By Email to planning@horsham.gov.uk

14 March 2024

Dear Sir/Madam

Request for an Environmental Impact Assessment Screening Opinion Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended)

Proposed Dragon's Green Energy Hub on Land east of Shipley Road, Southwater, Horsham, RH13 9BQ

I write in accordance with the Town & Country (Environmental Impact Assessment) Regulations 2017 (as amended) ("the EIA Regulations"), to request an EIA Screening Opinion to determine whether a proposed Battery Energy Storage System (BESS) ("the Proposed Development") located on land east of Shipley Road, Horsham, RH13 9BQ ("the Site") constitutes EIA development.

The Project is known as the Dragon's Green Energy Hub.

A. Need for the Proposed Development

In October 2021, the UK Government committed within its Net Zero Strategy[1] to fully decarbonise the UK's power system by 2035, a critical component to achieving the overall statutory target of making the UK carbon net zero by 2050 and tackling global warming/climate change.

BESSs are vital components in the UK electricity grid to facilitate this decarbonisation. BESSs enable the electricity transmission network to be resilient and stable as it transitions from being heavily dependent on centralised fossil fuel power stations to large scale renewable energy sources, matching intermittent weather dependent wind and solar energy generation with continuously fluctuating consumer demand.

BESS technology achieves this by storing excess energy available on the power system when supply outstrips the demand, such as at times of high solar irradiance or high winds, for use at a later point in time when the converse happens i.e. demand outstrips supply. At the moment, the system balancing is achieved by turning off (curtailing) renewable energy generation when supply outstrips demand, and turning on high carbon gas-fired power stations when demand outstrips supply.

Curtailing renewable energy use in this way brings with it significant extra costs, as well as wasting highly affordable green energy which results in an increased network carbon footprint when we should be urgently reducing it. For example, curtailing wind power generation in this way led to

[1] Net Zero Strategy: Build Back Greener (October 2021)

energy equivalent to five days' power for the whole of the UK being lost in 2022[2]. Turning on gas fired power stations to make up for this lost energy added £590 million to energy bills and resulted in 1.3 million tonnes of carbon dioxide emissions[3].

The recently issued Overarching National Policy Statement for Energy (NPS EN-1) (December 2023) is the most up to date Government position on energy policy. It states there is a ***"critical national priority (CNP)"*** for the provision of nationally significant low carbon infrastructure and:

> *"the urgent need for CNP Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits, will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy. Government strongly supports the delivery of CNP Infrastructure and it should be progressed as quickly as possible.[4]"*

BESSs are integral to the delivery of this CNP infrastructure. NPS-EN1 advises at paragraphs 3.3.25 and 3.3.26 that:

> *"Storage has a key role to play in achieving net zero and providing flexibility to the energy system, so that high volumes of low carbon power, heat and transport can be integrated. Storage is needed to reduce the costs of the electricity system and increase reliability by storing surplus electricity in times of low demand to provide electricity when demand is higher."*

The Proposed Development, as a BESS facility, will make a direct contribution towards supporting the UK's transition to Net Zero by 2050, and support decarbonisation of the energy power system. The Proposed Development would have the capacity to store and export in the region of 400MW/800MWh of low carbon and renewable energy. This is sufficient energy to provide 24 hours of electricity to power all the homes in Horsham District when fully charged. Furthermore, it is estimated that the Proposed Development would displace the equivalent of 110,000 tonnes of carbon dioxide emissions from gas fired power plants annually, which in turn equates to planting 5 million trees.

B. Submitted Information

The following information is submitted as part of this EIA Screening Opinion Request, as set out in Regulation 6(2) of the EIA Regulations:

1. Draft plans sufficient to identify the location of the Site, identify environmental constraints and opportunities, likely extent of development and use, site access and potential mitigation measures:

[2] Source: Carbon Tracker Initiative

[3] Gone with the Wind, Carbon Tracker Initiative, June 15th 2023 (https://carbontracker.org/britain-wastes-enough-wind-generation-to-power-1-million-homes/)

[4] Paragraph 3.3.63 Overarching National Policy Statement for Energy (EN-1)

Drawing Ref.	Drawing Title
DGP 1.0 Rev 01	Site Location Plan
DGP 2.0 Rev 01	Existing Site Plan
DGP 3.0 Rev 07	Draft Proposed Development Zone Plan
DGP 4.0 Rev 09	Draft Indicative Site Layout Plan
Figure 1328/6a	Draft Landscape and Ecological Mitigation and Enhancement Strategy

2. A description of the Proposed Development, including its physical characteristics location;

3. A description of the aspects of the environment likely to be potentially significantly affected by the Proposed Development, including a description of any likely significant effects resulting from:

    a. the expected residues and emissions and the production of waste, where relevant; and

    b. the use of natural resources, in particular soil, land, water and biodiversity.

In addition this submission explains the proposed approach for the planning application submission.

C. The Application Submission

The Proposed Development to be applied for will be:

> *"The proposed construction, operation and maintenance of a Battery Energy Storage System (BESS) with associated infrastructure and works including highway access, landscaping and biodiversity enhancements".*

Full planning permission will be sought for a temporary time period (40 years) after which all consented electrical infrastructure will be removed and the Site restored to its original use, agriculture.

Design Flexibility

The planning application will follow the Rochdale Envelope approach so as to retain design flexibility at a time when advances in energy storage technology are occurring rapidly. Any selected technology today is likely to have changed by the time the Project is ready to build, and the Rochdale Envelope approach will avoid the need for subsequent amendments to any granted planning permission. Rather the design details can be controlled through the imposition of planning conditions on any permission that require the Council's approval prior to any construction taking place.

The Rochdale Envelope approach involves defining Development Zones rather than having a definite layout. The zones define where certain infrastructure would be located within the Site, whilst having flexibility in terms of design layout of batteries and substation within each zone. The zoning allows for future optimisation of the BESS facility following any grant of planning permission to incorporate most up to date and efficient technology, the latest safety regulations etc. The Development Zones plan would be an approved planning drawing in the event consent is granted.

Worst case design parameters (which will overstate the likely actual impact) will be adopted as part of a robust environmental impact assessment of the Proposed Development. For example, the battery cabinets and inverter/transformer units will be assessed at a maximum height of 3m when in reality they will be lower, and the substation is proposed to be assessed at 14m when in reality it is more likely to be 13.5m. An indicative site layout plan would be provided for information as well as indicative elevations of proposed infrastructure. If consented, the Proposed Development would not be allowed to exceed these stated design maximums, and no construction would be permitted to start on Site until the Council had approved detailed layout and elevation drawings.

Provided as part of this EIA Screening Request are the current working version of the Development Zones Plan, an example indicative Site Layout and the emerging Landscape and Ecological Mitigation and Enhancement Strategy (LEMES). In the event planning permission is granted the Development Zones Plan, Landscape and Ecological Mitigation and Enhancement Strategy would be the only plans approved with the final detailed electrical infrastructure layout and elevations secured by planning condition[5].

Appendix A to this letter identifies the planning documentation proposed to accompany the application, pending the Council's consideration of this EIA Screening Request.

D. The Proposed Development

The Proposed Development will include the following key components which will form the basis of the impact assessments:

- Battery racks and skids, no higher than 3m AoD, positioned (where ever possible) on sustainable construction materials such as cem free concrete and/or recycled steel, with gravel between the racks;
- Inverter units and transformers, no higher than 3m AoD, positioned (where ever possible) on sustainable construction materials such as cem free concrete and/or recycled steel, with gravel around them;
- Substation and switchgear compound (gravel and concrete footings), the highest point of which would be 14m AoD;
- Security fencing, gates and CCTV/infrared , no higher than 2.5m AoD, to be positioned around the electrical infrastructure;
- Internal access roads (rolled aggregate, secondary aggregate where possible);
- Two separate vehicle access points from Shipley Lane, one access forming the main construction and operational access and the other a secondary access for fire fighting vehicles in the unlikely event of an incident at the BESS;
- Surface water drainage provisions (SuDS):

[5] Examples of the Rochdale Approach being used are plentiful. Two examples relating to solar and BESS are: Shropshire Council Application Ref: 22/03068/FUL for solar and BESS facility, approved Nov 2022 and Buckinghamshire Council Application Ref: 21/02821/APP for solar and battery units, approved March 2022.

- Earthworks to create the necessary flat platforms for the electrical infrastructure; and
- Planting to provide screening, landscape character and wildlife mitigation and enhancement, including the mandatory biodiversity net gain of 10%.

Underground cables will connect the BESS to the existing overhead line between the pylons located within the Site. This will be the Point of Connection (POC).

There will be no external lighting of the Proposed Development, and as such no Lighting Assessment is necessary to accompany the Application.

Whilst design is still progressing it is anticipated that approximately 30% (5ha) of the Site will contain electrical and access infrastructure, with 66% (11ha) containing landscape, wildlife habitat and species enhancements to ensure effective visual screening, landscape treatment, site drainage and biodiversity net gain.

Construction of the Proposed Development is expected to take place over 15 months. Earthworks will be undertaken to create the level platforms necessary for the BESS infrastructure, with Tree Root Protection Zones ensuring sufficient buffer to protect the mature on-site trees.

On average it is anticipated there will be 2 HGVs travelling to the Site per day. All construction vehicles will access the Site via an improved existing agricultural access located on Shipley Lane. The access will be improved to ensure it is safe and fit for purpose.

Construction activities and deliveries will be carried out Monday to Friday 08:00-18:00 and between 08:00 and 13:30 on Saturdays. No construction activities or deliveries will occur on Sunday or Public Holidays.

During operation, maintenance vehicles (typically a transit size van) will access the Site once every couple of weeks via the improved access created during the construction phase.

At the end of the 40 year operational period, the Proposed Development would be decommissioned, and the Site returned to agricultural use. This would be secured by way of a planning condition on any issued planning permission.

E. The Site

The Site is located in the Knepp Wildland, an area of low-intensity farming and rewilding in the West Sussex Low Weald. It is not within a protected landscape designation. It is located approximately 10km south west of Horsham, 2.5 km south of the village of Southwater and 1km east of Dragon's Green village. In the context of the local highway network, the Site is located to the east of Shipley Road and approximately 700m to the north of the A272.

The Site measures 17.3ha and is currently used for regenerative livestock grazing with interrupted treelines running along several former field boundaries within the Site. The Knepp Mill Stream runs

across the northern edge of the Site, cuts through its eastern side and then flows southwards into the River Adur 2.3 km south of the Site. Existing electricity pylons run east to west across the Site.

The soils across and surrounding the Site are characterised as loamy and clayey, with moderate fertility and impeded drainage (Cranfield Soil and Agrifood Institute – Soilscapes Map 2023). This has been confirmed by the Agricultural Land Classification survey undertaken at the Site which grades the land as Grade 3b (not best and most versatile agricultural land).

The Site sits across a relatively flat part of the Low Weald, with the lowest parts along the stream at the northern and eastern edges of the Site. A slight ridge runs east/west through the northern part of the Site at a maximum height of 24 m aOD, dropping to and around 18 m aOD across the rest of the Site.

There are no designated heritage assets within or in the immediate proximity of the Site. There is one Grade II Registered Park and Garden (Knepp Castle (NHLE 1000519) located 375m south of the Site, as well as six Grade II Listed Buildings consisting of post-medieval rural dwellings between 435 and 975m from the Site, dispersed across the surrounding farmland.

There are no designated ecological assets within the Site. Surrounding the Site on three sides are copses identified as Ancient Woodland. To the north-west, Hartsgravel Wood is defined as Ancient and Semi-Natural Woodland. To the north-east, Alder Copse is defined as Ancient Replanted Woodland and to the southeast, part of Little Cockshill Wood have been identified as both Ancient and Semi-Natural and Ancient Replanted Woodland. The south west corner of the Site is surrounded by Great Cockshill Wood. None of these woodlands will be impacted directly by the Proposed Development due to the designed in buffer distances from the edge of the trees to the proposed security fence. Beyond these woodlands are agricultural fields.

A Public Right of Way footpath (Number 2803) follows the woodland edge to the north of the Site. The route of this footpath is outside of the Site and will not be moved or closed either temporarily or permanently.

The nearest residential dwelling is Old Keppers Cottage 150m east of the Site. Cuckoo Barn is located 250m south of the Site and Goffsland Farm Caravan and Camping site is located 385m north.

The Site is in Flood Zone 1, 2 and 3 with no electrical infrastructure or other infrastructure such as fencing, located in Flood Zones 2 and 3. The Flood Zone 2/3 land is proposed to be used for planting and wildlife benefits.

The West Sussex Joint Minerals Local Plan indicates that the Site may be located within a Brick Clay Resource Mineral Safeguarding Area

F. EIA Regulations and Screening

An EIA will be required to support a planning application if the Proposed Development constitutes EIA development by either being:

- Schedule 1 development - whereby EIA is mandatory in all cases; or
- Schedule 2 development – whereby the Proposed Development exceeds the size threshold for that class of development, or is located within a sensitive area as defined by the EIA Regulations, ***AND*** is likely to have significant effects on the environment by virtue of its characteristics, location and nature of potential impact.

The Proposed Development does not fall within the description of development listed in Schedule 1 of the EIA Regulations and would not be classified as Schedule 1 development.

With respect to Schedule 2 development, the Proposed Development is not located in a sensitive area as defined by the EIA Regulations. In terms of the relevant class of development, the Proposed Development is considered to fall under Schedule 2 Part 3 (a) *"Industrial installations for the production of electricity, steam and hot water"* of the EIA Regulations. The size threshold for this type of development is 0.5ha. As the Site measures 12.5ha the Proposed Development would exceed the threshold and therefore constitutes Schedule 2 Development.

Importantly, however, Schedule 2 developments do not automatically trigger the undertaking of EIA. EIA is ***only*** required where the proposals are likely to have ***significant effects*** on the environment. The online Planning Practice Guidance (PPG) explains *that "only a very small proportion of Schedule 2 development will require an EIA"* (Paragraph 018). The potential environmental impacts of the Proposed Development are considered below.

G. Potential Environmental Impacts of the Proposals

It is considered that the following topics require to be evaluated so as to assess the potential for likely significant effects arising from the Proposed Development:

- Landscape and Visual Resources;
- Ecology and Nature Conservation;
- Heritage and Archaeology;
- Transport and Access;
- Arboricultural;
- Hydrology and Flood Risk;
- Air Quality and Climate;
- Noise and Vibration;
- Socio-economics and Community Effects;
- Land use and Land Grade;
- Accidents and Disasters;
- Human Health; and
- Interrelationships and Cumulative Effects.

1.Landscape and Visual Resources

The Site does not fall within a landscape "sensitive area" as defined by the EIA Regulations.

The Site lies in the G4: Southwater and Shipley Wooded Farmlands character area (Horsham District Landscape Character Assessment, 2003). This character area comprises a gently undulating landscape with small streams and a strong parkland influence. It has an enclosed character, due to the presence of woodland, and there is a prevailing sense of remoteness away from the routes of the A24 and A272.

Preliminary fieldwork indicates that the visibility of the Proposed Development will be very localised, with potential landscape and visual effects limited to those occurring within a 0.7 km radius of the Site. Within this 0.7 km radius, views from the north-west, north, north-east, south-east and south-west will be limited by existing tree and woodland vegetation. As such, the only areas from which the Proposed Development is likely to be visible are: localised sections of the PRoW network immediately to the north and west of the Site; the area of undulating land extending between the southern site boundary and the A272 to the south, with glimpsed views also possibly occurring from the A272 in the winter months; and glimpsed views also possibly occurring from the local lane (Shipley Road) aligning the western site boundary.

In landscape terms, the Proposed Development would not appear out of character in the context of existing pylons and overhead power lines that cross the Site and the wider landscape to the west and east. There is also the potential for landscape mitigation measures that reflect the low-intensity farming and rewilding land management practices of the wider Knepp Wildland, whilst also improving the wooded and treed character of the area and connecting various elements of existing green infrastructure in the wider surrounding landscape.

In terms of views, the Proposed Development (where visible) would not appear out of character in the context of views towards existing energy infrastructure already present in the Site and the surrounding landscape. Furthermore, the emerging Landscape and Ecological Mitigation and Management Strategy (LEMES) (see provided Figure 1328/6a) shows the potential for well-considered landscape mitigation measures that will further reduce views towards the Proposed Development.

The planning application will be accompanied by a Landscape and Visual Impact Assessment (LVIA) report. Suggested visual receptors (and the proposed viewpoint photo locations) are shown on Landscape Visual Figures 1328/5a and 5b (enclosed) ***and listed below for agreement with the Council***:

1. Footpath 2802 near north edge of the Site (viewpoint location 1) – exact location to be confirmed following further site work);
2. Footpath 2803 near north edge of the Site (viewpoint location 2) – exact location to be confirmed following further site work);
3. Footpath 2803 near north edge of the Site (viewpoint location 3) – exact location to be confirmed following further site work);
4. Footpath 2803 near north edge of the Site (viewpoint location 4) – exact location to be confirmed following further site work);
5. Eastern end of footpath 2803 within the Site (viewpoint location 5);
6. Western end of 'As Walked' Footpath 2803 in the north-west Site corner (viewpoint location 6);

7. Western verge of Shipley Road bridge, adjacent to north-west Site corner (viewpoint location 7);
8. Middle-distance view towards the Site from Footpath 1957 (viewpoint location 8);
9. Middle-distance view towards the Site from Footpath 1957 (viewpoint location 9); and
10. Field gate on western verge of Shipley Road adjacent to western site boundary (viewpoint location 10)

The draft enclosed LEMES showing the proposed screen planting/biodiversity measures will accompany the Application, together with a combined landscape and habitat management and monitoring plan (LHMMP). It is envisaged that these will be secured through the imposition of appropriate planning conditions in event consent is granted. ***We request confirmation that a combined LHMMP is acceptable to the Council to ensure both landscape and habitat management and monitoring is provided for without the duplication and potential confusion created if these needed to be separate documents.***

The nature of the existing landscape and its wider landscape context means that the Proposed Development (as described above), together with the proposed landscape mitigation planting, is not likely to result in wide ranging significant adverse landscape and visual impacts on the wider landscape and visual amenity. There is likely to be some localised significant change on the PRoW passing through the north of the Site, however this will be minimised through sensitive landscape mitigation measures.

2. Ecology and Nature Conservation

A preliminary ecological appraisal has been undertaken and the follow-up species surveys considered necessary have also been completed. Together these will inform the ecological baseline for the detailed ecological impact assessment of the Proposed Development which will accompany the application.

In 2023 the fields support grassland with small areas of regenerating scattered scrub. This has been assessed as being modified grassland. The Site is bound to the west by well-established hedgerows with trees, to the north and south by broad-leaved woodland (part of which is ancient woodland) and to the east by further areas of grassland and scrub. The hedgerows and woodlands qualify as priority habitat.

Direct surveys of three ponds within 250m of the Site for great crested newts returned negative results via DNA testing. One pond (located 20m south of the south-western corner of the Site) initially returned a positive result but during follow up surveys no newts were recorded, a second eDNA test returned a negative result. The species is therefore likely to be absent from the Site. The on-site and boundary habitats may support a limited range of species including bats and reptiles, but direct survey work is not considered necessary given the condition and extent of habitats, and the likely impacts from the Proposed Development.

The breeding bird surveys recorded good densities of woodland and ubiquitous species on the margins of the Site but the main part of the Site did not support species typical of open habitats, such as skylark, likely due to the grazing regime creating a short sward and the scattered trees and scrub.

The scheme will not require protected species mitigation licensing, and precautionary mitigation for species impacts can be readily deployed for species present or likely to be present, such as nesting birds.

There are no sites with statutory nature conservation protection within 2km, but the northern part of the Site is adjacent to the Horsham Common, Alder Copse, Coate's Furzefield & Constable's Furze Local Wildlife Site (LWS). This site is designated for its diverse woodland, including ancient woodland. None of the woodland within the LWS will be directly affected and the Proposed Development is set back to enable a habitat buffer to be provided as part of the layout design. No adverse impacts on the LWS is considered likely to occur.

Two further LWS are located within 2 km of the Site. The closest is Knepmill Pond, the River Adur and Lancing Brook LWS. This is linked hydrologically to the Site as the small stream in the east of the Site flows south to this LWS into Knepmill Pond. The third site, The Downs Link, Nutham Woods & Greatseeds Farm LWS is located approximately 1.8km to the north-east. No adverse impacts to these LWSs are anticipated.

The Proposed Development will result in the loss of a portion of the grassland within the Site and some scattered standard trees of low ecological value. No or only very limited hedgerow loss will occur as a result of the creation of the two access points. Ecological enhancement of the retained areas of grassland is being proposed to deliver an overall net gain in biodiversity value. Draft proposals are set out on the enclosed LEMES and would successfully deliver the mandatory 10% biodiversity net gain. A draft Biodiversity Gain Plan will accompany the Planning Application, together with a combined Landscape and Habita Management and Monitoring Plan (LHMMP) (if acceptable to the Council).

In terms of protected species, the scheme is likely to have negligible results on protected and notable species, given the likely value of the short grassland present and the proposed enhancements. The Proposed Development will not sever potential commuting routes for woodland bats and no roost sites are likely to be adversely affected due to the standoff zones from adjacent woodland habitat and the absence of permanent lighting.

Overall, the Proposed Development is not likely to give rise to significant environmental effects, and would deliver biodiversity gain.

An Arboricultural Impact Assessment will also accompany the Planning Application.

3. Heritage and Archaeology

There are no designated heritage assets within or in the immediate proximity of the Site, however, there is one Grade II Registered Park and Garden as well as six Grade II Listed Buildings within the 1 km Study Area. The Site is surrounded on three sides by copses identified as Ancient Woodland. While Ancient Woodland is primarily an ecological designation, it informs our understanding of the historic landscape character.

The Site lies outside of the immediate rural context of five of these Listed Buildings (NHLE 1026919, 1026925, 1026926, 1026927, 1026961) and has no intervisibility with them, due in large part to the dense screening surrounding it on most sides in addition to the natural topography of the surrounding

area. There are also no direct historical connections between these assets and the Site. Consequently, the Site does not form a meaningful part of their setting and does not contribute to any of the interests from which their significance is derived or to the ability to appreciate those interests.

The sixth Listed Building within the Study Area is Pondtail Farm (NHLE 1285265, WSHER MWS12878), a 17th century farmstead with likely medieval origin, located 670 m south-east of the Site. Although there is a likely historical link between Pondtail Farm and Site, through the ownership highlighted in the 1847 Shipley parish tithe apportionment, the Site is located at a substantial distance from the farm, with no intervisibility and no shared thoroughfare or usage. Pondtail Farm is no longer in use as a farm and the outfarm which provided the primary potential link between Pondtail Farm and the Site no longer exists above ground. Consequently, the Site does not form a meaningful part of its setting and does not contribute to any of the interests from which its significance is derived or to the ability to appreciate those interests.

The Grade II Registered Park and Garden (NHLE 1000519) lies 388 m south of the Site, on the opposite side of West Chillington Lane (A272). It covers the pleasure grounds and park on the 19th century estate, designed by John Nash. Its significance is primarily derived from its historic and artistic interest. The interest in the Registered Park and Garden is primarily internal and the external surroundings (setting) make little if any contribution to its significance.

Cuckoo Barn (WSHER MWS9985) (see Figure 1 below) is a group of two historic buildings located 150m south of the Site, within the same field, on the low hill between the Site and the Knepp Castle Registered Park and Garden. This 19th century outfarm, although not a designated heritage asset, has significance due to its architectural and historic interest. Although the Proposed Development would represent a change in Cuckoo Barn's setting, it would not harm its significance by reducing the ability to appreciate its architectural or historic interest. The dispersed tree line which currently filters views from the asset into the main area of the Site is to be retained under the proposals . The Proposed Development would also have no impact on Cuckoo Barn's significance through an impact on its archaeological interest, which is contained within its immediate location.

The current known archaeological record is limited to those heritage assets identified through their standing remains and through historic mapping. Within the Site, this includes the former field boundaries known to be present since at least the mid-19th century and the remains of the outfarm (Mitchell's Barn) in the centre/north-west of the Site (WSHER MWS12813) (see Figure 1 below). The outfarm was formed of an access track, a pond and at least two phases of buildings and yards. This desk-based assessment has not identified any likely potential for any further archaeological features to be present within the Site. However, it is not clear to what extent the archaeological understanding of the Study Area is limited by a lack of modern archaeological investigations.

The Proposed Development will not impact upon the alluvial deposits associated with the Knepp Mill Stream, however, built infrastructure is proposed across the area of the former outfarm, Mitchell's Barn. Any ground disturbance in this area would likely encounter archaeological remains of various phases of the former structures. These sources of ground disturbance could result in the partial or total loss of significance of any archaeological resources present at the site of the former outfarm or elsewhere within the Site. This potential adverse effect could be mitigated through the implementation of an appropriate scheme of archaeological works, leading to preservation by record.

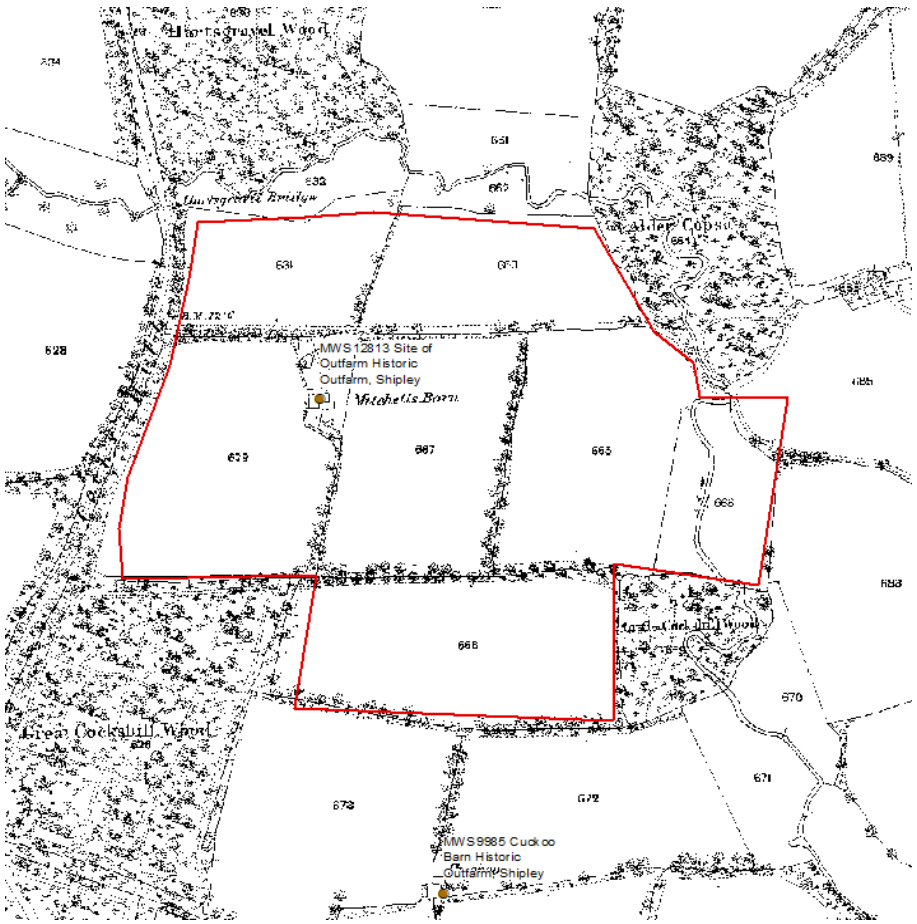


Figure 1: Location of Cuckoo Barn and Mitchell's Barn 1875 edition OS 25-inch map

Overall it is anticipated that impacts on above and below ground heritage assets are unlikely to be significant in EIA terms. It is proposed that an Heritage Desk Based Assessment will accompany the Planning Application.

4. Transport and Access

The Site will be accessed from Shipley Road utilising an improved farm access, with a secondary, emergency access created off Shipley Road for fire fighting vehicles in the unlikely event of an incident. Access drawings, a Transport Statement and Construction Traffic Management Plan (CTMP) will accompany the Application.

Construction vehicles will route to the Site via the A24, A272 and Shipley Road. Shipley Road operates in a north-west alignment. It is a single carriageway road with central line markings. Speed surveys indicate that the 85th percentile speed of vehicles on Shipley Road within the vicinity of the Site is 48mph. Shipley Road connects to the A272 approximately 500m to the south of the Site access. The

A272 is also a single carriageway road with central line marking. From here, the A24, a dual carriageway road which connects to the M25, is approximately 1.5km to the east.

The proposed construction vehicle route is considered to provide the most direct and appropriate route from the strategic highway network to the Site. There are no posted weight or height restrictions along the route described above.

There will be temporary traffic generated by the construction of the Proposed Development which will be spread out over a 15 month period. Over the construction phase, an average of up to 2 HGVs will travel to the Site per day. In addition, it is expected that an average peak daily workforce of around 20 personnel will be required on site at any one time. Shifts will be co-ordinated to avoid peak hour travel. Appropriate parking will be provided on-Site. Car sharing and/or minibus arrangements will be promoted for construction workers' travel to Site. An area for a temporary construction storage compound will be provided within the Site, allowing on-site staff / visitor parking, and turning space for delivery vehicles.

Overall, the level of traffic forecast during the temporary construction phase is low and it is concluded that it will not have a material impact on the safety or operation of the local highway network.

Once operational the Proposed Development would be unmanned and only require limited vehicle movements for routine maintenance by the Site operatives. Therefore, from the above trip generation analysis information, it is not anticipated there will be any significant vehicular impact resulting from the construction of the proposed BESS.

5. Arboriculture

The Proposed Development is not located in a Conservation Area and there are no trees protected by a Tree Preservation Order (TPO) located in the area of the Proposed Development. As such, there are no Statutory restrictions in place that would otherwise restrict the removal of individual trees from within the Site.

The design of the Proposed Development has been informed by a detailed tree survey that was undertaken in accordance with BS5837:2012. Subsequent advice and guidance on the arboricultural constraints present has been provided to the project team. Further assessment of the arboricultural impact will be undertaken through the production of an Arboricultural Impact Assessment (AIA) that will accompany the application. If necessary, an Arboricultural Method Statement (AMS) will also be prepared.

The vast majority of the Site's arboricultural resource was identified as being of high (category A in BS5837:2012) or moderate quality (category B in BS5837:2012) and therefore desirable for retention.

The most important arboricultural features at the Site are the parcels of mature woodland, mostly populated by mature mixed native broadleaf species such English oak, hornbeam, hazel and field

maple. These are Hartsgravel Wood, Little Cockshill Wood, and Alder Copse and they have all either Ancient Semi-Natural Woodland (ASNW) or Ancient Replanted Woodland (ARW).

No significant tree loss will be required or is anticipated. All ancient woodland and high value trees will be retained. Appropriate buffers to Ancient Woodland shall be provided and respected by the Proposed Development. All trees worthy of retention shall be retained except for some minor potential tree loss to create the site accesses. Some retained trees will be within the development area but their Root Protection Areas (RPAs) shall be respected with no works within them.

Should any excavation be required within RPAs of retained trees this will be carried out using hand digging in accordance with any approved AMS or guidance set out in Street Works (2007) Volume 4: Street Works UK Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2), British Standard 3998:2010 Tree Work - Recommendations and British Standard 5837:2012 'Trees in relation to design, demolition and construction. Recommendations'.

Following the approach set out above during development design and construction will enable any adverse impact to trees to be avoided and minimised. Residual impacts to trees are therefore assessed as being negligible and therefore not significant.

6. Hydrology and Flood Risk

From examination of the Environment Agency flood zone mapping, it is confirmed that the majority of the Site is situated in Flood Zone 1 (low risk), whilst the northern and eastern boundaries are located in Flood Zones 2 and 3 (medium and high risk, respectively). However, the proposed infrastructure will be located in Flood Zone 1 and has a 'low' risk of flooding from rivers and the sea, both now and over the lifetime of the development. Essential infrastructure is 'appropriate' in Flood Zone 1 and the Sequential and Exception Tests are not required.

According to the EA's surface water flood mapping, the majority of the Site has a very low surface water flood risk (less than 0.1% annual probability), although parts of the Site has up to a high surface water flood risk (greater than 3.3% annual probability). The Proposed Development has been excluded from the areas at risk of surface water flooding as much as practicable and any development located within the low surface water flood extent (between 0.1% and 1% annual probability) will be raised above the estimated depths.

The Site has up to a high groundwater vulnerability risk; however, with the implementation of the drainage strategy and suitable mitigation against contamination from a potential battery fire (with an impermeable membrane and penstock), it is considered unlikely that the groundwater would be at risk from contamination as a result of the Proposed Development.

British Geological Survey (BGS) data indicates that the majority of the Site is not underlain by any superficial geology, except the northern boundary and eastern part of the site which comprises superficial deposits of Alluvium – clay, silt sand and gravel. The bedrock geology for the majority of the Site is indicated as Weald Clay Formation – mudstone and the bedrock geology for the centre of

the Site is indicated as Weald Clay Formation – sandstone. Soakaway testing at the Site indicated that groundwater was encountered at 2.9 metres below ground level. All of the testing in the four trial pits failed to reach 25% effective depth and, therefore, infiltration-based SuDS features are not feasible for the Site.

The drainage strategy therefore comprises conveyance of the Site run-off to a layer of crushed granular sub-base beneath the development areas with subsequent discharge to the watercourse along the northern and eastern boundaries at a restricted rate equivalent to the Qbar Greenfield run-off rate.

The proposed infrastructure will be located above a layer of permeable crushed aggregate lined with an impermeable membrane, which will discharge into watercourse surrounding the Site. The access tracks around the compound areas are also to comprise permeable aggregate, to discharge to the piped system.

The granular sub-base is to be designed to accommodate the critical 1% probability (1 in 100 year) Annual Exceedance Event with a 20% allowance for climate change. The use of permeable stone surfacing and access tracks combined with restricted discharge rate to the Qbar Greenfield run-off rate will reduce the flood risk downstream of the Site and provide water quality benefits to the receiving watercourse.

The proposed drainage strategy will be designed to prevent the discharge of runoff from the Site that might be contaminated as a result of extinguishing a battery fire. This will include a penstock on the outlets from the granular sub-base and an impermeable membrane beneath the granular sub-base. In the event of a fire, the penstocks would be closed until any contaminated water has been removed and appropriately disposed of.

The above will be set out in detail in the Flood Risk Assessment and Drainage Strategy accompanying the application. It is therefore unlikely that there would be significant flood risks arising from the Proposals.

7. Air Quality and Climate

The Site is not located within an Air Quality Management Area (AQMA). The nearest AQMA is in Cowfold, 6km to the east of the Site.

Whilst the Proposed Development would constitute a Major Development, the nature of the proposals (including no operational air emissions and low transport emissions (see section 4. above) and the distance from the AQMA, indicates that an air quality assessment is not required[6]. Construction dust emissions will be addressed within a Construction Environmental Management Plan, in the event planning permission is granted. *We would welcome the views of the air quality officer on this matter.*

[6] Air Quality and emissions mitigation guidance for Sussex (2021)

Impacts to air quality will to be limited to dust and vehicle emissions generated by the construction and decommissioning activities. Dust would be effectively controlled through standard best practice measures and it is anticipated that any planning permission granted would contain a planning condition requiring the submission and approval of a Construction Environmental Management Plan (CEMP) prior to construction commencing.

In terms of vehicle emissions, guidance from Environmental Protection UK (EPUK) states that construction traffic impacts on air quality are likely to require assessment for large, long-term construction sites that would generate large heavy goods vehicles (HGV) flows (more than 200 movements per day) over a period of a year or more. The Proposals would not fall into this category, being significantly less at one or two per day on average. There are no other activities during the construction phase that are likely to give rise to significant air quality and climate change effects.

During the operation phase, the Site would be largely unmanned with occasional routine maintenance visits (not exceeding one to two visits per week). It is not anticipated that these visits would generate significant effects on traffic emissions or air quality. The Proposals itself would not generate any emissions during its operation and therefore would not impact on local air quality.

Therefore overall significant effects to air quality and climate would not occur.

8. Noise and Vibration

The Proposed Development would generate some temporary noise during the construction phase, associated with construction vehicle movements to and from the Site as well as onsite activities. The construction traffic generated will be limited and managed in accordance with an approved detailed Construction Traffic Management Plan (CTMP). Noise and vibration from construction works would be controlled through the implementation of a Construction Environmental Management Plan (CEMP) as referred to above in the Air Quality and Climate section. As such, noise and vibration from the construction phase of the Proposals is anticipated to be not significant.

It is not expected that there would be any significant vibration effects from the operation of the Proposed Development.

Operational noise generated by the Proposed Development would be limited and associated with low-level noise from the cooling systems associated with the electrical infrastructure onsite. An assessment has been carried out of the potential operational noise effects from the Proposed Development.

The assessment is based on British Standard 4142:2014+A1:2019, “Methods for rating and assessing industrial and commercial sound”. The potential noise is considered in the context of the surrounding area and in comparison, with current ambient noise levels. The noise assessment is based on manufacturer’s noise data for the proposed equipment and a baseline noise survey which has already been carried out at positions representative of the nearest residential properties. The baseline noise

survey was carried out between the 8th June and 15th June 2023 at 3 positions, using unattended Class 1 logging sound level meters (see Figure 2 below). The background sound environment at the receptors is maintained by road traffic noise from the surrounding road network.



Figure 2: Locations of Baseline Noise Survey receptors

A Noise Impact Assessment will be completed which will assess all proposed mechanical and electrical plant which will form part of the proposal at the operational phase of the Proposed Development. The Assessment will be informed by manufacturer-supplied noise level data for all proposed plant and the Assessment will utilise noise modelling software to accurately predict noise impacts at the closest residential dwellings to the proposal. If any noise exceedances are predicted, appropriate noise mitigation measures, such as strategically placed noise barrier or reduction of noise levels at source, will be implemented to ensure that the predicted noise levels do not exceed the respective noise criteria at the residential dwellings.

The Proposed Development is not expected to introduce significant vehicle movements, during its operational phase, on the local surrounding road network and as such, any surrounding residential dwellings are not expected to be exposed to significant changes in road traffic noise levels.

In summary, the operational noise impact of the Proposed Development will be of a 'low impact' in BS4142-terms. Operational noise from the Proposed Development is therefore anticipated not to be significant.

9. Socio-economics and Community effects

Some temporary employment would be generated during the construction phase of the Proposed Development which may result in a beneficial effect to the local economy. However, due to its small scale nature this effect is considered unlikely to be significant.

The construction of the Proposed Development would not lead to the closure of rerouting of any PRoW and the experience of PRoW users will be similar as that which exists around the other established electricity infrastructure in the area. Planting will be undertaken to screen the Proposed Development from footpath users and, as such, effects to PRoW as a community resource are considered to be not significant.

During operation the Proposed Development would be largely unmanned and therefore would not generate a significant long-term source of employment. Significant operational employment effects are not therefore considered likely. PRoW would remain unaffected during the operation of the Proposals and as a result significant effects to community resources are not anticipated.

The Proposed Development would support farm diversification. But more importantly for the Knepp Estate, the Proposed Development is considered to be vital for the balancing of renewable energy supply and demand, and the landowner is committed to providing a relatively small amount of land for this purpose, alongside its much bigger rewilding project. The Estate has also been involved in designing the site layout and Landscape and Ecological Mitigation and Enhancement Strategy (LEMES) to ensure that it is compatible its rewilding ethos, nature conservation and regenerative farming practices. project and the long-term stewardship of the land.

10. Land Grade

The Site is presently in pastural farming use. An Agricultural Land Classification (ALC) Survey has been conducted for the Site and will be submitted with the planning application. The DEFRA Agricultural Land Classification Maps classifies the Site as Grade 3, and the ALC Survey confirms the land to be Grade 3b which is not Berst and Most Versatile Land. Opportunities to include low intensity grazing within the proposed new habitat areas, both as a means of managing the habitats and retaining land in agricultural use, are being explored.

Overall, the effects to agriculture are considered unlikely to be significant.

11. Accidents and Disasters

All materials at the Site would comply with the relevant standards, regulations and guidance from the Health and Safety Executive. Fire protection equipment, and suitable fire alarm systems would be adopted at the Site, which would be regularly serviced and logged and accompanied by appropriate fire notices. It is not anticipated that the Proposed Development would generate a significant fire risk.

A Battery Safety Standards report will accompany the planning application submission, together with a plan demonstrating compliance with the National Fire Chief Council's design guidance. Pre-application engagement with the Fire and Rescue Service is in progress and will be reported in the Planning Application submission.

12. Human Health

Due to the nature of the Proposed Development and the information set out under each of the environmental topics within this letter, potential effects on human health are considered to be limited and not significant.

13. Interrelationships and cumulative effects

Schedule 3 of the EIA Regulations 2017, as amended, states that the characteristics of the Proposed Development must be considered with particular regard to, amongst other things, the cumulation with other existing development and/or approved developments.

From a review of the Council's Planning Portal it does not appear that there are any relevant proposed or consented developments to be considered in a cumulative impact assessment. As such it is concluded there will be no significant cumulative impacts as a result of the Proposed Development.

We request that the Council advises on any cumulative development it considers ought to be assessed within the Planning Application submission.

H. EIA Screening Summary

It is considered that the Proposed Development constitutes Schedule 2 development as a result of its size only. It is not located in a sensitive area as defined by the EIA Regs.

The Proposed Development is not located within or affects the setting of any statutorily designated ecological or landscape areas. Nor does it affect directly or indirectly the setting of designated heritage assets. Furthermore, the scale of the Proposed Development, its temporary nature and the potential environmental and cumulative impacts have been shown to be neither complex nor significant enough to warrant an EIA.

In the circumstances, the Proposed Development is not considered to constitute EIA development and as such we invite the Council to confirm in its Screening Opinion that an EIA is not required.

We trust you have sufficient information to determine this request under the EIA Regulations. We look forward to receiving the Council's EIA Screening Opinion including confirmation that:

- The Council is content for design flexibility to be built into the environmental assessment of the proposals through the adoption of maximum design parameters including the Development Zones Plan (extent and nature of the infrastructure areas) and stipulation of maximum heights of infrastructure;

- The proposed viewpoint locations are acceptable to the Council;

- The Council is content to receive a combined landscape and habitat management and monitoring plan (LHMMP) to avoid duplication and potential confusion if landscape and habitat where addressed separately;

- No air quality assessment is required to be submitted with the Planning Application in due course; and

- No cumulative development proposals require to be considered within the Planning Application submission.

You will also be aware that we have written separately to you seeking Council feedback on our proposed public consultation strategy. This is in accordance with Horsham District Council's published Statement of Community Involvement (SCI), dated 24 September 2020, as we look forward to your response to that letter

If you require any further information, please do not hesitate to contact me.

Yours faithfully,

[redacted]

Rachel Ness BSc (Hons) MRTPI
Head of Planning
[redacted]

Attachments/Enclosures:

- Appendix 1: Proposed Planning Application Documentation and Drawing Pack

- Plans:
  - CST006-DGP1.0 rev01 Site Location Plan
  - CST006-DGP2.0 rev01 Existing Site Plan
  - CST006-DGP3.0 rev07 Proposed Development Zone Plan
  - CST006-DGP4.0 rev09 Example Proposed Indicative Site Layout
  - 1328/6a Rev C Landscape and Ecological Mitigation and Enhancement Strategy
  - Landscape Visual Figures 1328/5a and 5b Proposed Viewpoints

Appendix 1

Proposed Planning Application Documentation and Drawing Pack

1. Notwithstanding that we consider the Proposed Development does not constitute EIA development and, subject to the views of the Council, it is intended that the forthcoming full planning application would be accompanied by the following reports:

    - Planning, Design and Access Statement;
    - Construction Traffic Management Plan;
    - Transport Assessment;
    - Landscape and Visual Impact Assessment;
    - Ecological Impact Assessment including biodiversity net gain assessment and species surveys where required to inform the assessment;
    - Draft Biodiversity Gain Plan;
    - A combined Landscape and Habitat Management and Monitoring Plan;
    - Heritage Desk Based Assessment;
    - Noise Impact Assessment;
    - Arboricultural Impact Assessment;
    - Agricultural Land Classification Survey;
    - Flood Risk Assessment and Outline Drainage Strategy;
    - Battery Safety Standards Report; and
    - Statement of Community Involvement.

2. The following plans showing the indicative infrastructure layout and elevations, access proposals, landscape planting and biodiversity proposals will also accompany the application.

Drawing Number	Status	Drawing Title
DGP 1.0	For Information	Location Plan
DGP 2.0	For Approval	Existing Site Plan
DGP 3.0	For Approval	Proposed Development Zone Plan
DGP 4.0	For Information	Indicative Site Layout Plan
DGP 5.0	For Information	Indicative Battery Pack and Elevations Plan
DGP 6.0	For Information	Indicative Containerised Equipment Plan
DGP 7.0	For Information	Indicative Inverter/Transformer Station Plan

Drawing Number	Status	Drawing Title
DGP 8.0	For Information	Indicative Perimeter and Substation Compound Fence and Gate Elevation Plan
DGP 9.0	For Information	Indicative CCTV and Infrared Camera Column
DGP 10.0	For Information	Indicative Substation Layout
DGP 11.0	For Information	Indicative Fire Safety Compliance Plan
TBC	For Information	Existing and Proposed Site Levels and Cross-Sections
1328/6a	For Approval	Indicative Landscape and Ecological Enhancement Strategy
TBC	For Information	Proposed Site Access Arrangement
TBC	For Information	Proposed Secondary Access Arrangement