HALSTEAD ROAD ECO HUB

PREPARED BY PEGASUS GROUP MAY 2022 P21-1814_22 ON BEHALF OF NATURALIS ENERGY DEVELOPMENTS LTD

ENVIRONMENTAL STATEMENT NON TECHNICAL SUMMARY





CONTENTS

INTRODUCTION	2
SITE CONTEXT	7
PROPOSED DEVELOPMENT	11
SOLAR FARM	15
CONSIDERATION OF ALTERNATIVES	17
LANDSCAPE AND VISUAL	22
HERITAGE AND ARCHAEOLOGY	25
CONCLUSION	26



INTRODUCTION

This Non Technical Summary (NTS) summarises the findings of the Environmental Statement (ES) that accompanies a full planning application submitted on behalf of Naturalis Energy Developments Ltd (the "Applicant") who is seeking to obtain planning permission for the construction of an Electric Vehicle Charging Station (including Sui Generis and E class uses) with all associated development together with a Solar Farm and Battery Storage and all associated equipment and necessary infrastructure (the "Proposed Development"). The Proposed Development is to be known as Halstead Road Eco Hub. The Application Site is located on land west on either side of Halstead Road, Kirby-le-Soken, Essex, C013 OLS and within the administrative area of Tendring District Council ("TDC", the "Council"). The ES was submitted to Tendring District Council (TDC) in December 2021 (TDC Application Reference 21/02181/ FUL). The planning application was validated on 11th January 2022 and is awaiting a decision. Following the statutory consultation period, the Applicant has considered comments provided by the public and statutory consultees and has made modifications to the proposals in response to representations made by third parties and through discussion with the LPA since the planning application was submitted. The proposed changes relate solely to the eastern (solar farm) part of the site and reduce the extent of the built infrastructure by increasing the residential set-back from the solar modules. The modifications to the overall site layout have been provided by the Applicant voluntarily as opposed to a request for Further Information under the EIA Regulations and are provided as Supplementary Environmental Information (SEI) to the ES.



The changes to the proposals include:

- an increase in the northern and southern residential buffer / set-back area from 15 metres to 30 metres
- increased set back distance from the solar panels for existing and proposed permissive paths (10m width where the footpath has solar modules on both sides and 5m width where the path is on the edge of the solar array)
- additional native species introduced to the planting palette to maximize the biodiversity net gain potential
- further landscaping enhancements to the site access to provide visual screening

Following the changes to the proposals as outlined above the Indicative Site Layout Plan and Landscape Strategy Plan have been updated. In addition, the Photomontages have also been updated. The SEI has confirmed the changes to the overall conclusions of the Landscape and Visual chapter and Archaeology and Heritage chapter of the Environmental Statement have not altered.



EIA REGULATIONS AND PROCEDURES

An Environmental Statement (ES) is a document that sets out the findings of an Environmental Impact Assessment (EIA). An EIA is a process for identifying the likely significance of environmental effects (beneficial or adverse) arising from a Proposed Development, by comparing the existing environmental conditions prior to development (the baseline) with the environmental conditions during/following the construction, operational and decommissioning phases of a development should it proceed. The EIA is carried out prior to the submission of a planning application.

The statutory requirements for carrying out an EIA, the contents of the ES and the procedures for determining planning applications for 'EIA Development' are set out within the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (the "EIA Regulations").

Where an application is made for planning permission for EIA Development the local planning authority (LPA) is not permitted under the EIA Regulations to grant planning permission unless they have first taken the relevant environmental information into consideration.



SCREENING

A request for a Screening Opinion was submitted to TDC on the 29th September 2021 and subsequently a response was received from the Council dated 21st October 2021 acknowledging the Proposed Development falls within the category of "Industrial installations for the production of electricity, steam and hot water" under Schedule 2, paragraph 3(a) of the EIA Regulations. The Application Site area is greater than the threshold of development area of 'exceeding 0.5ha' under Schedule 2 Section 3(a). The Screening Opinion concluded that whilst the Proposed Development represents Schedule 2 development, the development would lead to significant environmental effects, either in isolation or cumulatively, that would warrant the need for an Environmental Impact Assessment. Accordingly the Applicant has prepared an ES. The reference for the Screening request is 21/01680/ EIASCR.

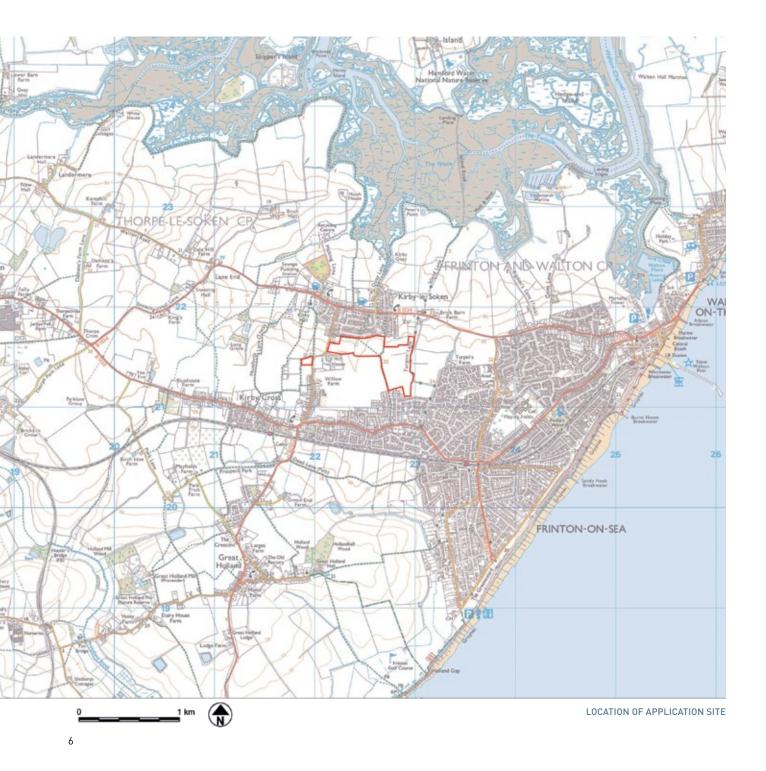
SCOPING

No formal scoping has been undertaken as direct discussions have been pursued with TDCs Planning Officers during a meeting on 19th November 2021 in relation to the scope of the ES.

THE EIA CONSULTANT TEAM

The ES has been co-ordinated and managed by Pegasus Group. Pegasus is accredited under the Institute of Environmental Management and Assessment (IEMA) 'Quality Mark' scheme which is a mark of excellence in EIA co-ordination and management. Pegasus Group have extensive experience of undertaking EIA work across a wide range of projects and development types including renewable energy and transport-related developments.





SITE CONTEXT

The Application Site (or "Site") covers an area of approximately 22.74 hectares (ha) comprising of two land parcels of agricultural land irregular in shape with multiple, interconnecting fields. The larger parcel to the east (c. 21.97 hectares) will contain the solar panels, and the smaller western parcel (c. 0.76 hectares) will contain the electric vehicle charging station, battery storage, substation and grid connection point. The site is described as land adjacent to Halstead Road, Kirby-le-Soken, Essex, C013 0UQ. The site is wholly within the Tendring District Council administrative area and within the Frinton and Walton Parish area.

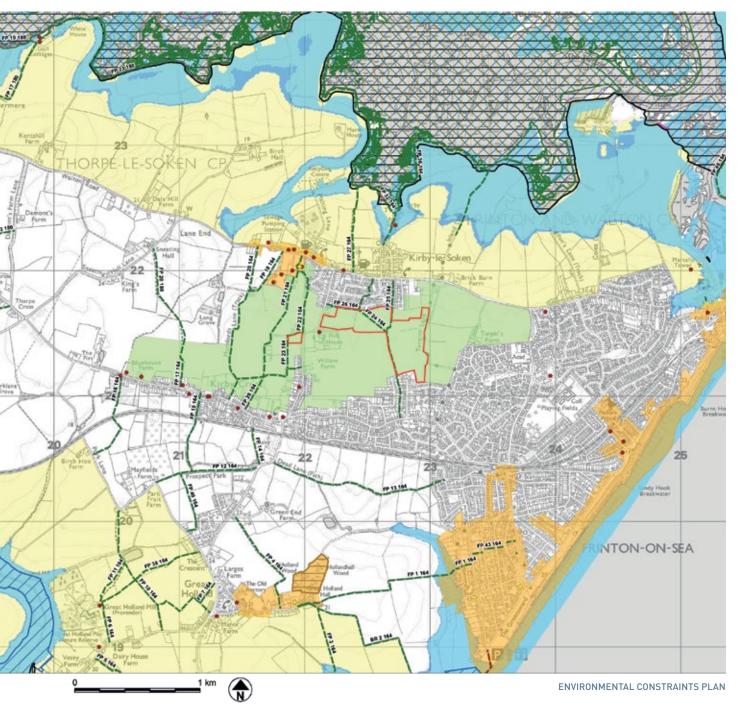
The Site's northern boundary of the larger parcel of land is adjacent to the urban edge of Kirby-le-Soken. The Site's southern boundary is adjacent to the urban edge of Kirby Cross. The Site at its closest point lies c.1.1km to the north-west of Frinton-on-Sea town centre and is c.2.2 km west of Walton-on-the-Naze town centre. The Site comprises fields presently in intensive agricultural use with mature and established boundary vegetation which would, alongside a scheme of landscaping to be developed, screen the development proposals from nearby public and private viewpoints.

The Site has fairly flat topography across the area at approximately 20 metres Above Ordnance Datum (AOD). The boundaries of the arable land are defined by existing vegetation of hedgerow and mature trees, tracks, and highways. The northern boundary of the larger parcel of land abuts rears gardens of residential properties within Kirby-le-Soken. Public Right of Way (PRoW) Essex footpath 26 164 defines part of the northern boundary and then bisects in a north-west to south-east direction across the Site. The eastern boundary is defined by an agricultural track connecting to Turpins Lane. The southern boundary is defined in part by rear gardens of residential properties within Kirby Cross. PRoW Essex footpath 24 164 defines the south-western boundary, with agricultural fields immediately adjacent. The western boundary is adjacent to Halstead Road/Shums Hill.

The smaller, western parcel of land is c.150m west of the larger parcel of land. The northern boundary is defined by an unnamed lane, with two residential properties on the northern side of the land. The eastern boundary is defined by Halstead Road, with isolated residential properties and agricultural fields immediately east. The southern boundary is adjacent to arable land and residential properties. The western boundary is defined by a track with a recreation ground immediately adjacent.

There are no statutory or non-statutory landscape designations covering the Application Site. The Site is located within a 'Green Gap' (Policy EN2-Local Green Gaps; Tendring District Local Plan 2007). In the emerging Tendring District Local Plan 2013-2033 and Beyond, only the larger, eastern part of the Application Site is in a 'Strategic Green Gap'. The Site is within National Character Area 111: Northern Thames Basin, and Clacton and Soken Clay (8B) Clay Plateaux character type and area of Tendring District.

The Site comprises almost entirely of a series of fields currently used for arable farming; the smaller parcel is currently fallow. The field margins are generally mixed hedgerows which are maintained, and gaps are infrequent. A PRoW (Essex footpath 24 164) defines part of the northern boundary of the larger parcel of land, and then bisects the Site in a north-west to south-east direction and then continues along the south-western boundary. PRoW (Essex footpath 23 164) defines the western boundary of the smaller parcel of land. The Public Rights of Way will be retained in the development proposed. A PRoW network is within the wider locality of the Site, connecting Kirby-le-Soken to Kirby Cross.



There are no International or European designated sites (Ramsar, Special Protection Area or Special Areas of Conservation) within or adjacent to the site.

Within a 5km radius are the following designated sites:

- Hamford Water Ramsar, NNR, SSSI and SAC, c.795m
 north
- The Naze SSSI, c.3.6km north-east
- Holland Haven Marshes SSSI, c.2.4km south

The Site is located within an SSSI Impact Risk Zone for Hamford Water SSSI; the development does fall under the criteria whereby the Local Authority would be required to consult with Natural England regarding potential risks to the SSSI's. It is not considered the Proposed Development would result in any direct effects on these designated sites, either alone or in combination with other plans or projects.



The site has natural soils of the Windsor Association which are noted as slowly permeable seasonally waterlogged clayey soils mostly with brown subsoils. Some fine loamy over clayey and fine silty over clayey soils and, locally on slopes, clayey soils with only slight seasonal waterlogging. The bedrock geology is described as Thames Group made up of clay, silt and sand sedimentary bedrock.

The Agricultural Land Classification of the soil across the site consists mostly of Grade 3b (92%) agricultural land with a small percentage of Grade 3a (8%) land and is therefore not best and most versatile agricultural land (BMV).

The Site is entirely located within Flood Zone 1 and therefore is of low risk of flooding with a 1 in 1000 annual probability of river or sea flooding.

There are no World Heritage Sites, Scheduled Monuments or Listed Buildings within the application site, nor does the application site lie within a Conservation Area. The closest Listed Building is Hill Farmhouse (reference:1165663) c.40m south of the Site. The closest Scheduled Monument is Martello Tower (ref:1016787) c.2.1km east of the Application Site.

There are a small number of heritage assets in the surrounding landscape. Those present are a cluster of Listed Buildings located within Kirby-le-Soken Conservation Areas c.390m north-west, a cluster within Kirby Cross c.300m south-west and Listed Buildings within Frinton-on-Sea Conservation Area c.1.5km south-east from the Site.

The site does not lie within an Air Quality Management Area (AQMA) and is not within close proximity to an AQMA.



SIDE ELEVATION



SIDE ELEVATION

EV CHARGING STATION ELEVATIONS

PROPOSED DEVELOPMENT

The Proposed Development comprises three main parts. First, an Electric Vehicle (EV) Charging Station. Second, a ground mounted Solar Farm together with all associated equipment and infrastructure. Third, Battery storage.

It is anticipated the delivered capacity of the Solar Farm and Batteries would be up to 29MW (up to 26MWp and 3MW, respectively) producing clean electricity equivalent to the annual electricity consumption of about **6,370** homes.

The inclusion of an EV Charging Station is innovative with only a few other comparable such examples in the country. This element responds to the rapidly increasing take-up of EVs following the Government's ban on the sale of new petrol and diesel cars in 2030, and an identified regional 'gap' in public charging infrastructure.

The EV Charging Station, battery storage and grid connection element of the scheme would be located in the smaller, western part of the site and comprise:

• Construction of a new access off Halstead Road to modern highway standards (Note: This access will also be utilised for the construction and later operation of the battery storage project, electrical sub-station etc as well as public access to the EV Charging Station.



ELECTRIC VEHICLE CHARGING STATION

The public EV Charging Station would comprise:

- A covered forecourt and canopy with sufficient capacity to simultaneously charge up to 12 rapid and ultrarapid chargers with a capacity of 43-350kW (under the translucent, solar canopies);
- A seating/rest area to reflect that EV charging does not require the driver to remain with the car and that even ultra-rapid EV charging results in a "dwell time" of some 15 minutes. Approximately 180m2 of development floorspace is provided for a mix of Use Classes (2020 Use Classes 'E' and 'Sui Generis') for a hub / cafe;
- 19 car parking spaces plus 3 disabled spaces to include 13 fast chargers (c. 22kW);
- Additional 25 car parking spaces (intended to ease school drop off / pick up pressure);
- A Distribution Network Operator (DNO) Switching Station building would be located near to the proposed point of connection. The building would be single storey in height and c.4m (W) x c.10m (L);
- A Client Switching Station building would be located near to the DNO Switching Station building and would also be single storey in height and c.4m (W) x c.10m (L);
- Hardstanding and vehicle manoeuvring space together with pavements for pedestrian use;
- A small outdoor seating / picnic area;
- A small play area; and
- Footpath to connect to adjacent playing fields.



KEY

- - -

Red Line Boundary

Electrical Grid Line (6m buffer)

11kv Circuit (6m buffer)

Access Road

Battery Storage

Electric Vehicle Rapid Charging Hub

Existing Hedgerows

Proposed Planting

Parking

Picnic & Play Area

BATTERY STORAGE STATION

The Battery Station area would comprise:

- 3 battery storage containers (1,000V DC) located to the north of the EV charging station within a fenced compound (for safety and security), each of c. L 40' (12.19m), W 8' (2.44m) and H 8' 6" (2.59m) within which electricity generated by the Solar Farm would be stored in a series of batteries and energy released as/when required to the local electricity grid for an operational phase not less than 40 years. Within the proposed containers large battery cells convert electricity into electrochemical energy that is then stored before being converted back to electricity for export. The batteries proposed will be charged during periods of lower demand and increase the operational flexibility of the proposed Solar Farm;
- Erection of perimeter palisade fencing up to 2.5m in height for reasons of public health and safety;
- Associated access and hard standing within the perimeter fencing; and
- Creation of a site access via the EV Charging Station.

GRID CONNECTION

A grid connection will be made to allow the project to be connected to the local electricity grid. The point of connection is within the site boundary in the smaller parcel of land to the west. The grid connection infrastructure would comprise:

- A Distribution Network Operator (DNO) Switching Station building would be located near to the proposed point of connection. The building would be single storey in height and c.4m (W) x c.10m (L);
- A Client Switching Station building would be located near to the DNO Switching Station building and would also be single storey in height and c.4m (W) x c.10m (L);



SOLAR FARM

The Solar Farm element of the scheme would be located in the larger, eastern area of the site and comprise:

- Photovoltaic (PV) modules based on a simple metal framework ('table') which is pile driven into the ground, avoiding the need for substantive foundations. Each table would have an overall height of up to 2.5m at the highest point depending on existing ground level which would be unaltered having an up to 40-year operational life;
- A number of (5) inverter/transformers, of single storey • height, would be located across the site with there likely being at least one in each field/parcel;
- A CCTV system, using cameras mounted on narrow, • freestanding columns up to 3m in height, within the site boundary (looking inwards) would be installed around the site's perimeter;
- A storage container(s) for spare parts; •

- Boundary fencing (e.g. deer fencing or stock fencing) around the edge of each development parcel, up to 2m in height. Deer fencing will provide the same level of protection as traditional security fencing, but it is more visually appealing. There will be a gap of 10cm at ground level to allow for ecology to freely enter and exit;
- Associated access tracks, a minimum width of 3.5m across the site (connecting inverter/transformer units):
- Relevant communications and weather monitoring equipment;
- Widening existing site access;
- Up to 30m set back / buffer area from the northern • and southern site boundary to the panel area;
- New permissive footpaths to link up and connect • to the public rights of way network both within and outside of the site; and
- Increased set back distance from the solar panels for existing and proposed permissive paths (10m width where the footpath has solar modules on both sides and 5m width where the path is on the edge of the solar array.







ACCESS

A new vehicular access is proposed to be created off Halstead Road to provide access to the smaller, western part of the site which would comprise the EV charging station, battery storage facility and grid connection infrastructure. It is proposed to construct a new priority T-Junction from the western side of Halstead Road to serve the EV charging station. The proposed access will be 6.5 metres wide and will include eight-metre corner radii in order to accommodate the largest vehicles associated with the proposed solar farm and battery storage facility which are low loaders and 15.4 metre articulated HGVs.

The new access will be used by construction vehicles associated with the EV Charging Station and periodic visits by maintenance vehicles as well as providing public access to the EV charging station.

The proposed access junction will be provided with a 2.4 X 90 metre visibility splay, in accordance with DMRB guidance for roads with a 30mph speed limit. This is robust on the basis that Halstead Road is predominantly residential in nature and lesser Manual for Streets (MfS) visibility splays could be applied.

Access to the larger, eastern part of the site would be by way of an existing field access (modified as appropriate). The accesses would be designed for use during both construction and operation. Further landscaping enhancements to the site access are now proposed to provide visual screening for users of the adjacent road and footpath.

LANDSCAPING

The landscape planting and mitigation for the proposed solar farm is intended to enhance both the landscape character and visual amenity of the site and its surroundings. The Proposed Development will seek to retain and enhance existing landscape elements to further integrate the proposals into the surrounding landscape.

The layout of the development ensures there will be minimal works to or loss of the existing trees and hedgerows within the site. Additional landscape planting has been introduced within the site and along the boundary which will also strengthen the landscape character, improve biodiversity of the site and further filter views.

The mitigation measures incorporated into the design include:

- Enhancement of existing landscape features and environmental improvements in terms of additional shrub, hedge and native species planting;
- Grass and wildflower mix will be introduced between the rows of panels to encourage further biodiversity enhancements, as a result of the project modifications additional orchard trees will be included within the scheme as well as additional native species to maximise the biodiversity net gain potential;
- Enhancement of local wildlife through the introduction of wide ecological corridors, bird boxes and insect hotels;
- Existing field boundaries will be retained; and
- Potential natural maintenance of site by grazing sheep, retaining an agricultural use of the land; and
- Construction exclusion zones identified through a detailed tree survey to protect exposed trees during the construction period

CONSIDERATION OF ALTERNATIVES

Schedule 4 (Part 2), of the EIA Regulations requires that the ES contain "A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects".

In accordance with the EIA Regulations the main alternatives studied by The Applicant and an indication of the main reasons for the Proposed Development should be outlined.

The main alternatives to the Proposed Development which the Applicant has studied include:

- Alternative Sites;
- The 'No Development' Alternative; and
- Alternative Designs.

ALTERNATIVE SITES

The selection of the site is based on a number of factors which identify the site as suitable for accommodating a solar/battery storage/EV charging hybrid project. The relative importance of the cost of the grid connection has grown considerably in recent years to become the dominant factor in siting decisions. In this regard, geographical siting flexibility is restricted as a result of the relative lack of such grid connection options and viable alternatives in Tendring District are very scarce. Other factors that determine the suitability of a site for projects like the Halstead Road Eco Hub include:

- Solar irradiation;
- Availability of land (landowner complicity);
- Topography;
- Potential for screening by existing vegetation;
- Location in relation to environmental designations;
- Located on lower grade agricultural land;
- Located on land with a low probability of flooding; and
- Site or adjacent features provide opportunities to improve the ecological value of the site.

The location of the grid connection was the key determinant in the general location of the site. The exact site location was determined by the availability of land, i.e. a landowner willing to enter in to the necessary land agreements. Despite searching for other available sites within the area, The Applicant was unable to secure land elsewhere in the vicinity of the Application Site. The Application Site was therefore taken forward to development given it had access to a viable grid connection (unlike the vast majority of Tendring District) and satisfied all of the selection criteria listed above. It is also important to recognize that targets relating to the deployment of renewable energy are not maxima or "quotas". Rather, renewable energy targets are minima that, if exceeded, continue to accrue provide significant environmental benefits in the form of reduced greenhouse gas emissions. Whilst it is necessary to consider alternative sites, due to the nature of the targets that such sites contribute to, the presence of multiple, viable alternatives does not diminish the value of any individual, appropriate alternative. Specifically, NPPF states that there is no requirement for an applicant to demonstrate overall need for renewable and low carbon energy and LPAs are directed to approve such applications if impacts are (or can be made) acceptable.

THE 'NO DEVELOPMENT' ALTERNATIVE

The 'No Development' Alternative refers to the option of leaving the Application Site in its current use and physical state. Although this option would avoid the potential adverse effects associated with developing greenfield land such as the loss of agricultural land, it would also miss out on the opportunity to provide a new renewable energy development and contribute to sustainable development in accordance with local and national policy.

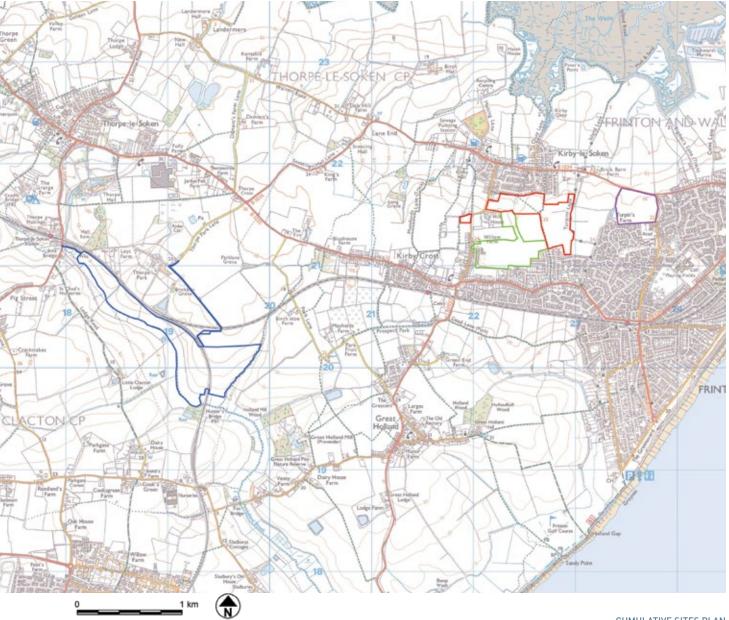
The option of leaving the Application Site in its current form would also miss the opportunity of safeguarding the Green Gap (referred to in the existing and emerging local plan) between Kirby-le-Soken and Kirby Cross (and associated coalescence of these two settlements) from other future forms of permanent development such as housing.

ALTERNATIVE DESIGNS

The Applicant has taken into consideration various environmental constraints in the design of the proposal in order to avoid adverse effects which include:

- Increased setbacks from boundary of the site (solar proposals) to footprint of development leaving up to a 30m buffer area to allow a greater area of separation and more space for planting and screening;
- Specifying native water tolerant trees such as alder, willow and cornus to provide a backdrop to the water body in the south-west area of the solar panels providing beneficial habitats, naturalistic views and forming a visual break between the settlements of Kirby-le-Soken and Kirby Cross.
- Specifying sections and groupings of trees such as Hornbeam and or Beech Hedge and fruit trees to the north of the proposed solar area to 'soften' views of the solar panels while maintaining the open edge of the village characteristics and to fulfil the Green Gap policy of "the open and undeveloped character of the land";PRoW and vegetation screening;

- New planting of hedgerows along sections of permissive paths and PRoW;
- Set back from field boundaries, the introduction of wider biodiversity enhancements;
- Design to reflect existing environment and landscape features by avoiding removal of hedges or trees;
- New permissive footpaths in the solar farm to link up and connect to the wider PRoW network both within and in the vicinity of the site;
- Increased set back distance from the solar panels for existing and proposed permissive paths (10m width where the footpath has solar modules on both sides and 5m width where the path is on the edge of the solar array);
- New permissive footpath from the EV charging station building to connect to adjacent playing fields and create safer walking routes;Additional parking in EV Charging Station area to alleviate traffic/parking constraints associated with school drop off and pick up and periods of high usage of the playing fields;
- Relocating the electric vehicle charging station building from the north of the site further south to leave further separation from residential dwellings.



CUMULATIVE SITES PLAN

CUMULATIVE CONSIDERATIONS

Within EIA, cumulative effects are generally considered to arise from the combination of effects from the Proposed Development and from other proposed or permitted schemes in the vicinity, acting together to generate elevated levels of effects. Examples of these kinds of effects could include traffic generated from developments affecting the surrounding road network; air quality effects from developments; and discharges to the water environment.

Assessment of cumulative effects with other developments which are either operational, under construction / consented or the subject of a full planning application should be considered.

KEY

Site Boundary

21/01860/FUL Thorpe Park Solar Farm, Land South of Thorpe-Le-Soken, Tendring, Essex (In Planning)

16/00031/OUT The erection of 210 dwellings with access from Elm Tree Avenue, including green infrastructure, children's play areas, school drop off and parking facility and other related infrasructure. Turpins Farm, Elm Tree Avenue, Kirkby Le Soken, Essex (Approved)

15/01234/OUT Erection of up to 240 dwellings with a community hub including either a 40-bed space care home (Class C2) or a healthcare facility (Class D1) together with access from Halstead Road Woburn Avenue and Buckfast Avenue; a parking area for up to 30 vehicles; green infrastructure provision including children's play area, kick-about area, footpaths, structural landscaping and biodiversity enhancements; a sustainable drainage system including detention basin and swales and other related infrastructure and services provision. Land East of Halstead Road, Kirby Cross, Frinton on Sea, Essex (Allowed at appeal) TDC's Screening Opinion makes reference to cumulative impact but does state or list consideration of any particular development. A search has been carried out on TDC's website and there are no developments of a similar nature within the immediate area, however, there is a current application for a 30 MW solar farm approximately 3.5km to the south-west (54.95 ha), reference 21/01860/FUL Thorpe Park Solar Farm, Land South of Thorpe-Le-Soken Tendring Essex C016 0HR.

The following applications have also been considered where relevant within each chapter of the ES.

- 15/01234/OUT Land East of Halstead Road Kirby Cross Frinton On Sea Essex CO13 0LR - Erection of up to 240 dwellings with a community hub including either a 40-bed space care home (Class C2) or a healthcare facility (Class D1) together with access from Halstead Road, Woburn Avenue and Buckfast Avenue; a parking area for up to 30 vehicles; green infrastructure provision including children's play area, kick-about area, footpaths, structural landscaping and biodiversity enhancements; a sustainable drainage system including detention basin and swales and other related infrastructure and services provision.
- 16/00031/OUT The erection of up to 210 dwellings with access from Elm Tree Avenue, including green infrastructure, children's play areas, school drop off and parking facility and other related infrastructure.

LANDSCAPE & VISUAL

INTRODUCTION

The Landscape and Visual Impact chapter has considered the potential effects of the Proposed Development on the existing landscape character, landscape components and features, and visual amenity.

BASELINE CONDITIONS

The Application Site and study area are not subject to statutory designation. The nearest designated landscape is Hamford Water LNR approximately 1km to the north.

The Solar Farm Area is contained by settlement in all directions: Kirby Cross to the south and east; Kirby-le-Soken to the north; and properties along Halstead Road which belong to both Kirby Cross and Kirby-le-Soken to the west.

The EV Charging Area is largely hidden within the surrounding settlement. This parcel of land is flat. Along the western boundary stretches a public right of way and vegetation, which separates the land from a playing field. Within the wider landscape to the east and west, the land opens up into farmland.

According to Natural England, the site and study area fall within the National Character Area 111: Northern Thames Basin. On a county level, The Essex Landscape Character Assessment shows the Site is located within the 'Tendring Plain'. At a local scale, the Site is located within the 'Hamford Coastal Slopes' and 'Clacton and the Sokens Clay Plateau.'

LIKELY SIGNIFICANT EFFECTS

The Proposed Development is considered to be in keeping with the general landscape policies outlined in the National Planning Policy Framework (NPPF). In line with local policy, the proposed development has been carefully sited to gain maximum benefit from natural screening provided by landform and mature hedgerows and tree cover. Furthermore, the design of the Proposed Development has been refined following receipt of consultation responses to minimise the height and appearance of the facility. Therefore, in line with local policy, the Proposed Development, which falls within 'countryside', will have only locally limited, temporary but long-term effects (until it is decommissioned) on the landscape and visual amenity.

EFFECTS DURING CONSTRUCTION

Overall, temporary short-term changes to topography, landform, land use, land cover, built form, highways, infrastructure and drainage arising from construction operations would lead to no more than a minor/ negligible significance of effect upon these features and elements.

EFFECTS DURING OPERATION

Operational effects upon landscape and visual receptors would arise from the presence of the solar farm features including the solar arrays, inverters, fencing and access tracks during the 40-year life of the Proposed Development.

Overall, temporary (reversible) but long-term changes to topography, landform, highways, infrastructure and drainage arising from operation of the Proposed Development would lead to no more than a minor/ negligible significance of effect upon these features and elements.

MITIGATION AND ENHANCEMENT

The layout and design of the Proposed Development has been guided by ongoing environmental studies. The Proposed Development takes account of the presence of, and safeguards, existing mature trees and hedgerows and respects the existing field pattern, and any removal of hedge will be replaced in appropriate location near existing hedge to mitigate its loss.

The proposed EV Charging Area is sensitively and efficiently located in proximity to road infrastructure. Proposed underground cables avoid the need for overhead lines. The proposed battery storage containers, DNO sub-station and other structures are limited to single storey and would be surrounded by a combination of 3m tall acoustic fencing, trees, shrubs and other vegetation.

The Application Site incorporates green buffers, providing screening between Kirby-le-Soken and Kirby Cross, which would maintain a separation between settlements from a landscape or visual perspective.

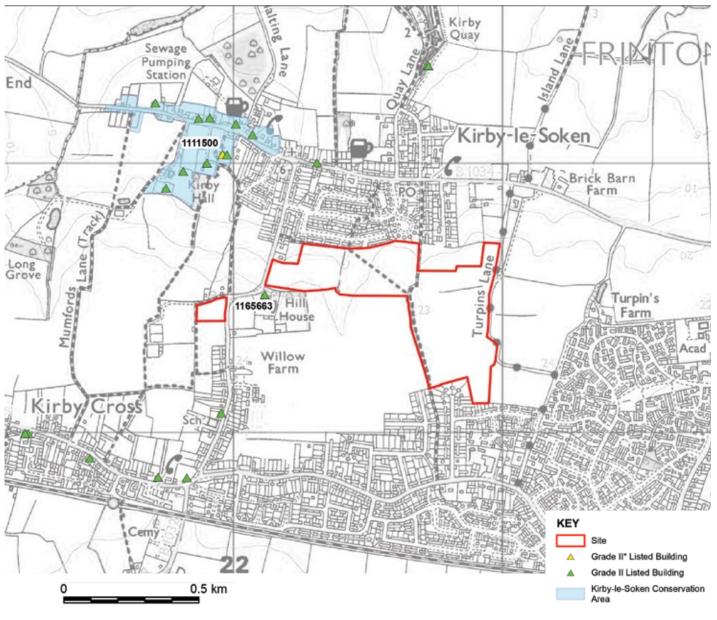
CONCLUSION

The landscape and visual assessments have identified that there would be no significant adverse landscape effects upon the landscape character and the surrounding settlement. Very limited significant residual effects would be experienced by properties in close proximity of the Proposed Development, but these effects would be offset and/or compensated for by the management and maintenance of landscape elements including mature trees and hedgerows and a small, community orchard which would deliver many positive effects over the lifetime of the Proposed Development.

On balance it is considered that Proposed Development could be successfully accommodated within the Application Site and surrounding landscape without unacceptable temporary but long-term residual effects on landscape character or visual amenity as a whole.

Based upon a review of the revised Indicative Site Layout and the landscape Strategy the revisions would not lead to any changes to the outcomes of the original landscape chapter, however, the relatively large increases in the setback distances from the nearest residential properties and the Public Rights of Way and proposed, permissive footpaths that run through the site reduce visual effects at these locations.





DESIGNATED HERITAGE ASSETS

HERITAGE AND ARCHAEOLOGY

INTRODUCTION

The heritage and archaeology assessment considers the likely significant effects of the Proposed Development on the archaeological resource, built heritage and the historic landscape.

BASELINE CONDITIONS

The assessment focussed on the cultural heritage resource of the Site.

Geophysical survey within the site, completed in November 2021, did not identify any anomalies which were definitively archaeological in origin. Activity of prehistoric, Romano-British, medieval and post-medieval date was recorded within the study area within HER datasets. There is no evidence to suggest that activity from these periods took place within the Site.

No designated heritage assets are located within the Site. The Grade II Listed Hill Farmhouse lies c. 35m west of the eastern parcel of the Site and c. 145m east of the western parcel of the Site. This is a designated heritage asset of less than the highest significance. The Grade II* Listed Church of St Michael lies c. 430m north of the Site. This is a designated heritage asset of the highest heritage significance as defined by the NPPF.

LIKELY SIGNIFICANT EFFECTS

Construction within the site would have the potential to physically impact the below-ground archaeology. Archaeological remains present within the Site will be subject to a programme of archaeological recording in accordance with an enforceable planning condition in line with industry standard practices which are proven to be effective, as applicable. The Proposed Development within the site is considered to result in a minor adverse impact (less than substantial harm at the lowermost end of the spectrum) to the heritage significance of the Grade II Listed Hill Farmhouse and no harm to the heritage significance of the Grade II* Listed Church of St Michael. This impact is not considered to be significant in EIA terms.

MITIGATION AND ENHANCEMENT

Previous archaeological works have been undertaken within the Site comprising a desk-based assessment, a site visit and geophysical survey. Archaeological remains present within the site would be subject to a programme of archaeological recording and publication, to be agreed with the local planning authority and implemented, as applicable. Following mitigation, this effect is not considered to be significant.

The proposed heritage-led scheme could be secured (in part at least) though a planning condition which would restrict the form of the development to that shown on the site layout plans.

CONCLUSION

No effects have been identified which are considered significant in EIA terms.

The Proposed Development will not result in any adverse effects on the heritage value of any designated heritage assets as a result of alteration to setting. As such, the proposal will be in keeping with the requirements of the Planning (Listed Building and Conservation Areas) Act 1990, the NPPF, and Local Planning Policy pertaining to the setting of designated heritage assets.

No additional information has been required as part of the SEI to support the Archaeology and Heritage Chapter of the ES, therefore, there are no changes to the outcomes of the original assessment.

CONCLUSION

The findings within the ES for Halstead Road Eco Hub demonstrate that there are no overriding environmental constraints or planning policies which would preclude the development of the application site for an EV charging station, battery storage and solar farm. The Planning Statement which forms a separate part of the planning application demonstrates significant weight for both Planning Policy and Energy Policy which demonstrates the need for and benefits of the scheme. It has been demonstrated within this ES there will be no significant impacts as a result of the proposal.

All aspects of the design have taken full account of the environmental opportunities and constraints present. Retention of agricultural land and, where necessary, mitigation measures and enhancements form an integral part of the proposals to ensure that the environment is suitably protected.

The ES demonstrates how the proposed scheme would bring about significant benefits to the local environment, whilst providing renewable energy generation in a sustainable location.

As a result of the findings of the SEI there are no changes to the overall conclusions of the Environmental Statement it is supporting.





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