

STRATEGIC PLANNING COMMITTEE MEMBERS' BRIEFING

Application: Warley Energy Hub (ref. P1498.24)
Recommended for approval by Havering planning officers

APPLICATION SUMMARY

Clearstone Energy's planning application for a 200MW battery energy storage facility, on land off St Marys Lane, Upminster, is due to be determined by the London Borough of Havering (LBH) Strategic Planning Committee on Thursday 10th July 2025.

The transition from gas-fired power stations to weather dependent wind and solar electricity generation has created a need for battery energy storage at major substations across the UK. Being able to store electricity close to Warley Substation, the distribution point for an area spanning Havering, Basildon, Brentwood and Thurrock, will help ensure a reliable and secure local electricity supply regardless of whether the sun is shining or the wind blowing.

As the UK Government's new [Clean Power 2030 Action Plan](#) makes clear, **we need to increase battery energy storage capacity across the country five-fold by 2030 to effectively harness this powerful new energy resource**. The application, if approved, would make a significant contribution to the decarbonisation of local and national energy supplies by 2030. By reducing our reliance on gas-fired power stations to balance electricity supply and demand, the proposed battery energy storage facility would **reduce CO2 emissions by 108,000 tonnes each year**; the equivalent to planting five million trees.

The application has been carefully developed following extensive community, stakeholder and statutory consultee engagement alongside discussions with **LBH who have recommended that the application is approved**. There are **no objections** to the application from technical Statutory Consultees and the application is in line with National Policy.

ABOUT CLEARSTONE ENERGY

Clearstone Energy is an independent, British renewable energy project developer. Since its founding in 2016, we have developed a number of large-scale energy projects in England - including two solar farms and four battery energy storage facilities. With a further six battery energy storage projects, including this one, in development, we are one of the most experienced developers in the sector. Please see www.clearstoneenergy.com for further information about the company.



ABOUT THE APPLICATION

The main site extends to 6 hectares (ha) of Grade 3b agricultural land (not BMV) to the east of Warley Street and north of St Marys Lane. The battery facility including access roads occupies 3.7 ha with the remaining 2.3 ha used for planting to support screening and wildlife habitat creation, contributing to a Biodiversity Net Gain in excess of 40%.

An existing agricultural access point from Warley Street would be used for construction traffic and operational maintenance visits. A secondary access point would be created off St Marys Lane for emergency use only, enhancing an existing agricultural access point.

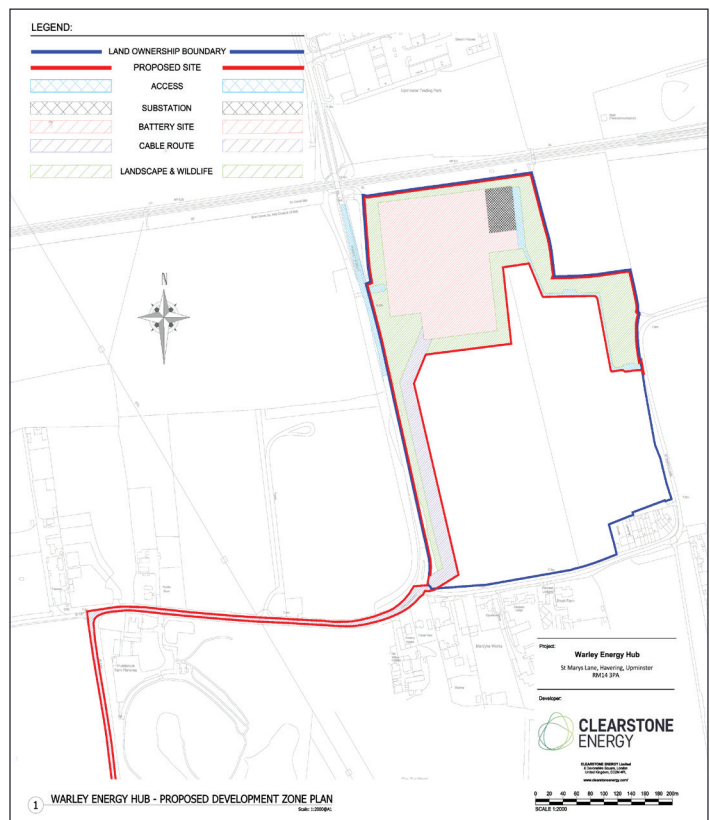
The project has a contracted grid connection to National Grid's electricity transmission network at Warley substation for 2029. The substation is approximately 1km south of the main site. The project would be connected to the substation via an underground cable running predominantly in the highway via St Marys Lane and Clay Tye Road. The total planning application redline area of 11ha includes the cable route.

Due to the high rate of innovation in battery storage technology, a degree of design flexibility is required to be built into a planning permission. This is known as the Rochdale Envelope Principle and it seeks to define development zones and maximum parameters for what can be constructed within those zones (similar to an Outline Planning Application). The benefit of this approach to LBH is that any new or revised standards relevant to the development can be incorporated into the design between consenting and commissioning.

Final technology choices would be confirmed prior to construction and are all subject to approval by the LBH in consultation with relevant consultees. This would be secured through planning conditions.

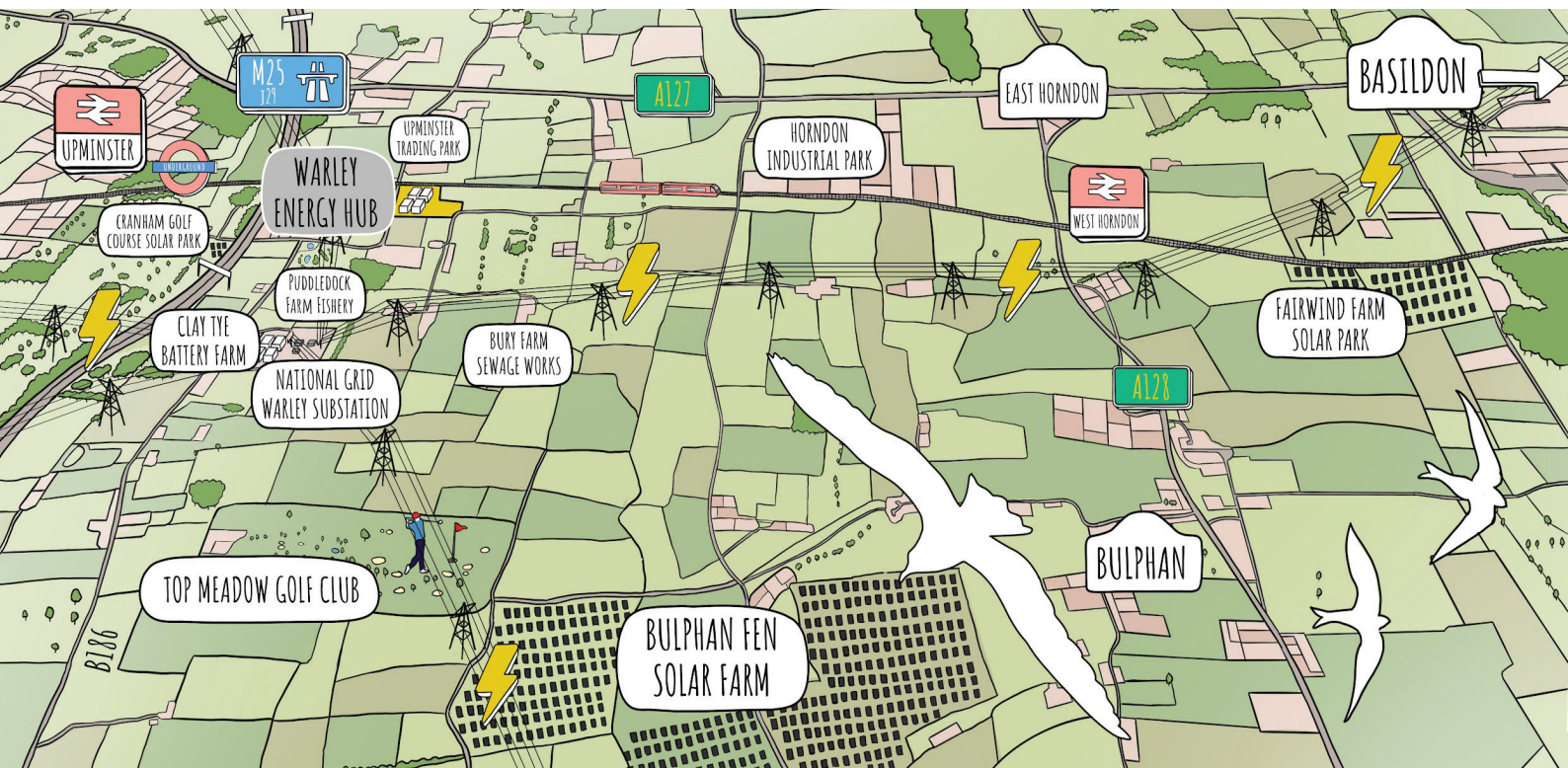
The proposal has been subject to extensive consultation. Pre-application advice was sought from London Fire Bridge on fire safety matters and there was extensive engagement with the Environment Agency on flooding and environmental protection during the application. In response to guidance from the Case Officer, the application you are considering also includes additional planting along site boundaries.

We undertook a comprehensive public consultation programme between July 2024 and February 2025, including a public exhibition event for local residents and Ward Councillors.



REASONS FOR APPROVAL

- **Recommendation for Approval** from LBH Planning Officer
- **No Objection** from all statutory consultees
- Would deliver **environmental and climate change benefits** by enabling increased production and consumption of renewable energy, contributing to LBH and UK climate change targets
- Would **increase energy security** by reducing the UK's reliance on imported gas for electricity generation and help network operators to deliver a reliable local electricity supply
- Carefully chosen site that would result in **minimal landscape, visual, noise or wildlife impacts**
- **Comprehensive approach to ensuring operational safety** and commitment to collaborate with London Fire Brigade on risk assessment and emergency response procedures
- **Temporary installation** – would be fully decommissioned after 40 years
- In excess of **40% biodiversity net gain** and landscaping enhancements



NEED

The need for battery storage is driven by the ongoing transition of UK electricity generation from gas and coal-fired power stations to wind and solar. This transition will ultimately deliver a future UK energy system that minimises carbon emissions, reduces energy bills and provides greater energy security.

Where gas-fired power stations can be turned on, off, up and down to match household and business demand, wind and solar generation is weather dependent and battery storage is required to be able to match supply with demand. The Warley Energy Hub would store excess electricity available when generation from the UK's wind turbines and solar farms is higher than demand and release that energy back onto the grid when demand is higher than generation, helping to ensure a reliable and secure local electricity supply.

Warley substation is the grid supply point for regional electricity supplies across Havering, Basildon, Brentwood and Thurrock, with a population of over 350,000 people, along with many businesses within 10km of the substation.

Battery energy storage deployment is currently lagging behind renewable generation build out. This means that we currently turn off wind farms when there's too much electricity and rely on gas-fired power stations to make up the difference when there's too little. In 2024, this saw **electricity that could have powered 2 million homes go to waste**, while guaranteed payments to wind farm operators added **£1 billion to UK energy bills** (Source: Octopus Energy). The National Energy System Operator has forecast that costs could increase to £6 billion by 2030 if the status quo is maintained, without storage projects like the Warley Energy Hub.



**Clean Power 2030
Action Plan:
A new era of
clean electricity**



LOCATION AND ALTERNATIVE SITE ASSESMENT

The site search was conducted within a 3km radius of Warley substation. This is considered to be the point at which the costs and electricity losses associated with longer cable routes make a project of this nature and scale unviable. This is a tighter search radius than for solar or wind generation projects as electricity losses are incurred both when the batteries charge from the grid and discharge back on to the grid.

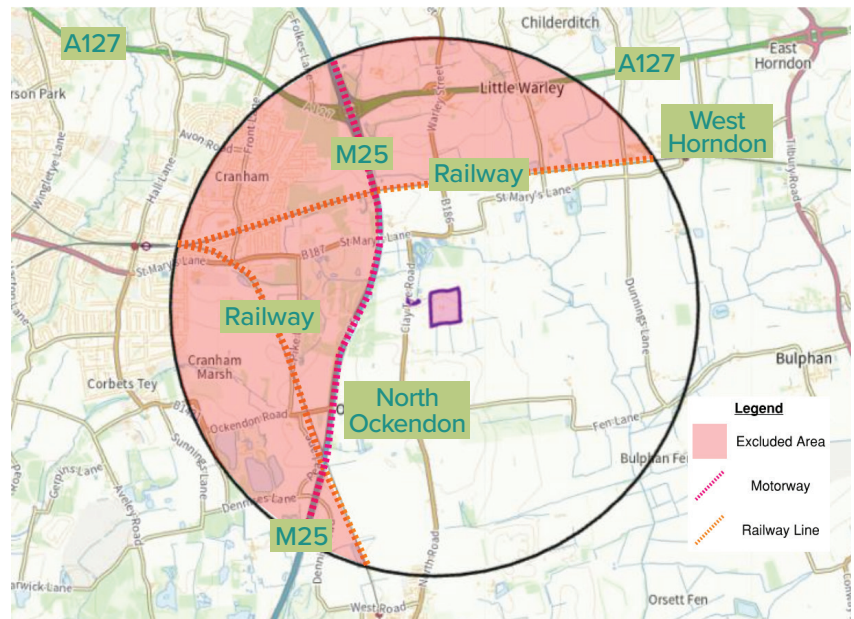


Figure 1: 3km Search radius from National Grid's Warley Substation

Within the 3km search radius sites were assessed based on the following criteria:

- **Viable cable route to the substation** - Crossing existing infrastructure is challenging, creates disruption and adds additional risk. This ruled out sites to the west of the M25, north of Upminster to West Hornchurch railway line and west of the Upminster to South Ockenden railway line.
- **Availability of brownfield sites** - Once the site search area is redrawn to remove cable route constraints there are no brownfield sites large enough for the proposal.
- **Separation from residential properties** - Sites should have a minimum offset of 200m from the nearest residential property to reduce impact on residential amenity.
- **Land availability** - Those landowners that responded to our approach to lease land for the proposal.
- **Access** - It is critical that the site is well connected to the strategic highway network and mitigates the need for vehicle movements in close proximity to residential properties, particularly during construction.

THE PROPOSED SITE

The sites that came forward from the site search exercise were assessed against a range of criteria including construction access, landscape and visual impact, flood risk and heritage impact. The proposed site performed well in the assessment for the following reasons:

- Construction vehicles could travel to the site via the strategic highways network, minimising impact on residential properties
- The site would have a limited impact on the openness of the Green Belt
- There are no designated (protected) heritage assets within the immediate vicinity of the site
- There are existing mature treelines and hedgerows to the north, east and west of the site that would minimise landscape and visual impact
- The site sits within the context of existing infrastructure, including road, rail and electricity development

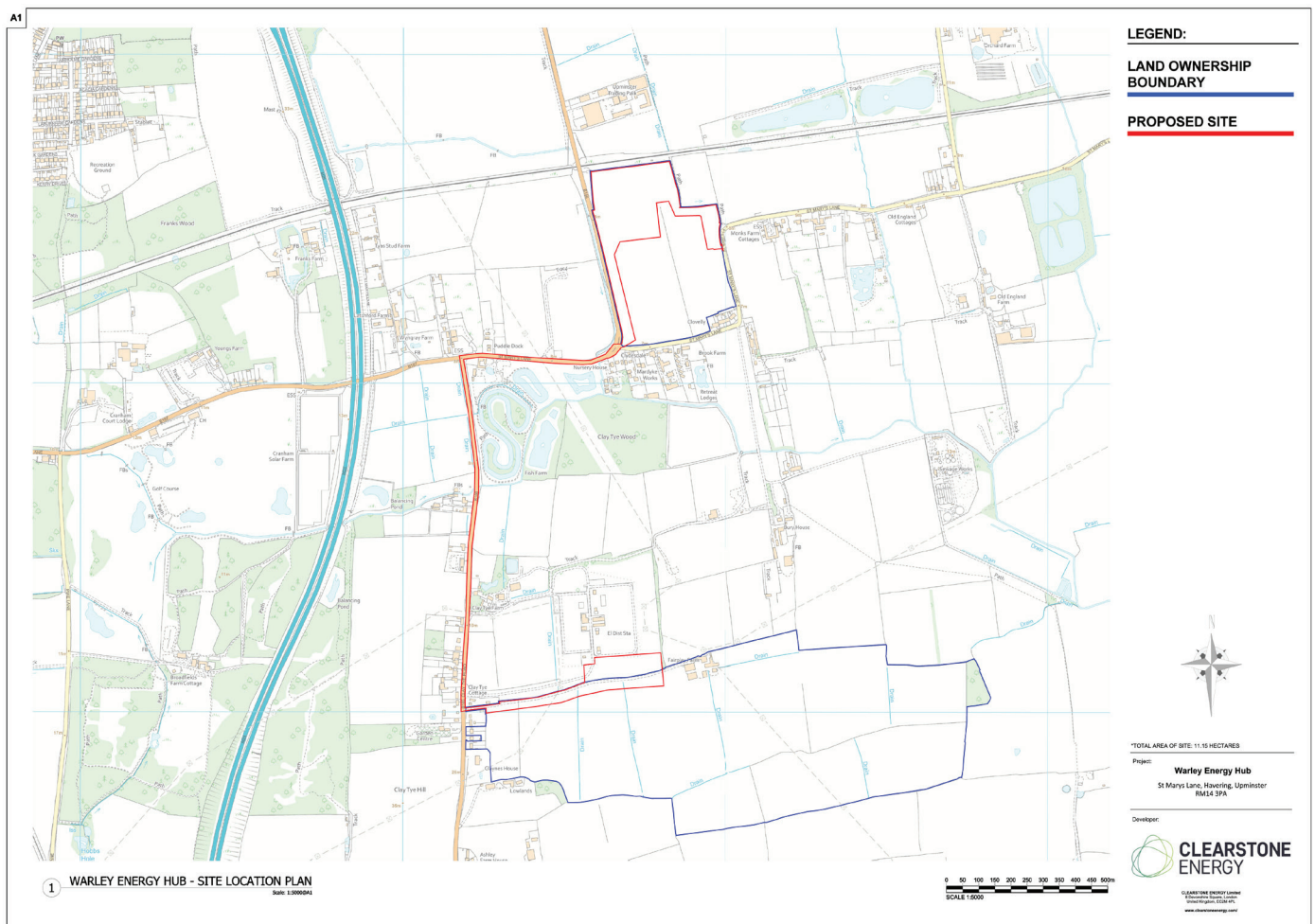


Figure 2: Site Location Plan

GREEN BELT AND VERY SPECIAL CIRCUMSTANCES

All land within the site search that has not already been developed for housing or commercial use is designated as Metropolitan Green Belt. Under NPPF para. 147–151, inappropriate development in the Green Belt is, by definition, harmful and should not be approved except in Very Special Circumstances (VSC).

In relation to demonstrating VSC for energy projects the NPPF states the following: “*Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources*”.

The proposed development would make a significant contribution to achieving local and national net zero commitments while also increasing energy security by reducing the UK’s reliance on imported natural gas. Recent appeal decisions from the planning inspectorate for energy projects located in the Green Belt indicate that the combination of reduced carbon emissions and increased energy security is considered to represent Very Special Circumstances.

Furthermore, the project site is located close to existing rail infrastructure and Upminster Trading Park meaning that the project would result in limited harm to the landscape and the openness of the Green Belt. It is also a temporary installation of 40 years meaning there would not be a long-term loss of Green Belt.

The LBH Planning Department has registered a **Recommendation for Approval** on the basis of Very Special Circumstances being demonstrated.

PRECEDENT AND POLICY ALIGNMENT

- The proposal aligns with:
 - NPPF Paragraphs 152–158 (Climate Change Mitigation and Adaptation);
 - The Government’s Clean Power Action Plan (2024); and
 - Havering’s declaration of a Climate Emergency (Mar-23) and Carbon Neutral target of 2040.
- The Havering Development Plan and Havering Climate Change Action Plan both strongly support the delivery of renewable energy.
- Similar recent Battery Energy Storage System (BESS) proposals have been permitted on Green Belt land by other LPAs (such as Runnymede BC and Tandridge DC) on VSC grounds.
- Similar Battery Storage proposals have been allowed at appeal on Green Belt land by the Planning Inspectorate (Walsall MBC, Chelmsford CC, Trafford MBC, Warwick DC, South Tyneside MBC and Thurrock) on VSC grounds.



Figure 3: Green Belt Area Shaded Green (3km Search Area from Warley Substation)

PUBLIC CONSULTATION

Clearstone Energy undertook a comprehensive public consultation programme between August 2024 and February 2025. Consultation activities included an online webinar as well as the distribution of leaflets and brochures, and the creation of a project website.

In response to comments made by local residents on the application, an in-person event was held in February 2025 to update local residents on changes to the proposal made in response to their feedback and provide reassurance on concerns. The webinar and in-person event were attended by a small number of local residents living within 500 metres of the proposed site. A letter was sent to all local residents with the information shared at the event.

Updates to the proposal made based on resident feedback include:

- Enhanced planting to the east and western field boundaries to reduce views of the site from nearby roads
- Removal of the acoustic fence from the eastern boundary based on a detailed noise impact assessment
- 400 metres of additional hedgerow planting to increase visual screening

Residents' comments, our response and the associated Statutory Consultee's judgement are listed below:

TOPIC	COMMENTS	APPLICANT RESPONSE	STATUTORY CONSULTEE
<i>Visual Impact</i>	Concerns over visual impact of the project.	The landscaping and planting scheme for the Proposed Development has been designed to minimise views of the facility from nearby properties. There would be substantial planting of additional hedgerows and trees as well as the bolstering of existing hedgerows.	No Objection from Place Services Landscape Consultee
<i>Noise</i>	Concerns over noise from the project during construction and operation.	Noise from the battery facility would be lower than background noise from local roads both during the day and at night. Construction would take place during working hours with noise and vibration controlled by the Construction Environmental Management Plan. Residents would be able to raise any concerns through the project's Community Liaison Officer.	No Objection from Environmental Health Officer
<i>Traffic</i>	Concerns regarding increased traffic during the construction period.	Construction traffic is proposed to enter and exit the Site directly from the north, via the A127, avoiding the need to pass along St Marys Lane. The traffic data and consultation responses confirm that Warley Street, and to a lesser extent St Marys Lane, are currently busy highways. In this context, the increase in vehicle movements on Warley Street would be relatively small.	No Objection on Highways Grounds
<i>Public Footpaths</i>	Queried whether the existing public footpath would be affected by the project.	As part of our application, we have committed to retaining and restoring the existing footpath which runs from St Marys Lane to the railway line, adjacent to the Site, this includes additional planting to provide screening for the Site and enhance biodiversity.	No Objection from the PRoW Officer

Fire and Safety

Concerns over the safety of BESS projects generally and potential impact from any events on local residents.

We consulted with the London Fire Brigade on fire safety strategy and it confirmed it was satisfied with plans. If the project gains planning consent we will continue to work with the London Fire Brigade to develop an emergency response plan for the facility. The Environment Agency has reviewed environmental protection provisions relating to fire safety.

No Objection from London Fire Brigade

No Objection from Environment Agency

Wildlife and Biodiversity

Concerns about the potential for negative impact on wildlife and ecology.

The landscaping and planting plan for the facility would increase local biodiversity by creating new, long-term habitats for wildlife on land outside of the battery infrastructure within the site. Specifically, this would have a positive impact on both permanent and visiting bird populations.

No Objection from Place Services Ecology Consultee

Loss of Agricultural Land

Loss of the agricultural land as a concern and the impact that this may have on national food security.

Climate change is the greatest risk to UK food security and this project is supporting the UK in achieving its climate goals. An independent ALC Survey was undertaken and submitted as part of the application. It found that the land is ALC Grade 3b, and therefore no best and most versatile (BMV) land exists within the Site.

No Objection from the Planning Officer

Flood Risk

Concerns over causing additional flooding to the southern part of the field.

The designs submitted to LBH ensure that existing issues would not be made worse by the construction of the facility.

The proposed drainage strategy has been designed to ensure that the land would continue to drain at a similar rate to currently. Further, additional planting and passive management of rainwater runoff, rather than annual intensive farming operations, may also help to reduce flooding by slowing down the flow of rainwater, increasing the absorption of rainwater, and reducing soil erosion.

No Objection from the Environment Agency or the LLFA

LANDSCAPE, VISUAL AND CUMULATIVE IMPACT

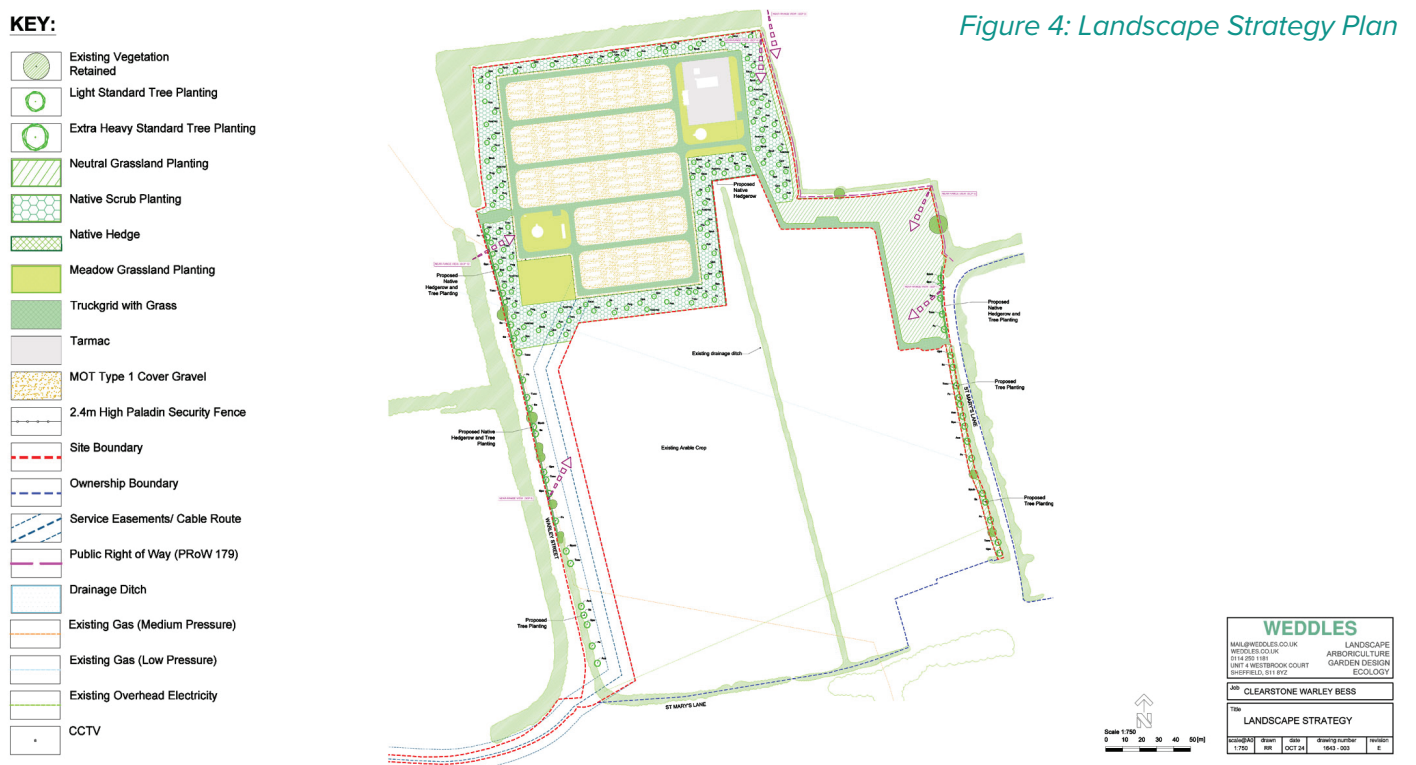
The maximum height of battery units and associated switchgear is 3.5m, making the majority of the site a low-profile development. Only the cable support frames of the substation would be taller than this, within a 0.24 ha area in the north-eastern corner of the site. The northern aspect of the site is well screened by the existing railway and mature hedgerows and trees. To the east and west of the site we are proposing additional planting to strengthen the existing hedges and trees to the field boundary, supporting natural screening from Warley Street and St Marys Lane. The gap between the development area and these boundaries would be filled with new tree and shrub planting to further strengthen screening.

The southern aspect of the site is more open. We are proposing a thick belt of tree and shrub planting to the southern site boundary. Mixing trees and shrubs would provide height to this screening belt from year 1 of the project to minimise visual impact experienced by the small number of properties located on the north of St Marys Lane.

This new screening belt would be supplemented by the bolstering of existing hedgerows running south from the proposed site along Warley Street and St Marys Lane with new hedgerows and trees. This would reduce views of the site from vehicles passing along these roads. In total an additional 400 metres of new hedgerow will be planted on site.

The proposed development is not connected commercially or physically to other development proposals coming forward locally, such as the proposed data centre at North Ockenden, and there is sufficient geographical separation to ensure that cumulative landscape impact is not an issue.

As Statutory Consultee for Landscape, Place Services landscape consultee has confirmed that it has **No Objection** to the proposals.



BATTERY SAFETY

The proposal has been designed in line with safety guidance from the UK's National Fire Chief Council (NFCC) and with input from experienced battery fire safety experts. This includes:

- Providing two access points; one off Warley Street to the west, and a second emergency access off St Marys Lane to the east
- Meeting requirements for sufficient spacing between BESS units to ensure that fire cannot propagate between units
- Providing adequate emergency water supplies on site and a pumped hydrant system;
- A drainage system that can be closed in the event of a fire to contain fire-fighting water on site and prevent contamination of local water courses
- A digital fire alarm information system that would provide attending fire service personnel with detailed data about battery unit conditions and status to support effective management of an incident

An outline Emergency Response Plan has been produced for the proposal. It includes a commitment to providing a rapid response Subject Matter Expert, fully trained in the BESS technology selected for the project, to work alongside fire service personnel to safely manage an incident on site.

A comprehensive site safety report identifies the likely impacts of a worst-case scenario situation of a full battery unit fire based on full-scale fire tests and plume modelling studies. It demonstrates that a fire incident would be contained and could be safely managed by the London Fire Brigade without endangering the local community or environment.

The Environment Agency has reviewed environmental protection provisions related to fire safety, including on-site fire water containment, and is satisfied with the proposal.

Should consent be granted we are committed to continuing to consult with the London Fire Brigade on detailed site design and collaborating on final risk assessments and emergency response plans.

London Fire Brigade is satisfied that the proposal meets NFCC guidance and has raised **No Objection.**

FLOODING, GROUNDWATER AND DRAINAGE

A full Flood Risk Assessment (FRA) and Drainage Strategy accompanied the application. The FRA shows that a small section of the development area is located in Flood Zone 2 (medium risk - between 0.1% and 1% annual probability). Any equipment located within this section of the site would be raised 300mm above the level of any flooding on an aggregate drainage blanket. This would enable flood water to pass beneath the units and so mitigate against the potential for increased flood risk elsewhere.

The drainage strategy is based on a sustainable drainage system that uses a layer of aggregate with a 30% void underneath the development area to collect and convey water towards an outlet point into the nearby Mary Brook. Check dams would be provided within the drainage system to manage flow rates through the aggregate layer and discharge into the brook would be restricted to match natural greenfield run off rate. The access tracks around the compound areas would also be constructed from permeable aggregate and discharge into the system.

This strategy was developed through early consultation with the Lead Local Flood Authority, and is deemed acceptable by the Environment Agency and has been approved on comparable infrastructure projects.

The Environment Agency as Statutory Consultee for Flooding and Drainage has confirmed that it has **No Objection** to the proposals.

DECOMMISSIONING

Planning permission is sought for a temporary period of 40 years following first import/export of energy to the Proposed Development. This aligns with the general approach taken in respect of other energy infrastructure such as solar and wind farms.

The BESS does not contain any permanent infrastructure and is entirely reversible at the end of its operational lifetime and the land can be returned to its previous use. After the 40-year lifetime of the project, the BESS would be decommissioned by a specialist recycling company and the land would not accrue “brownfield” status.

A decommissioning bond would be set up and maintained throughout the lifetime of the project. It would be index linked to account for inflation. The land would be reinstated to its existing form as agreed with the landowner. This would also be secured as part of a pre-approved decommissioning plan submitted to Havering Planning Department.

COMMUNITY BENEFIT FUND

It is important to Clearstone Energy that its projects serve a local purpose and make a positive contribution to the local community. The proposed community benefit fund would provide £50,000 per annum, index linked, to increase in line with inflation across the 40-year lifetime of the project, £2 million in total.

We proactively engaged with the local community on the merits and sought feedback on a Community Funding Offer (£50,000 per annum, index-linked), and the proposal was positively received.

We are open to suggestions regarding the distribution of these funds and have previously utilised funds for:

- Low carbon retrofits for community buildings
- Support for local community projects within the immediate area
- Funding to support energy saving initiatives focused on low-income households within the local authority area.

We are keen to work with the local community to get suggestions for how the fund could be used to benefit the local community.



LOCAL CONTRACTORS AND SUPPLIERS

We would ensure, wherever possible, that local contractors and suppliers have the opportunity to become part of the Warley Energy Hub development through the procurement process. Most employment and contractor opportunities would likely be during the construction phase, as well as ongoing maintenance of the site once it is operational.

CONCLUSION

The proposals for Warley Energy Hub are supported by and compliant with local and national planning policy. If approved, the project would make a significant contribution to achieving the goal of a decarbonised UK electricity supply by 2030, while ensuring the security of local electricity supplies.

With no objections from technical statutory consultees, we welcome the Officer's recommendation for approval, and we hope members will follow the recommendation and approve the application at committee on Thursday 10th July.