumstances are exceptional, or, if these two cases are proven, how the compensation (which has not been definitively proposed only suggested vaguely) will achieve a measurable net gain in biodiversity. At present claims of net gain are entirely unsubstantiated, subjective and unmeasurable.

2. Measurable net gain. NPPF states:

170. Planning policies and decisions should contribute to and enhance the natural and local environment by:

d) minimising impacts on and providing net gains for biodiversity

174. To protect and enhance biodiversity and geodiversity, plans should:

b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

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d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable' net gains for biodiversity.

The object of an ecological report submitted in support of a planning application should be to demonstrate how the proposals are capable of being consistent with NPPF and local planning policy. Therefore, the ecological report should state, what is there, how it will be affected by the proposal and how any negative impacts can be avoided, mitigated or compensated in order to achieve 'measurable' net gain to biodiversity. Subjective assessments of net impact (as in this case) are not sufficient, not 'measurable' and therefore not consistent with policy.

In order to prove net gain to biodiversity, the ecological report must include a 'measurable' calculation of the current ecological value of the site and what will be provided following the development. BS 42020 states:

'8.1 Making decisions based on adequate information

The decision-maker should undertake a thorough analysis of the applicant's ecological report as part of its wider determination of the application. In reaching a decision, the decision-maker should take the following into account:

h) Whether there is a clear indication of likely significant losses and gains for biodiversity.'

The most objective way of assessing net gain to biodiversity in a habitat context is the application of the most recent iteration of Defra biodiversity metric v2. This metric assesses ecological value pre and post development on a habitat basis, has been upheld by the planning inspectorate as an appropriate mechanism for achieving the ecological aims of NPPF, and is advocated in: https://www.gov.uk/guidance/natural-environment

In order to meaningfully and measurably accord with planning policy to achieve net gain to biodiversity, the applicant will need to use this metric. The development must show a net positive ecological unit score to demonstrate compliance with policy. Habitat mitigation can be provided on or offsite. This will give some legitimacy to statements claiming that net gain can be achieved. This application should not be approved without this information.

3. BS42020

BS 42020 states:

'6.6.2 An ecological report should avoid language that suggests that recommended actions "may" or "might" or "could" be carried out by the applicant/developer (e.g. when describing proposed mitigation, compensation or enhancement measures). Instead, the report should be written such that it is clear and unambiguous as to whether a recommended course of action is necessary and is to be followed or implemented by the applicant.'

Once it has been accurately and measurably calculated how much habitat creation is required to offset the impact of the proposals, all ecological mitigation, compensation or enhancement measures suggested in the ecological report must be definitively stated.

The ecological report is full of examples of conceptual mitigation or compensation which is neither measurable nor definitively described. For example:

4.2.3 A small area (0.39ha) of neutral semi-improved grassland within the SINC will be lost by the proposed development. This equates to 0.28% of the SINC, so the non-statutory site will be largely unaffected. Measures are proposed to compensate for the loss of grassland habitat, which will ensure that the overall biodiversity interests of the grassland and other habitats within the SINC are not lost and can be maintained and enhanced over the long term through suitable mitigation and management.

4.2.6 Such measures include; (1) Targeted management to encourage and maintain a diverse sward within the grassland habitat

4.2.10 Mitigation measures are proposed to protect and enhance the main body of Mill Hill Pastures SINC outside the Site. These measures may also indirectly benefit species using Burtonhole Lane and Pastures SINC

Yet no details that enable the accurate quantification of this undefined habitat mitigation and compensation plan have been proposed. None. We are being asked to just accept that the developer will provide sufficient compensation and ongoing management to compensate for the loss of this designated wildlife site.

It is fundamental to the assessment of the compensation that all management or habitat creation is clearly and definitively described, so that it can be gauged whether it is sufficient to be consistent with policy. Compensation measures cannot be left to condition because there is no guarantee that they will be enough. This information has not been provided and so on this basis alone the application cannot be determined.

Summary

o The loss of a substantial proportion of a site of metropolitan importance for nature conservation is not acceptable or consistent with local or national policy

o The grassland is a priority habitat and irreplaceable in a meaningful ecological sense

o No justification has been provided as to why the destruction of the site represents an exceptional circumstance

o Ecological impacts have not been measured by reference to the Defra biodiversity metric.

o Without an objective measurement of net ecological impact, claims of net gain are spurious and unsubstantiated

o Compensation measures have not been definitively proposed

o The proposal is demonstrably in conflict with BS 42020, NPPF, the London Plan and the Barnet Local Plan

o Without this information the proposal must be refused

New information has been submitted since the previous objection by HMWT. This response addresses this information and reiterates existing objections where appropriate.

Objection: Proposed development would result in the destruction of a proportion of an irreplaceable habitat designated as a site of metropolitan importance, no justification for why the impacts cannot be avoided by locating on a less important site, the biodiversity metric has not been populated or justified correctly so net gain has not been proven, insufficient detail supplied on compensation measures. The ecological report is therefore not compliant with BS 42020, NPPF, the London Plan 7.19 D and E, or DM16 of the Barnet Local Plan.

1. NPPF states:

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The London Plan states:

D On Sites of Importance for Nature Conservation development proposals should:

b give strong protection to sites of metropolitan importance for nature conservation (SMIs). These are sites jointly identified by the Mayor and boroughs as having strategic nature conservation importance.

E When considering proposals that would affect directly, indirectly or cumulatively a site of recognised nature conservation interest, the following hierarchy will apply:

1 avoid adverse impact to the biodiversity interest

2 minimise impact and seek mitigation

3 only in exceptional cases where the benefits of the proposal clearly outweigh the biodiversity impacts, seek appropriate compensation.

The Barnet Local Plan states:

Policy DM16: Biodiversity

a. When considering development proposals the council will seek the retention and enhancement, or the creation of biodiversity.

b. Where development will affect a Site of Importance for Nature Conservation and/or species of importance the council will expect the proposal to meet the requirements of London Plan Policy 7.19E.

This development will result in the destruction of a minimum of 0.39 ha of an irreplaceable grassland habitat. This will undoubtedly be more when the peripheral actions of machinery and storage are taken into account. The development footprint will unavoidably be greater than this. NPPF, the London Plan and the Barnet Local Plan direct the LPA to refuse applications of this type, unless there are exceptional circumstances and sufficient 'measurable' compensation has been provided.

Insufficient justification has been provided to explain why the impacts cannot be avoided by locating on another site, why the circumstances are exceptional, or, if these two cases are proven, how the compensation (which has not been definitively proposed only suggested vaguely) will achieve a measurable net gain in biodiversity. At present claims of net gain are entirely unsubstantiated, subjective and unmeasurable.

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The decision-maker should undertake a thorough analysis of the applicant's ecological report as part of its wider determination of the application. In reaching a decision, the decision-maker should take the following into account:

h) Whether there is a clear indication of likely significant losses and gains for biodiversity.'

In order to address the previous lack of information, a Natural England Biodiversity Metric has been supplied. However, the condition assessment for the 'other neutral grassland' pre and post development (both on and offsite), has not been adequately justified. It is critical that this condition score is accurate, reliable and supported by data. Evidence for the existing condition score (fairly poor), cross referenced against the guidance that accompanies the metric and supported by photographs, must be provided. Similarly, it must be shown how the habitat mitigation measures will achieve the 'good' condition that has been claimed. This must be supported by the management regime required to achieve it and financial

arrangements to secure its delivery in perpetuity. This must also be supported by clear maps of the site for the avoidance of doubt.

3. BS42020

BS 42020 states:

'6.6.2 An ecological report should avoid language that suggests that recommended actions "may" or "might" or "could" be carried out by the applicant/developer (e.g. when describing proposed mitigation, compensation or enhancement measures). Instead, the report should be written such that it is clear and unambiguous as to whether a recommended course of action is necessary and is to be followed or implemented by the applicant.'

Once it has been accurately and measurably calculated how much habitat creation is required to offset the impact of the proposals, all ecological mitigation, compensation or enhancement measures suggested in the ecological report must be definitively stated.

The ecological report is full of examples of conceptual mitigation or compensation which is neither measurable nor definitively described. For example:

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Yet no details that enable the accurate quantification of this undefined habitat mitigation and compensation plan have been proposed. None. We are being asked to just accept that the developer will provide sufficient compensation and ongoing management to compensate for the loss of this designated wildlife site.

It is fundamental to the assessment of the compensation that all management or habitat creation is clearly and definitively described, so that it can be gauged whether it is sufficient to be consistent with policy. Compensation measures cannot be left to condition because there is no guarantee that they will be enough. This information has not been provided and so on this basis alone the application cannot be determined.

Summary

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o The grassland is a priority habitat and irreplaceable in a meaningful ecological sense

o No justification has been provided as to why the destruction of the site represents an exceptional circumstance

o The condition scores in the NE biodiversity metric have not been adequately justified.

o Compensation measures have not been definitively proposed

o The proposal is demonstrably in conflict with BS 42020, NPPF, the London Plan and the Barnet Local Plan

o Without this information the proposal must be refused

Hillview Road Residents Association

On behalf of all the residents of Hillview Road, the Association strongly objects to this application on the following grounds:

1. The application states that the land in question is "Adjacent to The National Grid Substation Partingdale Lane London NW7 1NS" but FAILS to describe it as adjacent to the properties in Hillview Road NW7 1AJ. The nearest house on Hillview Road to the proposed facility is only 135 metres away, not 350 metres as misleadingly stated in the application. This description therefore is at best misleading and at worst disingenuous.

2. The proposed site is in a Green Belt location and therefore should be protected from industrial development. The application clearly contravenes sections 144 and 145 of the National Planning Policy Framework.

3. The proposed development would lead to a loss of existing amenity enjoyed by all residents of Hillview Road and its adjacent roads and homes

4. The proposed site is a haven for wildlife being a Metropolitan Site of Importance for Nature Conservation. Among the many and varied species currently living in that location and in the adjoining woods are Muntjac deer, bats, badgers, dormice, hares, rabbits, squirrels and a variety of birds: owls, woodpeckers, parakeet, doves and other avians. These will be destroyed by the loss of habitat.

5. An industrial development so close to the homes of our residents will create a massive increase in pollution. Such damaging and heath threatening pollution includes:

a. Noise - The proposed battery storage facility will have 40 air conditioning units (2 per container). The applicant's Noise Impact Assessment acknowledges (para 8) that the noise rating level of these will produce greater than background sound level (and on a 24/7 basis). As acknowledged in the application, Barnet's Environmental Health department requires limits of 5 or 10 decibels below background sound level, but no proposals to achieve this are contained within the application. Noise is of course injurious to human health both on a physical and a mental basis.

b. Light - the industrial plant installation will be subject to security measures which will include security lighting that will destroy the nightime peace of this semi rural area and will disturb and destroy the varied wildlife referred to above

c. Dust - the building and operation of this industrial plant will add pollutant particles to the local atmosphere

6. Many of our residents will be forced to add protective measures to their homes causing unplanned and unnecessary expense e.g. window blinds and soundproofing.

On a positive note there is adequate space within the current land area used by The National Grid to locate such a facility as this without impacting the residents of Hillview Road and without destroying Green Belt land.

This application should be firmly rejected by the Planning Committee.

Mill Hill Neighbourhood Forum

1. OVERVIEW

There were 423 objections to the power station proposal (gas peaking plant) 19/6641/FUL.

It is clear that the Battery Storage Facility (B.S.F) will stand in addition to rather than in place of the proposed gas peaking plant.

The reasons are:

o It will be encroaching on previously undeveloped Green Belt land, to the west of the transformer site.

o It is not being built within the transformer site.

o It is to have the same capacity of 50 MW (1.1.1, 6.2.13) as the proposed gas peaking plant, hinting that the two developments are linked.

o There is nowhere in 20/4241 which states that it is a replacement.

o There are repeated references to the use of storage in conjunction with renewable energy, yet there are no plans for any renewable energy sources on or near the site.

o Appendix G in 20/4241/FUL gives examples of gas peaking and battery applications in Green Belts. In Rochford Essex, an application for a 49.99MW gas-fired generating facility was accompanied by a separate application for a battery storage facility.

o This proposal proves that major applications are made incrementally. In this way individual applications can comply with thresholds (see sections 3 and 4 here) and the full impact is not apparent in the first wave of opposition.

We are also expecting a proposal for a gas pipeline along Burtonhole Lane (19/6641/FUL). Paragraph 1.2.4 states that the batteries are for storage for use in periods of peak demand, thereby hinting that 19/6641/FUL is not a proposal for a peaking plant, which is an alternative to batteries, but for a medium scale power station.

If the peaking plant with associated batteries is built in the face of fierce local opposition, what has happened to localism and our democracy?

2. STRATEGY FOR INFRASTRUCTURE and SECURITY OF POWER SUPPLY

This application proves the fallacy of using up brownfield land for housebuilding so that when industry, infrastructure or logistics is needed for the increased population, the use of Green Belt is demanded.

Mill Hill has had a massive increase in new housing built without pre-planned infrastructure, using up all brownfield sites, such as the old Mill Hill East gas works now replaced by the Lidbury Square estate. Then as an afterthought, the increased requirement for electricity is a justification for using Green Belt land. Any power requirements should have been built on the gas works site.

The NPPF para 20 states the importance of an overall strategy (6.2.67) and there does not appear to be one.

'Overall demand for electricity is likely to double by 2050' (4.3.10) implies no behavioural

changes to decrease consumption, together with an increased population. It is unclear how this is compatible with zero carbon emissions.

The long-term plans stretch to 2050 (4.4.2) so why will the development only last 25 years and then be dismantled? If requirement for electricity is to double by 2050, then how is it that this plant will be decommissioned (3.8.6) and the land returned to Green Belt? It is likely that the Green Belt with a 'Major Development' on it (see section 4 here) will be used for an even bigger installation.

3. ENVIRONMENTAL IMPACT ASSESSMENT AVOIDED

By making two separate applications, 19/6641/FUL and 20/4241/FUL, the proposers avoid the need for Environmental Impact Assessments.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/630689/eia-thresholds-table.pdf

The B.S.F area: applied for 0.49 hectare compared to threshold of 0.5 hectare. Gas 'peaking' plant: applied for 49.9 MW compared to threshold of 50 MW. Both these capacities are remarkably close to the thresholds.

4. RESTRICTIONS ON A MAJOR DEVELOPMENT AVOIDED

Together with 19/6641/FUL this becomes a Major Development of more than 1 hectare. https://www.legislation.gov.uk/uksi/2015/595/pdfs/uksi_20150595_en.pdf A major development requires more scrutiny.

5. VISIBILITY

The batteries are 13.7 m long, 3.1 m wide and 2.9 m high (3.2.1), visually more 'solid' than the pylons in the sub-station. As can be seen in the photo here, the field is surrounded by deciduous vegetation, which offers much less visual shielding in winter.

6. NOISE AND POLLUTION

There are ventilation and cooling units at either end of each unit (3.2.1). If Hillview Road is affected by noise and vibration (5.7.3) then so will Burtonhole Lane.

There are no restrictions on noise output specified here (5.7.5) and no noise control methods in this specification, but possibly 'in the final design'(5.7.6). A full analysis of noise is essential, and must take into account the noise from the gas-fired power station proposed.

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There is no allowance for foul drainage/ sewage (3.6.1). Any run-off that is polluted with battery or cleaning chemicals, will be discharged to the water table untreated.

7. ROAD ACCESS

The access roads will have to include Partingdale Lane and Burtonhole Lane. The latter is a footpath and bridleway and is unsuited to heavy vehicles. The Ridgeway is already overburdened with the heavy lorries associated with the construction of the Ridgeway Views and Millbrook Park estates.

8. TREE REMOVAL

In the Arboricultural Assessment of 20/4241/FUL individual trees are classified as high quality (4 out of 8), medium quality or low quality/unsuitable for retention. All the groups of trees are in the lower two categories. The set-aside habitat (Planning Drawing 2701-01-004b) is a small area immediately around the batteries.

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The large group of trees between the field and the public bridleway which is Burtonhole Lane, is called G4. 'Some trees within the G4 grouping would been (sic) to be removed to accommodate the access road, however there are no trees of veteran or ancient status here (5.6.4). By this categorisation, the developers have deemed it unnecessary to replace these trees (NPPF 175c which is quoted) and the much-mentioned screening provided by vegetation will be inadequate.

9. ECOLOGY

It is admitted that this is a Site of Importance for Nature Conservation and a site of Metropolitan Importance M127 (5.2.2). Section 5.2 tries to devalue the area as a justification for building on it. The site is said to be 'of limited ecological value and has no functional habitat' (5.2.3).

East of the site is Burtonhole Lane which is an old green lane now a public footpath and bridleway. It is a Grade II Site of Borough Importance for Nature Conservation (5.5.2) and is an area of biodiversity which will be harmed by having installations on either side of it.

It is repeated (5.2.3 and 6.2.66) that the 'grassland is for equestrian grazing and is therefore of little ecological value'. On the contrary, horses perform an important role in maintaining habitat, restoring plant diversity and pollinator populations. https://appliedecologistsblog.com/2019/04/05/horse-grazing-restores-plant-diversity-and-pollinator-habitat-use/

The removal of their grazing area is therefore a double loss. Any wild animals there at present will be disturbed by the noise levels and intrusion into their habitat.

The ecological assessment in section 5 (e.g. 5.2.6 and 5.3.5) clearly contradicts the preliminary ecological appraisal made in 19/6641/FUL.

https://publicaccess.barnet.gov.uk/onlineapplications/files/10ECEF22C946D999C729A953786E4F38/pdf/19_6641_FUL-PRELIMINARY_ECOLOGICAL_APPRAISAL-4648001.pdf

Section 5 mentions that the closest nature reserve is Totteridge Fields which is 2.2 km away

Darlands Nature Reserve has been strangely omitted. It is only 700m away.

Paragraph 5.2.4 reads 'No aquatic habitat is present within the Site or surrounding land, and no ponds are present within 250m of the Site', yet Folly Brook is 150m away and Darlands Lake is 750m away.

10. GREEN BELT

The proposal contributes incrementally to degradation of the Green Belt. The actual 'Merging of neighbouring towns' (6.2.13) does not occur until the Green Belt is almost eroded, so the argument that 'the proposal would not result in any material merging of neighbouring towns ' is spurious.

It is acknowledged that the site is considered to be 'inappropriate development' in Green Belt. As is usual in these cases, 'Special Circumstances' are claimed.

11. SUMMARY

The battery facility should be associated with a renewable energy installation if the proposal is to be plausible. If not part of the gas peaking plant, the batteries should be sited totally within the existing transformer site.

Alternatively it could be sited in a brownfield location, with constraints on noise and air pollution if close to residential areas. 'Recycling of derelict and urban land' (6.2.13 point e) is appropriate in this case as the technology of transmission of electricity over large distances is well established.

Contrary to the statement in (7.1.4) we conclude that the Battery Storage Facility, particularly in conjunction with the gas peaking plant, will be responsible for damage to ecology, will increase flood risk and surface water drainage, and noise and air pollution. It will be seriously detrimental to the Green Belt and its accessibility to local residents.

Mill Hill Preservation Society

The Society stands by its original letter of objection as we feel the additional information has not changed the principle of the scheme. As the Gas Peaking Plant application has been withdrawn there is more optional space available to relocate the BESS without spoiling a Green Belt paddock. This image shows the location of the intended installation.

ECOLOGY: We have examined the additional information on the LBB planning portal and our letter is drafted accordingly. It would appear that the Applicant is trying to respond to the comments made previously on ecology, in particular seeking to address net biodiversity gain, as required by paragraph 180.d) of the National Planning Policy Framework (NPPF) 2021.

Interestingly enough the Applicant has opted to use the Natural England Biodiversity Metric 2.0 that was replaced with the 3.0 Metric in July 2021. Achieving net gain using the 2.0 metric on sites such as this is perceived as easier due to added flexibility within the metric when considering the base conditions that simply isn't available in 3.0. Whilst all our other comments remain relevant, as the scheme hasn't changed, it is worth highlighting that the most up to date metric has not been used and that the work was obviously undertaken after the 2.0 metric was superseded. There is no excuse for this error and no confidence should therefore be gained from this submitted information. The applicant should be requested to

provide accurate information using the 3.0 metric.

NOISE: It is required that measures proposed for noise reduction meet Barnet's Environmental Health Guidance limit. As the plant has not been selected yet this matter is unclear. Moreover, given the existing constant humming from the sub-station experienced by Hillview Road residents, the BESS noise will be cumulative. The Avian Ecology report indeed admits that night-time noise in Hillview Road may have an adverse impact on residents. It is particularly concerning that the response to the comments on noise from the Environmental Protection Officer states that any noise mitigation measures will only be submitted "just prior to construction of the development". This would give the applicant carte blanche to design measures over which there is no further control if they are ineffective. This is unacceptable to the Society.

Conclusions

MHPS feels it has argued a good case against this application. We can see no justification as to why this is thought a suitable location for the 'Mill Hill Battery Energy Storage System' (BESS) facility including inverter and transformer stations, given that sort of facility would be best associated with an actual renewable energy installation, preferably on a brownfield site.

We believe that the applicant should use Natural England Biodiversity Metric 3.0 (July 2021) to evaluate the ecological impact.

Residents living close to the proposed facility may be affected by noise pollution in particular; the nearest Hillview Road dwellings being just 120m distant (Clause 2.2 Environmental Noise Impact Assessment), not 350m as claimed in the planning document (Clause 2.1.4 Planning Statement), and it is imperative that the measures proposed for noise reduction meet Barnet's Environmental Health Guidance limits. As the plant has not been selected yet this matter is as yet undetermined. The risk of noise issues strongly suggests that the BESS should be located as far as possible from residential areas.

Without adequate evidence we conclude that this facility will be responsible for damage to ecology, will increase flood risk and hamper surface water drainage and, with light and noise pollution, will be detrimental to the Green Belt and its accessibility to local residents.

We implore officers to refuse the application.

NW London RSPB Group

Members of the NW LONDON RSPB GROUP write again to OBJECT to this planning application which adversely impacts upon a Site of Metropolitan Importance for Nature Conservation (SINC), the protected Green Belt and the area's rural aesthetic ambiance and historic character much cherished by the local community.

The ecological conclusions are disingenuous and mitigation measures are still inadequate and fail to identify the importance of the SINC and surrounding area which supports a wide variety of natural species, many of which (cited by local naturalists and recorded on the London Natural History Society database) are of national conservation concern. Construction, development, then operation and maintenance of the facility will adversely affect many of these threatened species and the ecosystems upon which they rely.

The proposed ecological mitigations are still woefully inadequate and will not address the likely impacts on the SINC or the wider Folly Brook valley. There will be significant

biodiversity net loss contrary to National Planning Policy Framework (NPPF), the London Plan, Barnet Policy DM15 & 16 and Government recently re-stated policy to protect nature and the long established Green Belt.

Protecting the natural environment is now even more important in the light of the Climate Change issues. The applicant has failed to demonstrate net biodiversity gain, any exceptional circumstances for building on a SINC or the Protected Green Belt or even why this facility could not be constructed elsewhere on a brown field site.

The many serious objections raised to this application (particularly those cited by the Herts & Middx Wildlife Trust, the Darlands Conservation Trust, Mill Hill Preservation Society, etc.).

Additionally, the objections to the Gas Peaking Plant apply equally here. Both this application and the GPP (19/6641/FUL - still outstanding?) should be considered as one major development, not processed in a piecemeal manner.

Both applications fail to meet the requirements of stated planning policy and should therefore be REFUSED.

Totteridge Residents' Association

On behalf of Totteridge Residents' Association I would be grateful if you would bring to the attention of the Planning Committee our views on the above application.

This application seeks to install 20 BESS containers each measuring 13.7m long x 3.1m wide and 2.9m high together with 10 inverter/transformer stations and other ancillary equipment in the Green Belt and on land that is a designated site of Metropolitan Importance for Nature Conservation.

We are of the view that this is unacceptable and harmful to the character and appearance of the Green Belt and nature conservation and if constructed the resultant noise and pollution would also be harmful to the occupants of the nearby residential dwellings.

5. Planning Considerations

5.1 Policy Context

National Planning Policy Framework and National Planning Practice Guidance

The determination of planning applications is made mindful of Central Government advice and the Local Plan for the area. It is recognised that Local Planning Authorities must determine applications in accordance with the statutory Development Plan, unless material considerations indicate otherwise, and that the planning system does not exist to protect the private interests of one person against another.

The revised National Planning Policy Framework (NPPF) was published on 20th July 2021. This is a key part of the Governments reforms to make the planning system less complex and more accessible, and to promote sustainable growth.

The NPPF states that "the purpose of the planning system is to contribute to the achievement of sustainable development", delivered through three overarching objectives; economic, social and environmental. Opportunities of the latter include protection and

enhancement of the natural environment, improving biodiversity and adapting to climate change, including moving to a low carbon economy.

The NPPF states at paragraph 152 that "The Planning system should support the transition to a low carbon future in a changing climate... It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources...and support renewable and low carbon energy and associated infrastructure."

The Mayor's London Plan 2021

The London Development Plan is the overall strategic plan for London, and it sets out a fully integrated economic, environmental, transport and social framework for the development of the capital for the next 25-50 years. It forms part of the development plan for Greater London and is recognised in the NPPF as part of the development plan.

The London Plan provides a unified framework for strategies that are designed to ensure that all Londoners benefit from sustainable improvements to their quality of life.

The London Plan will require developments to contribute towards London's ambitious target to become zero-carbon by 2050 by increasing energy efficiency, including through the use of smart technologies, and utilising low carbon energy sources.

Barnet's Local Plan (2012)

Barnet's Local Plan is made up of a suite of documents including the Core Strategy and Development Management Policies Development Plan Documents. Both were adopted in September 2012.

- Relevant Core Strategy Policies: CS NPPF, CS1, CS5, CS7, CS9

- Relevant Development Management Policies: DM01, DM04, DM15, DM16, DM17

Barnet's Local Plan (Reg 22) 2021

Barnet's Draft Local Plan on 26th November 2021 was submitted to the Planning Inspectorate for independent examination which will be carried out on behalf of the Secretary of State for the Department of Levelling Up, Housing and Communities. This is in accordance with Regulation 22 of the Town and Country Planning (Local Planning) (England) Regulations 2021 (as amended).

The Regulation 22 Local Plan sets out the Council's draft planning policy framework together with draft development proposals for 65 sites. The Local Plan 2012 remains the statutory development plan for Barnet until such stage as the replacement plan is adopted and as such applications should continue to be determined in accordance with the 2012 Local Plan, while noting that account needs to be taken of the policies and site proposals in the draft Local Plan and the stage that it has reached.

5.2 Assessment

Background

Electricity storage is a key technology in the transition to a smarter and more flexible energy system and the Government acknowledges that it will play an important role in helping to reduce emissions to net-zero by 2050.

In July 2017, the Government and Ofgem published the 'Smart Systems and Flexibility Plan', followed by a 'Progress Update to the Plan in 2018. These documents set out 38 actions for the Government, Ofgem and the industry to take forward to support the transition to a smarter and more flexible system, including removing barriers to electricity storage. This document has recently been updated by the 'Transitioning to a net zero energy system which was published in July 2021.

In June 2019, the UK became the first major economy in the world to pass laws to end its contribution to global warming by 2050. The Climate Change Act 2008 (2050 Target Amendment) Order 2019 sets a legally binding target to bring all greenhouse gas emissions to net zero by 2050, compared with the previous target of at least 80% reductions from 1990 levels.

The UK Government published its Energy White Paper in December 2020. The Paper builds on the Prime Minister's Ten Point Plan to set the energy-related measures consistent with net zero emissions by 2050. One of the key aspects of achieving net zero identified in the paper is the modernisation of the energy system. The Paper indicates that electricity demand in the UK could double by 2050 due to the electrification of transport and heating.

The Applicant

The applicant Pelagic Energy is a developer of flexible generation and energy storage projects and operates a number of projects across the UK from the South Coast to Glasgow. A number of their projects are located adjacent to National Grid's Transformer Substations and within Green Belt locations.

The Need for the Development

There is an ever-increasing reliance on renewable forms of energy generation, such as wind and solar, to supply the UK's energy demands. Renewable energy sources are highly variable due to their weather dependency.

System frequency is a continuously changing variable that is determined and controlled by the second-by-second (real time) balance between system demand and total generation. If demand is greater than generation, the frequency falls while if generation is greater than demand, the frequency rises. If the transmission system is not maintained within the required frequency tolerance system stress can result in widespread power supply issues and damage to network infrastructure.

By importing excess renewable energy from the grid and storing it, batteries can capture energy that would otherwise be lost / unutilised due to curtailment of renewable energy generation. Between 2015 and 2019, curtailment costs rose in line with wind output from £90 to £145 million per year. This cost doubled in 2020 and National Grid ESO faced a bill of £282 million linked to reduced demand associated with Covid19 and increased renewable generation. In respect of their storage ability, batteries offer opportunities to support the intermittent nature of renewables by storing the excess energy they produce and importing

it back into the grid when demand requires.

During situations when primary power sources (e.g. traditional power stations) are interrupted, BSFs can bridge the gap in production, thus avoiding potential blackouts. It should be noted that the UK electricity network is wholly interconnected and issues in one geographic location can have far reaching implications on the network. Accordingly, BSFs offer additional capacity to deal with system stress and any variations in grid frequency at both a local and national level.

The Proposed Development is referred to by National Grid as a 'balancing service'. It would assist in balancing grid frequency at times of system stress.

National Grid produce annual reports that set out the predicted future requirements for essential electricity infrastructure that will be required to deliver the Government's legally binding target of Net Zero by 2050. The latest 2021 report states that "Electricity storage will become increasingly important as levels of renewable generation increase...while we see some increase in large-scale developments, such as pumped hydro in some scenarios, overall we expect battery storage to make up the largest share of capacity."

The Proposed Development would provide a flexible back-up power source to the Grid and can respond rapidly to variations that result from local and national energy demand, alongside increasing fluctuations in generation resulting from an ever-greater use of intermittent renewable energy sources. Accordingly, the Proposed Development would contribute towards ensuring that there is a reliable and constant supply of electricity across National Grid's transmission network.

Site Selection

Within the submitted Planning Statement, the applicant has set out the background and justification for site availability and selection.

The Planning Statement states that the applicant has carried out a site screening exercise for National Grid's Super Grid Transformer Substations. Of the 298 National Grid Super Grid Transformer Substations in the UK, only 168 have capacity to accommodate the scale of BSF proposed. A significant number of these sites are constrained due to the close proximity of housing or other environmental constraints. As such, there are only a limited number of sites suitable for BSF projects on National Grid's land.

Within the site selection process, the key criteria in selecting a location for the development include:

1. Co-location to an existing substation that has capacity to both export and import the requisite amount of electrical energy; and

2. Locational requirement to be sited proximate to existing electrical substations in order to allow connection to the National Grid, which will assist in minimising transmission losses, allowing the facility to provide a rapid response to any dip in grid frequency and also be viable in terms of the cost of grid connection.

The applicant undertook a search criteria within the Borough of Barnet and adjacent authorities and following consultation with National Grid, the Mill Hill Super Grid Substation is the only substation in the Borough with sufficient capacity to accommodate the development. Within a 3-mile radius of the site, the applicant could only identify one suitable site, the application site. The application site has considered to have the following factors:

- Sufficiently large enough to accommodate the proposed development;
- Site is screened by dense vegetation / woodland;
- Viewed in the context of the industrial structures within the substation;

- Close proximity would minimise connection costs and disturbance associated with connection offsite works;

- Separation from the nearest residential properties; and

- Site chosen within the SINC is of low ecological value with enhancements / compensatory measures introduced.

Alternative sites within Barnet were researched to ensure there was no land available that would be sequentially preferrable and which could be connected to the distributed system:

Totteridge Common, Totteridge, N20 8LU - Located in greenbelt and over 2 miles from available grid connection which is uneconomic in terms of distance from grid capacity.

Unit 3 & 4 Downland Close, Whetstone, N20 9LB - Rejected due to uneconomic distance from grid capacity (2.8 miles) and rent only available for 15 years.

Principle of development

The basic premise of the proposal involving the installation of a battery storage facility within the grounds of an existing substation would seemingly appear rational and reasonable. However, in this instance the key issues are the location and surrounding setting of the existing substation. The location of the proposed development is within the Metropolitan Green Belt and a designated site of Metropolitan Importance for Nature Conservation (SINC). It is these principle matters which determine whether the principle of development in this location and for the purposed purpose is acceptable.

The London Plan recognises that electricity is essential for the functioning of any modern city with demand expected to rise in lodnon in response to a growing population and economy, the increased take up of electric vehicles and the switch to electric heating systems. At para 9.3.9, it states that it is a concern that the electricity network and substations are at or near to capacity in a number of areas, and the plan will seek to ensure that appropriate infrastructure is in place and integrated within a wider smart energy system to meet London's needs. It continues at para 9.3.12, stating that "Land will be required for energy supply infrastructure including energy centres. These centres can capture and store energy as well as generate it. The ability to efficiently store energy as well as to generate it can reduce overall energy consumption, reduce peak demand and integrate greater levels of renewable energy into the energy system."

Green Belt

The National Policy Statement for Energy (NPS EN-1) sets out the Government's policy for the delivery of major energy infrastructure. The NPS recognises that a flexible approach to energy generation is required in order to provide backup supply for renewable energy sources, by stating "the more renewable generating capacity we have the more generation capacity we will require overall, to provide back-up at times when the availability of intermittent renewable sources is low." The proposed battery facility installation is part of a national programme of essential energy infrastructure to support the transition towards a low carbon future.

Section 5.10 of EN1 looks specifically at the issues surrounding the development of energy

infrastructure projects in the Green Belt. It recognises at paragraph 5.10.3 that although the re-use of previously developed land can make an important contribution to sustainable development, it may not be possible for many forms of energy infrastructure.

Paragraph 5.10.17 states that when located in the Green Belt, energy infrastructure projects are likely to comprise inappropriate development. Very special circumstances will not exist unless the harm by reason of inappropriateness, and any other harm, is outweighed by other considerations.

Paragraph 147 of the NPPF states that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances.

Paragraph 151 goes on to state that while elements of many renewable energy projects may be considered inappropriate in the Green Belt, the wider environmental benefits associated with increased production of energy from renewable sources may constitute very special circumstances.

The NPPF states that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence. The proposed development site is located within the Metropolitan Green Belt, which serves five purposes, as set out in paragraph 138 of the NPPF:

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 charter of historic towns; and

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

To check the unrestricted sprawl of large built up areas

The proposal is not located directly adjacent to a large built up area. Whilst there are new residential developments to the south (Millbrook Park) and to the west (Ridgeway Views), this area of land is contained by the surrounding open space and would not have any relationship with the new upcoming developments. The proposal would be seen in context with the existing energy substation. Therefore, the development would not increase the sprawl of these areas as it is separated by areas of open space, woodland and vegetation and is not a form of development which would comprise a form of development which would comprise an extension to an urban / built-up area.

To prevent neighbouring towns from merging into one another

The site is visually well contained and screened by existing vegetation and the substation adjacent to the east. This forms part of a larger expense of Green Belt and only occupies a very small proportion of it. Other than a couple of new individual residential developments in the surrounding area, the proposal would not result in any material impact of merging of neighbouring towns.

To assist in safeguarding the countryside from encroachment

Overall, given the scale of the existing substation and the significant area of which it occupies, it is considered that the substation has a significant industrial influence over this particular parcel. The proposal is relatively small in context and due to the retention of the

surrounding existing woodland and vegetation and proposed hedgerow planting, views of the development from the surrounding area will be very limited and in context of the existing substation. Therefore, for these reasons, the proposal will not result in a significant impermeable encroachment into the countryside.

To preserve the setting and special character of historic towns

The site is not located within or directly adjacent to a historic town / settlement but the Mill Hill Conservation Area lies to the west south-west and west. However, as set out in the above purposes, the site will be well screened by existing woodland, vegetation and proposed landscaping. It is not considered that the proposal will result in harm to the setting of this conservation area.

To assist in urban regeneration, by encouraging the recycling of derelict and other urban land

As set out in earlier sections of this report, the site selection process undertook an assessment exercise of suitable greenfield / brownfield sites and concluded that there were no other suitable options available and that the proposed development required to be sited in a location adjacent to the existing Super Grid Transformer Substation.

It is considered that the proposed development of a battery facility, which is not necessary considered to be an urban use, will have no impact on the site's contribution to assisting urban regeneration by encouraging the recycling of derelict land other urban land. The development will not have any impact on the functioning of the Green Belt to direct future development of other types towards derelict and urban land.

Appropriateness

Paragraph 149 of the NPPF states that LPA's should regard the construction of new building as inappropriate in the Green Belt. The proposed development would not fall within any of the stated exceptions and would therefore comprise of inappropriate development.

Openness

Barnet policy DM15 confirms that, "Except in very special circumstances, the Council will refuse any development in the Green Belt or MOL which is not compatible with their purposes and objectives and does not maintain their openness."

As set out above, it is considered that the proposed development is generally not in conflict with the five main purposes. There is no definition of openness in the NPPF but, in the Green Belt context, it is generally held to refer to freedom from, or the absence of development. The physical presence of any above ground development would to some extent diminish the openness of the Green Belt regardless or whether or not it can be seen.

Notwithstanding the above, it is acknowledged that openness goes beyond physical presence and that in the visual sense of openness is a qualitative judgement pertaining to the whole, including nature of buildings, footprint, height, bulk, mass, landscape and topography.

The physical site coverage would comprise just under 0.5 ha and the proposed development would comprise of the installation of 20no containers, 10no. inverters/transformer stations, associated infrastructure, security fencing, retaining wall, CCTV poles and an access track. The containers would measure a total height of approx. 3.5m, having been set upon concrete sleeper/skid foundations. The security fencing and CCTV poles would measure

2.4m high and the retaining wall 2m high.

The scale and footprint of the proposal is not insignificant and would all be set outside of the footprint of the existing hardstanding of the substation. Therefore, it is evident that there will inevitably be an impact on openness. The applicant proposes a series of mitigation measures in the form of new landscaping and vegetation planting around the perimeter of the site to help further screen the proposal. However, this does not strike out the creation of new development on an existing open area of land. In terms of visual harm, it is considered that due to the scale of development, its context adjacent to the Super Grid Substation and the existing landscaping and topography, any visual harm to openness would be localised to the immediate surrounding area. Notwithstanding this considered localised harm, the NPPF states that LPA's should ensure that substantial weight is given to any harm in the Green Belt.

In these circumstances, inappropriate development can only be supported where 'Very Special Circumstances' (VSC) is submitted and clearly outweighs all other considerations. The applicant has submitted their VSC case and this will be further set out and assessed further down in the committee report.

Character and Appearance

Barnet policy DM01 seeks to ensure that development proposals preserve or enhance local characteristics and respect the scale the appearance, scale, mass, height and pattern of surrounding buildings, spaces and streets.

The design of the proposed buildings is of a standard appearance which is designed with functionality in mind. The size and scale of the site is not higher than the neighbouring substation and as discussed earlier, with the existing screening and topography, would not be visually intrusive or detrimentally harmful to the area's character.

The proposed layout has been influenced by the operational requirement for the energy blocks and associated equipment and the site characteristics. The main components include the battery containers, transformers, switchgear container, auxiliary transformers, welfare/storage container, CCTV, security fencing, retaining wall and access track and turning areas.

In this particular context, it is considered that the proposal responds to the requirements of Barnet policy DM01.

Residential Amenity

The nearest residential receptors are along Partingdale Lane approximately 200m to the south of the site and Hillview Road (c120m) and Eleanor Crescent (c240m) to the west. Concerns have been raised through the letters of objection in relation to privacy, noise and safety of a proposed battery storage facility.

Due to the separation distances, nature of development and intervening landscape, it is not considered that the proposal would impact on privacy on neighbouring properties.

The application is supported by a Noise Impact Assessment which was undertaken in consultation with the Council's Environmental Health service. Likely sources of noise from the proposed development result from the HVAC units which will be connected to the battery storage units, transformers and inverter fans. At this stage, the report notes that final plant

specification has yet to be decided and the modelling and assessment has been carried out using data for plant that is typical for a development of this size and class. This is not untypical.

The assessment of impacts concludes that Hillview Road, during the night-time, the Rating level exceeds the background sound level by 1dB but is below the 'indication of an adverse impact, depending on context.' At all other locations and for both daytime and night-time, the Rating level is below or equal to the background sound level. As a result the proposed development is stated as having a low impact. In its summary, the report states that the assessment was undertaken on the scenario that all plant is operational continuously and at the maximum noise output. However, the report advises that this scenario is unlikely as not all the cooling plant will be operating simultaneously.

Subject to final specification and potential implementation of noise control options, the report states that the proposal would be able to comply with Barnet EH standards and its recommended condition.

The report has been assessed by the Council's Environmental Health service. The Officer comments that a site visit was undertaken and it is noted that there is currently an audible low frequency from the adjacent existing large National Grid Substation. The impact of the proposal would be relatively small compared to the existing impact. It was noted that the report had been undertaken based on plant / equipment yet to be confirmed and final details of all unit specification and mitigation would be sought via condition.

The applicant provided an additional response to the EHO's comments who is satisfied and accepts that their arguments have justification in the British standards.

The construction impacts of this site on air quality and noise would be adequately dealt with and controlled under a construction management plan.

In terms of environmental effect, the proposal is for battery storage. It would not result in any emission from the site. This includes odour and fumes.

Highways

Access to the proposed development would be facilitated by a new track from the existing road running adjacent to the substation circa 70m to the east. The substation road is currently used by vehicles access the substation from Partingdale Lane to the south.

The access track would be composed of a compacted hardcore and would allow construction and operational maintenance access to the site.

The Council's Highways Officer has reviewed the proposal and comments that the proposal is unlikely to have a significant highways impact as traffic movements are likely to be low, mainly consisting of maintenance vehicles. The Officer concludes that Highways would raise no objection to the proposal subject to conditions being attached relating to a construction management plan and road condition survey.

Landscape

The application is support by an Arboricultural Assessment which describes the site as currently being used for grazing of horses and has a number of trees withing and around its boundaries.

A total of 8no. individual trees and 9no. group trees were surveyed as part of the assessment. Four of the individual trees were classed as Category A trees, three individual and three group trees were classed as Category B trees and one individual and six group trees were classed as Category C trees. Of importance is individual T4, which has been considered as a ancient or veteran tree.

In order to facilitate the proposed development, a section of G4 would require removal to construct the access into the site from the east. Also, a small section of G5, a mixed group of broad leaved trees within the centre of the site which would be removed to be partly removed.

As a result of the proposal's siting within the centre of the site, the impact on all other trees is limited and involves minimal tree loss.

The report proposes tree protection measures around the site which are considered to be adequate in principle. A condition will seek final details of protection measures before any works commence on site.

It is considered that the loss of these trees on public tree amenity is likely to be low in the immediate area around the existing substation and proposed facility, due to the presence of other established trees.

Ecology and Biodiversity

The site is located within a site of Metropolitan Importance - 'Mill Hill Substation Pastures' and as such would be directly impacted by the proposed development. The application is supported by an Ecological Assessment which identifies that an area of 0.39ha of semi-improved grassland within the SINC will be lost, which equates to 0.28%. The assessment recommends a series of mitigation measures to enhance refuse, foraging and breeding opportunity for species associated with the habitats present within the SINC, and for biodiversity more generally. During the application, the applicant provided an ecological note and landscaping plan which proposes new native species shrub planting and low intensity management to allow areas of grassland to succeed to scrub to create hedgerow / scrub habitat around the site.

Further biodiversity benefit is proposed through the following elements:

1. Bird boxes of suitable design erected on trees;

2. Bat boxes of suitable design erected on trees;

3. Insect hotel/refugia feature (for a range of species from solitary bees to ground dwelling species);

4. Hedgehog refuge/hibernation boxes.

5. Habitat piles using cut material places in secure positions within the woodland adjacent to the substation to provide additional opportunities for invertebrates and other species.

A biodiversity assessment has been undertaken as requested by the Council's Ecologists using the Natural England Metric, and demonstrates that a net gain of 11% can be achieved through a combination of the above measures.

The ecological reports have been reviewed by the Council's Ecologist and is satisfied that effective mitigation and/or compensation measures have been proposed, giving rise to a

biodiversity net gain, so the non-statutory site will be largely unaffected. They recommend that conditions seeking a Construction Environmental Management Plan and biodiversity enhancements be attached.

In terms of other protected and notable species, the ecological reports do not consider that the proposed development will adversely affect birds, bats, badgers, amphibians, reptiles, hazel dormouse, hedgehogs and invertebrates.

Flood Risk and Drainage

The application is located entirely within Flood Zone 1.

The application is supported by a Surface Water Drainage Assessment which has assessed the potential surface water runoff rates and the required attenuation for the proposed development.

The proposed SuDS strategy comprises of permeable surfaces (crushed permeable stone and grass), surface water attenuation storage in the form of an infiltration trench along the perimeter of the site and if required surface water attenuation storage in the form of a basin and/or underground storage / oversized pipes.

With the implementation of the above strategy the assessment concludes that the scheme will not increase the risk of flooding to adjacent properties and development further downstream.

The proposal is therefore considered acceptable in relation to Barnet policy DM04 17 which seeks to ensure that adequate drainage provision is provided on site.

Planning Balance

The proposal has been deemed as inappropriate development in the Green Belt and is by definition harmful. This harm is to be given substantial weight and should not be approved expect in very special circumstances (VSC). The applicant has submitted a case for VSC which is outlined below:

The Case for Very Special Circumstances (VSC)

1. National Grid Security

There is a clear need to ensure security of supply through the development of a diverse energy generation system to support the increasing deployment of renewable energy, system stress, increased peak demands and a move to electric vehicles.

Battery storage can be considered as fully renewable due to its ability to store surplus renewable energy (e.g. from wind or solar) and then release that renewable energy back into the Grid at times of increased demand. Battery storage also has the advantage that it does not produce any emissions and so has zero negative impacts on climate change.

Storage, along with flexible energy generation solutions will be vital to support this renewable energy deployment. Storage has the advantage here that it cannot only provide a faster response that generation to increase in electricity demand in the Grid, but it can also store excess energy during times of low demand, and thus reducing renewable energy

potential wasted at times of low demand.

2. Renewable-associated Infrastructure

Para 151 of the NPPF states that "such very Special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources."

Para 152 states that "The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure."

3. Site Availability

Battery storage facilities can only be delivered where site conditions are favourable and two main criteria are both satisfied.

1. Firstly, and most importantly, battery storage facilities must be located proximate to an existing substation that has capacity to both export and import the requisite amount of electrical energy. There are a very limited number of sub-stations in the UK that are able to both import and export electricity from the grid. If a substation is not able to both import and export electricity, it cannot be linked to a battery storage facility.

2. Secondly, in order to allow connection to the National Grid, there is a locational requirement for battery storage facilities to be sited proximate to existing electrical substations. This is due to the need to: minimise transmission losses; ensure that the facility is well located to provide rapid response to any dip in grid frequency; and to remain viable in terms of the cost of grid connection.

Following consultation with National Grid it has been confirmed that the Mill Hill Super Grid Substation is the only substation in the Barnet authority area with sufficient capacity to accommodate the development.

4. Benefits of Battery Storage Facilities(BSF)

1. BSFs provide a means of allowing electricity from the grid to be imported and stored at times of low demand / high generation, which can then be exported back into the grids at times of higher demand / system stress.

2. Renewable energy sources are highly variable due to their weather dependency. As a result of the intermittent nature of renewables and the continuous requirement for National Grid to balance grid frequency, supporting energy balancing solutions need to be incorporated into the UK's energy strategy.

3. If the transmission system is not maintained within the required frequency tolerance system stress can result in widespread power supply issues and damage to network infrastructure. This is currently managed by paying generators to cease generation (curtailment) and/or demand side response (DSR). Between 2015 and 2019, curtailment costs rose in line with wind output from £90 to £145 million per year. This doubled in 2020 though, as National Grid faces a bill of £282 million linked to reduced demand associated with Covid. BSF will help maximise the amount of renewable energy that can be absorbed on the transmission network and will limit curtailment and associated costs to consumers.

4. During situations when primary power sources (e.g. traditional power stations) are

interrupted, BSFs can bridge the gap in production, thus avoiding potential blackouts. It should be noted that the UK electricity network is wholly interconnected and issues in one geographic location can have far reaching implications on the network. Accordingly, BSFs offer additional capacity to deal with system stress and any variations in grid frequency at both a local and national level.

5. Due to the Government target of cutting carbon emissions, this will inevitably see an increase in the development of renewable energy generation and this will need to be mirrored by similar increases in balancing services, such as the proposed development.

Conclusion on Green Belt Matters

The application proposes development to provide a battery storage facility which will allow a more efficient use of renewable energy and will as a result help to reduce carbon emissions to the benefit of the environment. This is in accordance with national and local planning policy and weighs strongly in favour of the development.

It is not considered that that the proposed development would conflict with the five purposes of the Green Belt; namely the sprawl of built up areas or the merging of neighbouring towns. Set within the context of the existing substation, associated infrastructure and it would not lead to encroachment of the countryside. There is the potential for adverse landscape and ecological impacts however it is likely these can be mitigated through landscaping schemes, appropriate construction methodology and biodiversity net gain. There will be no significant adverse impacts on residential amenity locally and again any potential for significant noise impact can be mitigated by proposed measures which will be further investigated and secured by conditions. Whilst there would be some effects on openness in both spatial and visual terms, these are very limited in terms of the surrounding context, the low scale of development, and proposed additional planting.

Any harm, moderate or otherwise, to the Green Belt attracts substantial weight. The 'very special circumstances' required to approve 'inappropriate' development in the Green Belt will not exist unless the potential harm to the Green Belt, by reason of inappropriateness and any other harm resulting from the proposal, is clearly outweighed by other considerations.

Very special circumstances relating to the locational need; innovative nature of the technology proposed; and the sustainability and energy resilience benefits of the proposal in helping contribute to the national target of decarbonisation by balancing the supply and demand of the electricity network have been put forward. Support has also been found in the NPPF and the London Plan with policies seeking to address climate change and the transition to a low carbon economy. As such, greater weight should be afforded to this.

It is a finely balanced decision, but it is considered that the applicant has demonstrated that very special circumstances exist which justify this proposal in the Green Belt. Landscape enhancements including a habitat management area with species rich grassland, scrub and native hedgerows, which will result in an increase in biodiversity in and around the site and ensure that the development is well integrated into the wider landscape.

On balance, it is concluded that the environmental, economic and social benefits that will be delivered as a result of this proposal are sufficient to outweigh any impact caused by inappropriate development in the Green Belt.

6. Equality and Diversity Issues

The proposal does not conflict with either Barnet Council's Equalities Policy or the commitments set in the Equality Scheme and supports the Council in meeting its statutory equality responsibilities.

7. Conclusion

The proposed development comprises essential electrical infrastructure to support the functioning and stability of the National Grid infrastructure and will support the aims of meeting the UK's Net Zero carbon emissions commitments and the Climate Emergency.

The applicant has justified that the Mill Hill substation site as being the only sequentially available suitable site and the proposal has sought to limit and/or mitigate negative impacts on the surrounding environment or on residential amenity.

The impacts on the local landscape character and the Green Belt, and the impacts on ecology are found to be localised. Very special circumstances have been demonstrated to account for the siting of the proposal in a Green Belt location. Impacts on the Green Belt have been demonstrated to be low and are otherwise outweighed by the benefits of the proposal.

In conclusion, the proposed development is in accordance with adopted local plan policies and is strongly supported by Government and London Policies, which encourages sustainable development which assists in the transition towards a low carbon future.

