Officers Report
Planning Application No: 147131 / WL/2024/00036

PROPOSAL: Planning application for the construction and operation of a Battery Energy Storage System (BESS) including substations, inverters, transformer stations, cabling, fencing, internal service track and landscaping.

LOCATION: Land south of Barfield Lane, Reepham, Lincoln
WARD: CHERRY WILLINGHAM

WARD MEMBER(S): Cllr T Bridgwood, Cllr C Darcel, Cllr M Palmer.
APPLICANT NAME: Mr Alex Dickenson- Fiskerton BESS Ltd.

TARGET DECISION DATE: 01/12/2023 (Extension of time agreed until 8th November 2024)

CASE OFFICER: Danielle Peck

Recommended Decision: Grant planning permission with conditions and delegate to officers to issue an approval once the Legal Agreement (Unilateral Undertaking) to secure a secondary access in the event of an emergency has been signed.

The application is referred to the planning committee for determination following the request of Ward Member Cllr T Bridgwood, stating material planning considerations.

Site Description: The application site covers an area of c. 1.3ha of agricultural land, it is located c. 650m to the north east of Reepham and to the south of Sudbrooke, it is located within the open countryside. The site is adjoined by a sewage water treatment works to the west and a gas/oil facility to the east. Part of the site which crosses over the Beck is located within Flood Zones 2 (medium probability) and 3 (high probability). There are a number of Public Rights of Way which run within close proximity to the site, namely;

- Reep/109/7 and Reep/109/8 (along Barfields Lane) Reep/129/1 (to the west) Reep/129/2 (to the north).

The Proposal: The application seeks full planning permission for the installation and operation of a Battery Energy Storage System (BESS) with the capacity to store and export up to 53MW of electricity to the local distribution network for up to two hours. It would be possible for the development to distribute lower levels of power for longer periods of time, this will be dependent on the network capacity and peak demand periods. The facility will provide balancing services to the network. The development will include the following:

- 16 No. battery units - Each battery container would measure 18.3m in length, 2.4m in width and 3m in total height, sited on concrete bases.

- 16 No. inverters and 8 No. transformers; Inverters will measure 4.7m by 3.5m with transformers measuring 4m by 4m.
- 132kV Developer and Distribution Network Operator (DNO) substation compound and associated cabins including a switchgear/meter room. The compound will measure 52.m by 25m and will be enclosed by a 2.4m high palisade fence;
- 2 No. welfare cabins;
- 4 No. spare and storage containers;

  All of which will measure 12.m by 2.4m.
- Underground cable to the point of connection with the local distribution network;
- Perimeter fencing 2.4m high and inward facing infra-red CCTV;
- Internal service road;
- 1.5metre high landscape screening bunds and native planting; and
- Fire Water Storage Tank and Surface Water Attenuation Pond.

The point of connection to the local distribution network is located on the existing 132kV overhead cables on land to the immediate north of Wragby Road East, North Greetwell, approximately 3.4km due west of the proposed battery compound.

Throughout the application process additional information has been received and re consulted on where necessary, as follows;

- Following a series of trial trenches a final Archaeological Report was received on 13/05/2024 - The Historic Environment Officer at Lincolnshire County Council was re consulted.
- A Battery Safety Management Plan- Fire Strategy by OWC, an amended Site Layout Plan and details of fire water tanks were received on 19/06/2024 - Lincolnshire Fire and Rescue Service re consulted and a response received on 02/10/2024. Further consultation was also carried out with Star Energy (owner of adjacent site) on this additional information however no further response has been received.
- Draft Legal Agreement (Unilateral Undertaking) received on 17/09/2024 to secure a secondary access in the event of an emergency.

Town and Country Planning (Environmental Impact Assessment) Regulations 2017: A screening opinion has been given by the LPA under reference 145794, which stated the following. The development is “Schedule 2 development” and has therefore been subject to screening to determine whether or not an Environmental Impact Assessment is necessary. After taking account of the criteria in Schedule 3 of the 2017 Regulations It has been

determined that the development IS NOT EIA development, i.e. it will not have significant environmental effects by virtue of its nature, size or location.

Relevant Planning History:

145794- EIA Screening Opinion for BESS - Not EIA development.

Representations (In summary)- Full versions of the representations received can be viewed on the Councils Website using the following link: West-Lindsey | Public Portal (statmap.co.uk)

Cllr Trevor Bridgwood:

13/11/2024- Following the Planning Committee meeting on 6th November 2024 where the committee decided to defer the decision on this application until after a site visit. I would like to reiterate my concerns regarding the site.

The application is unique due to its location adjacent to the higher tier COMAH site Welton Gathering Centre owned by Star Energy. Star Energy have already requested that the applicant produces and has approved a COMAH compliant Safety report prior to commencing any works. This request has been repeated and amplified by Star Energy in their email submission dated 08 November 2024 11:37. This was in response to the production of the Outline Planning Phase Battery Safety Management Plan – Fire Strategy, that was submitted to the LPA on 19/06/2024. Their submission was delayed due to the WLDC consultation request being missed due to holidays and the volume of emails that the addressee receives on a daily basis.

I have reviewed the Outline Planning Phase Battery Safety Management Plan myself and would like to point out short comings and contradictions in the submitted plan.

1. The Safety Management Plan in section 2 Guidance list the minimum UK Statutory Instruments and a number of further relevant guidance documents that have been reviewed by the authors OWC in producing their document. At no point is the 3rd edition Guidance of The Control of Major Accident Hazards Regulations 2015 mentioned. This is the document that COMAH sites are required to work to and due to the proximity of the WGC should be the primary reference for the proposed development site.
2.
3. Type of BESS container. In section 3.3 paragraph 2 the report states that the container design will be “container-based battery systems which allow people to walk inside for maintenance purposes.” At section 3.4 it states “The BESS cabinets proposed for this development are not walk in units, as such there will be no need to access the cabinets in the event of a fire.” Then in section 4 paragraph 4.1.1 the report states “If BESS containers that can be entered (walk-in container) are used in the final design,” whilst it is appreciated that the final design is not decided this inconsistency brings into doubt the integrity of the document.

During the Planning Committee meeting on 6th November Cllr Emma Bailey asked a question about the water storage on the site. The application states: “A fire water storage container will be included in the developed design, to ensure a minimum flow rate of 1,900L/minute for 2 hours” the applicant has also

provided a drawing of the Fire Water Tank details. This is a container measuring 10.142m x 4.599m x 2.448m. This equates to 114m^3 or 114,000 litres. The requirement for water storage given in the proposal and guidance from the NFCC is for sufficient water for two hours at 1,900L/min. In one hour this equates to 1,900L x 60minutes or 114,000 litres. The application therefore requires two of the fire water storage containers on the site. There is no indication of such containers on the site plan provided by the applicant. Furthermore the NFCC guidance states that any water storage tanks should be located at least 10m away from any BESS container. Based on the site layout drawing provided by the applicant there is insufficient space on the site to locate the required two water storage tanks.

The NFCC Guidance at lines 440 to 442 states “should the BESS unit have a thermal event and progress to thermal runaway, the BESS unit should be allowed to consume itself i.e. burn itself out.” The Carnegie Road BESS, located in Liverpool, on 15 December 2020 incident (which was only a 20MwH site) took 11 hours to fully extinguish. On that basis there is an additional requirement for water supplies on site for far more than the existing provision. There are no fire hydrants incorporated in the submitted design and I understand from Star Energy that there are no water hydrants in the location. Added to this as also raised by Cllr Emma Bailey and answered by the case officer Danielle Peck during the committee meeting the proposed bunding for fire fighting water runoff is designed to hold the volume of water used in the initial two hours, as such it is insufficient to meet the probable requirement in the event of an incident at the site. Analysis of recent BESS fires would suggest that a fire incident would last much longer than two hours and involve significant volumes of water that can neither be provided on the proposed site or contained for future disposal. BESS incidents worldwide are recorded on EPRI's Battery Energy Storage System Failure Incident Database, BESS Failure Incident Database - EPRI Storage Wiki

Additionally, NPPF Paragraph 9 states “These objectives should be delivered through the preparation and implementation of plans and the application of the policies in this Framework; they are not criteria against which every decision can or should be judged. Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area.” The location of the proposed site adjacent to the COMAH High Tier site WGC fails to take into consideration the local circumstances in regard to additional unnecessary risks to local safety.

Paragraph 11 The presumption in favour of sustainable development in regard to decision taking states that “any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.” The risk to public safety and environmental harm to the area are not shown to have been mitigated in regard to the location and surroundings or the proposed development site. NPPF Planning for climate change paragraph 162. In determining planning applications, local planning authorities should expect new development to: b) take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption. The proposed site is 3.4km away from the closest DNO. Electricity losses for underground cable is 8-15% as the proposed site is temporary electricity storage the cost in terms of losses will be 16 to 30% of the electricity. Therefore, the proposal represents a drain on the electricity network.

26/06/2024- Thank you for providing a copy of the applicants Fire Safety Statement. I am concerned that the document does not provide any detail of what precautions and safety systems will actually be installed in the proposed

system. It makes reference to numerous bodies, guidance and standards but makes no attempt to confirm that any of them have been applied. Two of the Guidance documents that they refer to relate specifically to Fire, these are:
• The Fire Protection Association "RE1: Battery Energy Storage Systems – Commercial Lithium-Ion Battery Installations" (December 2022)
• The Fire Protection Association "RE2: Lithium-Ion Battery Use and Storage" January 2023.
RE2 is about the storage of batteries rather than the use of batteries as storage. It's guidance relates to the storage of unused batteries i.e. batteries being stored for distribution. Paragraph 3.3 of this document states "There are currently no specific UK or European guidelines for fire protection of lithium-ion batteries storage." It goes on to refer to FM global documents and provides summaries from them. In regard to BESS sites the FM Global extract refers back to The Fire Protection Association publication RE1. I suggest that RE2 itself is not relevant to this application.

RE1 is therefore the appropriate publication referred to by the applicant in regard to the fire protection for the proposed site. I attach a copy of this document for your reference. I would like to highlight some points in the publication as follows: Section 3: "All BESS installations should be subject to a suitable fire risk assessment. I recommend that this is completed by a Fire Engineer who is a member of the Institute of Fire Engineers (IFE) and has experience in the specific field of BESS installations.

Section 3 paragraph 2: Locate BESS systems in non-combustible containers or enclosures at least 3 metres from other equipment, buildings, structures and storage. The application is for 16 battery storage containers all of which appear to have less than this distance between the adjacent storage container.

Section 3 paragraph 3: Walk-in containers and other enclosures used to house BESS equipment should not exceed the dimensions of long "high cube" shipping containers, i.e. maximum dimensions 16.2m long, 2.6m wide, 2.9m high. The application drawing WB1001/14/07 Revision 0 gives the battery container dimensions as: 18.575m long, 2.438m wide and 3.096m high. Two of the proposed storage container dimensions are greater than the maximum given in the document that the client refers to in their Fire Safety Statement. The applicants fire safety statement far from easing my concerns regarding this application makes more concerned regarding the suitability of this planning application.

03/11/2023- I would like to call the planning application detailed below into committee for determination on the grounds detailed in my emails below. Planning application: 147131 Land south of Barfield Lane, Reepham, Lincoln, Reason: The application is for a development that is beyond the existing knowledge of the Planning Department in regard to Fire Safety issues and potential environmental contamination in the event of a fire. Furthermore the potential hazards of BESS sites are not sufficiently covered by existing planning legislation in the form of Approved Documents.

Sudbrooke Parish Council:

03/11/2023- Sudbrooke Parish Council object to the above application on grounds that safety precautions do not appear to have been taken into account. It is also requested that determination of the application should be made at full Planning Committee. It is understood that Councillor Trevor Bridgwood has already made this request.

Reepham Parish Council:

12/12/2023- Having now read the response submitted by the Fire Service in respect of this planning application, Reepham Parish Council is in full support of the Fire Services comments.

06/11/2023- Further to our original response dated 29th Sept 2023, additional information has since been provided to Reepham Parish Council. Following consideration of this additional information (provided below), and also information from D/Cllr T Bridgwood, my Council now wishes to make the following comments/objections to make on the proposal: o Reepham Parish Council strongly urges WLDC heed the additional comments and information and engage the appropriate authority to provide verification, or otherwise, of the concerns raised.

29/09/2023-

- The Council is happy with the overall prospect
- Suggest inclusion of trees to preserve the rural aspect
- Suggest an acknowledged archaeological watching brief during construction
- Access to the site via Meadows Lane (both during, and after, the construction phase) should be controlled; with a view to preventing permanent access.

Langworth Parish Council: This application has been brought to the attention of Parish Councillors by District Cllr Trevor Bridgwood. Concerns and disappointment have been raised that Langworth Group Parish Council was not directly consulted by West Lindsey District Council, even though the parish lies close to the site in question, and it is understood that at least one other parish council further afield has been consulted. Having considered matters, Langworth Group Parish Council formally resolved that it fully supports both the comments and concerns raised by District Cllr Trevor Bridgwood; as well as those submitted by neighbouring parish councils as seen on your website.

Greetwell Parish Council: No comments to make on the application.

Nettleham Parish Council: No comments to make on the application.

Local residents/Third Party Representations:

Objections and general observations have been received from the following 11 West Drive Sudbrooke and Rowsley, Station Road, Langworth

Comments summarised as follows;

- This application represents planning creep of an existing energy enterprise (Welton Oil Fields) and will lead to the further industrialisation of the area. This piecemeal planning approach does not afford the council or the community the opportunity to examine the long-term ambitions of the enterprise, or consider the impact that will have on the whole area;
- Safety concerns with the siting next to the gathering centre
- Concerns with fire safety and lack of water storage;
- Concerns that there is a high risk of explosion;
- Concerns that toxic fumes in the event of a fire/explosion will cause harm to livestock;
- Contamination risks to nearby water courses;
- Flooding concerns and chemical run off;

- Combined sewers could overflow;
- Welfare cabins- is there no sewage facilities on site for maintenance workers;
- Inaccuracies within the Archaeological report;
- How is the electricity to be produced that will be passed through these storage batteries. Will this be wind, solar, gas or oil generated electricity, and where/when will these facilities be sited.

A general observation has been received from 28 Wragby Road, Sudbrooke- I live directly opposite this proposed site. I do not object as long as it is painted dark green and blends into the landscape. Ample screening needs to planted and should include some taller trees as the land slopes up considerably behind the Anglian water site and building here would be more visible. I currently look out onto arable farm land and I would like that to continue. I do object if this is a gateway for any wind turbines or further development.

A letter of support has been received from 3 Fiskerton Road, Reepham- The site proposed is ideal for embracing a future focused energy solution, well away from the general view for any residents of the parish sat amongst other utility stations. Furthermore, the site would not be taking prime agricultural land out of use yet still retains sensible access routes for public right of way and the aforementioned utilities.

Star Energy (adjacent site operator)-

08/11/2024- I would like to reiterate as per my letter to the agent James Cook on the 11 March 2024 that the development must give regard to the below.

1. WGC is actually a “Upper Tier” COMAH site not a “Lower Tier”;

2. Star Energy would respectfully suggest that it is for the developer of a scheme in close proximity to a Upper Tier COMAH installation to produce a Risk Reduction Strategy and/or COMAH Safety Report prepared in accordance with Schedule 3 of the 3rd edition Guidance of The Control of Major Accident Hazards Regulations 2015.

3. Such report should address how the construction, operational and decommissioning phases of the given project has been designed with the presence of the given COMAH installation (in this case WGC) in mind, and how the same has the scope to interact with safe operation of the WGC;

4. Such a report can be used to understand the scope for a “domino effect” under Regulation 24 of The Control of Major Accident Hazards Regulations 2015.

Taking account of the above I would suggest that if you are mindful to grant planning permission for the aforementioned development as a prerequisite before implementation of the planning permission a COMAH Safety Report should be prepared in accordance with Schedule 3 of the 3rd edition Guidance of The Control of Major Accident Hazards Regulations 2015 and submitted as a prior approval condition to ensure the development takes account fully of the points and concerns we have raised above and in the attached.

It also worth noting as I have mentioned to Councillor Bridgwood that our site at Barfield Lane is a 24/7 operation with members of staff always on site and in the event of an emergency there is procedure to follow to isolate and shut down the site.

11/03/2024- Whilst Star Energy benefit from planning consent for battery storage at Welton Gathering Centre (“WGC”) this is for a very small scale facility (3MW) relative to the 52MW envisaged in your clients application.

Consistent with the view of the LFR, Star Energy would like to see more information to be content that the activities undertaken at the WGC have been adequately considered when designing the BESS scheme at your client's site. It is noted that LFR have raised five specific comments, as follows:

Battery systems have the potential for thermal runaway with possible explosive results, so to have such a hazard immediately adjacent Welton Gathering Centre, a Lower Tier COMAH site, which holds large quantities of crude oil and hydrocarbons as well as piped natural gas throughout the site, from an LFR perspective is an unnecessary risk.

This site would sit within the 500m Public Information Zone (PIZ) set by HSE, which sets boundaries for those people/businesses that would be affected by a major accident occurring at the site.

With two such hazards adjacent to each other, any fire service operations in one area will be made more complicated by the presence of the other. For example hydrocarbon fires produce large quantities of thick black smoke, which if it were to enter the BESS containers could potentially lead to carbon arcing and possible thermal runaway.

Access to the site is very limited, with only one road from a certain point. Whilst recognising this is the current situation with the established COMAH site, LFR would expect this to be rectified with a new build, taking into account prevailing winds. LFR would require alternative access and egress routes to allow safe firefighting operations.

We would expect, Star Energy, site owner of Welton Gathering Centre, to have been consulted as per the HSE guidance relating to building adjacent to COMAH sites.

Star Energy would have a number of observations on these points as set out below:

1. WGC is actually a "Upper Tier" COMAH site not a "Lower Tier";

2. Star Energy would respectfully suggest that it is for the developer of a scheme in close proximity to a Upper Tier COMAH installation to produce a Risk Reduction Strategy and/or COMAH Safety Report prepared in accordance with Schedule 3 of the 3rd edition Guidance of The Control of Major Accident Hazards Regulations 2015.

3. Such report should address how the construction, operational and decommissioning phases of the given project has been designed with the presence of the given COMAH installation (in this case WGC) in mind, and how the same has the scope to interact with safe operation of the WGC;

4. Such a report can be used to understand the scope for a "domino effect" under Regulation 24 of The Control of Major Accident Hazards Regulations 2015.

5. Notwithstanding Table 4.1 of the Supporting Statement, Star Energy requires more information on HGV activity in the construction, operational and decommissioning phases of the project, to understand how this may impact on the operation of WGC. How would the higher intensity periods of HGV activity be managed in liaison with Star Energy;

6. Does your client have any concerns for cumulative effects or risks when

considering the recently approved battery storage at WGC and their own proposals;

7. If your client is minded to engage services, Star Energy uses a company called Haztech who have already completed the relevant assessments for the WGC; 8. In the event your clients secure consent, Star Energy will need to trigger a review of their own Safety reports and external emergency planning procedures, and any other documents to ensure full compliance with the COMAH regulations.

LCC Highways and Lead Local Flood Authority:

Comments: Installation of the cable connection will be subject to:

- If the cable is to be installed by a third party (i.e. not a statutory utility company), then we would need to consider a Section 50 licence. We are not required to grant licences for longitudinal cabling, however, we have in similar circumstances
- To consider approval of a Section 50, we would have to see a design which kept the cable out of the carriageway as far as possible. There are footways and wide verges here to utilise There is a Section 58 restriction on parts of the A158 on this route which prevents works in the carriageway until August 2024
- The A158 is a high traffic sensitive street, installation would need to avoid the coastal tourism season (April to end September)
- There is a 3km level crossing protection zone on this section of the A158, so Network Rail consultation would be required and TM costs taking this and the traffic sensitive nature of street could be significant.

Introduction/Site Location-Application for a Battery Energy Storage System on land at Barfield Lane, Reepham.

Existing Conditions -Greenfield site

Highway safety -Application does not affect highway safety

Highway capacity- Application does not have an unacceptable affect on highway capacity

Travel Plan- Not required

Site Layout- Substations, inverters, transformer stations, hard standing and fencing

Flood Risk and Drainage- Proposal has a suitable drainage system submitted as part of the application.

Off-Site Improvements None required.

No Objections. Having given due regard to the appropriate local and national planning policy guidance (in particular the National Planning Policy Framework), Lincolnshire County Council (as Highway Authority and Lead Local Flood Authority) has concluded that the proposed development would not be expected to have an unacceptable impact upon highway safety or a severe residual cumulative impact upon the local highway network or increase surface water flood risk and therefore does not wish to object to this planning application.

Recommends a condition and an informative in the event permission is granted.

Lincolnshire Fire and Rescue:

02/10/2024- Naturally we offered initial concerns about the BESS being so close to the Welton Gathering Centre, this will continue to form part of our risk gathering and pre incident considerations due to the processes, access etc., but from the evidence provided we accept the controls that will be put in place, so would welcome a visit once work is complete to factor in our emergency response.

We also appreciate the explanation about modern designs aiming to reduce the risk of thermal runaway, due to cell monitoring, cut offs and insurance mitigation due to the spacing between containers.
Again, being able to see these units first hand will allow us better planning, when we have the possibility to visit.

The alternative access via an emergency exit appeases the point around being able to get a fire vehicle in if there were an incident, allowing for the possibility if one exit was blocked/restricted and affording us an attack from either direction depending on water provision and prevailing winds for smoke, access and egress etc.

Lastly recognising we are still non statutory consultee, we appreciate the plans and being involved, so our questions have been answered explaining the mitigation at this stage

07/11/2023- I refer to the planning application reference 147131 – Land south of Barfield Lane Reepham Lincoln. Whilst recognising that Lincolnshire Fire & Rescue(LFR) are not statutory consultees as this is not a Nationally Significant Infrastructure Project, (NSIP), we are always willing to engage with all such projects within Lincolnshire. LFR recognises the use of batteries (including lithium-ion) as Energy Storage Systems (ESS) is a new and emerging practice in the global renewable energy sector. As with all new and emerging practices within UK industry the Service would like to work with the developers to better understand any risks that may be posed and develop strategies and procedures to mitigate these risks.

The developer should produce a risk reduction strategy (Regulation 38 of the Building Regulations) as the 'responsible person' for the scheme, as stated in the Regulatory Reform (Fire Safety) Order 2005. We would also expect that safety measures and risk mitigation plans are developed in collaboration with LFR.

The strategy should cover the construction, operational and decommissioning phases of the project. During the construction phase the number of daily vehicle movements in the local area will significantly increase. The Service will want to view the transport strategy to minimise this impact and prevent an increase in the number of potential road traffic incidents. Any development should not negatively impact on the Service's ability to respond to an incident in the local area.

LFR works within the guidance of the National Fire Chief's Council (NFCC) who have been working with several government departments to ensure that fire and rescue services are made aware of any new proposals. NFCC have created a guidance document (link below) that constitutes LFR's requirements for new BESS development proposals.

Following the work of NFCC, the Department for Levelling Up, Housing and Communities (DLUHC) has revised its Planning Policy Guidance to include reference to BESS. The guidance is available here: Renewable and low carbon energy - GOV.UK (www.gov.uk)

LFR are aware that large scale BESS incorporates new technology, and as such risks may or may not be captured in current guidance in pursuance of the Building Regulations (as amended) and the Regulatory Reform (Fire Safety) Order 2005. This will highlight challenges the FRS have when responding to Building Regulations consultations. For this reason, we strongly recommend applying the National Fire Protection Association (NFPA) 855 Standard for the Installation of Stationary Energy Storage Systems.

Whilst above I have laid out LFR's general response to any BESS applications the proposed location of this application does raise some specific concerns.

- Battery systems have the potential for thermal runaway with possible explosive results, so to have such a hazard immediately adjacent Welton Gathering Centre, a Lower Tier COMAH site, which holds large quantities of crude oil and hydrocarbons as well as piped natural gas throughout the site, from an LFR perspective is an unnecessary risk.
- This site would sit within the 500m Public Information Zone(PIZ) set by HSE, which sets boundaries for those people/businesses that would be affected by a major accident occurring at the site.
- With two such hazards adjacent to each other, any fire service operations in one area will be made more complicated by the presence of the other. For example hydrocarbon fires produce large quantities of thick black smoke, which if it were to enter the BESS containers could potentially lead to carbon arcing and possible thermal runaway.
- Access to the site is very limited, with only one road from a certain point. Whilst recognising this is the current situation with the established COMAH site, LFR would expect this to be rectified with a new build, taking into account prevailing winds. LFR would require alternative access and egress routes to allow safe firefighting operations.
- We would expect, Island Gas, site owner of Welton Gathering Centre, to have been consulted as per the HSE guidance relating to building adjacent to COMAH sites.

National Grid: There are no National Gas Transmission gas assets affected in this area.

Fisher German- Government Pipelines- No representations received to date.

Health and Safety Executive (COMAH Competent Authority):

PADHI Web App- Does not advise against. Contact pipeline operators. If the proposed development is located within a safeguarding zone for a HSE licensed explosives site then please contact HSE's Explosives Inspectorate. Their contact email is Explosives.planning@hse.gov.uk.

The HSE Land Use Planning Web App can be used to find out if a site is within an explosives site zone (as well as in zones for major hazard sites and major accident hazard pipelines). If you require access to the HSE Web App then please contact the Land Use Planning Team (lupenquiries@hse.gov.uk)

If the development is over a major accident hazard pipeline or in the easement around a major accident hazard pipeline, please consult the pipeline operator. **If**

the development involves a new substation or the storage of electrical energy such as in a large battery storage unit and the development is proposed adjacent to a COMAH (Control of Major Accident Hazards) establishment then please consult the operator of the COMAH establishment.

If the development involves a substation or the storage of electrical energy such as in a large battery storage unit and is proposed in the vicinity of a nuclear site the Office for Nuclear Regulation (ONR) does wish to be consulted over such proposals. They can be contacted on ONRLand.Use-Planning@onr.gov.uk

Environment Agency: Environment Agency position The proposed development will only meet the National Planning Policy Framework's requirements in relation to flood risk if the recommended planning conditions (2) are included. Also recommends informatives in the event permission is granted.

Lincolnshire Wildlife Trust: From an ecology perspective the proposal seems perfectly reasonable with the PEA and BNG assessment conducted appropriately. Providing the recommendations for habitat and species mitigation are followed in Table 2 then the development should progress without any undue damage to the natural environment in the immediate vicinity.

LCC Minerals and Waste Team: W8: Safeguarding of Waste Management Sites, of the Lincolnshire Minerals and Waste Local Plan (Core Strategy and Development Management Policies document 2016). This policy safeguards existing and allocated waste management facilities from development which may prevent or prejudice the effective operation of such facilities. The proposed site is located immediately adjacent to a Sewage Works which is safeguarded against incompatible development by policy W8. Sewage works are odorous in their nature therefore sufficient separation from sensitive uses, dwellings or places of work is required to ensure that additional constraints are not placed upon the operation of the sewage works. The proposal also immediately abuts the IGas gathering station. This facility is not specifically identified/safeguarded in the minerals and waste plan, but this is a strategic facility for the supply of hydrocarbons from the Welton Oil Field therefore the agent of change principle set out in the NPPF should be taken fully into account. It is noted that once operational, employees of the BESS will only be on site sporadically and not on a permanent basis, therefore an odour assessment which would be required under Policy W8 to assess the impact of the Sewage Works on the proposed development is not considered necessary in this instance. However, sufficient information should be requested from the applicant to demonstrate that the proposed development would not prejudice or detrimentally impact upon the operation of these neighbouring land uses or cause any other issues/hazards due to proximity. Relevant issues to consider may include access, health and safety (including fire safety/risk), screening/boundary treatments, site buffers, and the need to protect any associated utilities and infrastructure/pipelines. Subject to the District Council taking these matters into account and no objections being raised by the appropriate technical experts consulted, as Minerals and Waste Planning Authority we would have no objections to the proposed development.

LCC Archaeology:

09/05/2024- A programme of pre-determination archaeological evaluation trial trenching was carried out in the proposed site of Battery Energy Storage

System (WLDC planning application 147131). Romano-British archaeological features were recorded to the south of the site indicating that this area was probably on the edge of settlement activity which likely extends further south up the hill. Given the presence of these archaeological remains and the potential for further remains in the southern area outside of the excavated trenches, I recommend that an archaeological strip map and sample (SMS) is carried out in the southern area previously discussed with the applicant's agent and archaeological contractor. This is to record any further archaeology prior to it being impacted by the proposed development.

The proposed cable route running from the main Battery Energy Storage System site to North Greetwell runs through an area of high archaeological potential. The proposed cable route runs past areas where cropmarks of archaeological origin are recorded, as well as alongside a known Roman Road from Lincoln to Burgh le Marsh, in an area where archaeological remains have previously been recorded. I recommend that archaeological monitoring and recording is carried out for the proposed cable route during groundworks to record any surviving archaeological remains prior to their destruction.

These recommendations can be secured through the standard condition wording we recommend for archaeological schemes of works. Please see below the three-part condition wording. Part 1 should be a pre-commencement condition, ensuring that an archaeological Written Scheme of Investigation (WSI)/Specification is approved by the LPA which ensures compliance with the above recommendations. A single WSI addressing both the SMS and archaeological monitoring and recording can be submitted or two separate WSIs. Either way is valid as long as the archaeological mitigation work for the southern area of the main site and the cable route are addressed. The WSI should also link to any relevant construction management plans and ensure that the area designated for SMS is not disturbed until all archaeological works have taken place and a report has been produced. The two remaining parts of the condition wording can be post-commencement conditions which need to adhere to what is set out in the WSI approved in part 1, once this condition is discharged.

WLDC Trees and Landscape Officer:

Potential effect on any trees or hedges on or near the site: There are no protected trees (TPO or conservation area) within the site boundaries. Non-protected trees within or adjacent to the site have been identified within the submitted arboricultural report as 6 individual trees, one group, and three hedgerows.

Individual trees – most of the 6 individual trees are assessed as Category C trees. These are trees of low quality that should not pose a constraint to development proposals. Just two of the trees have been assessed as Category B, which are trees of moderate quality that should be retained if possible. These are T1 field maple and T5 ash which are part of a line of trees adjacent the cable route at the junction of Barfields Lane and the track to the sewage works and site. T1 maple is the tree closest to the proposed cable route and is

proposed to be removed. T5 is at the opposite end of the line of 5 trees and is the furthest way from the proposals so should not be affected, and it is shown on the plans as to be retained.

Tree Groups – One group has been identified, and is a small group of goat willow within the ditch adjacent to the track between Barfields Land and the sewage works/and site. These have been assessed as category C and have been cut back in the past. These are identified for removal.

Hedges – Three hedgerows are listed in the arb survey but the plans only show H2 and H3, both of which are to be retained. The report text informs that H1 is to be removed, but the plan does not clarify where it is located. H1 is of low quality and contains just elder and hawthorn. Hedgerows are 'priority' habitats that should be retained where possible. They provide important wildlife corridors, especially when connected to others. Landscape proposals include a new mixed species native hedgerow near trees T1 to T5, and there is a good variety of species in the proposed native mix bund planting, including 115 field maples. The types of tree protection fencing as shown in the aboricultural report are suitable, and should be used where needed.

Conclusion I have no objections to the proposals in terms of impact to trees and hedges. Landscape proposals will provide compensation for the intended loss of the vegetation identified in the arboriculture report. The proposed planting would provide a more varied species mix and would increase the landscaping at the site.

Relevant Planning Policies and Legislation:
Planning law requires that applications for planning permission must be determined in accordance with the development plan unless material considerations indicate otherwise. Here, the Development Plan comprises the provisions of the Central Lincolnshire Local Plan (adopted in April 2023), the Lincolnshire Minerals and Waste Local Plan (adopted June 2016).

<u>Development Plan</u>

- ***Central Lincolnshire Local Plan 2023 –***

Relevant policies of the CLLP include:
Policy S1: The Spatial Strategy and Settlement Hierarchy
Policy S5: Development in the Countryside
Policy S16: Wider Energy Infrastructure
Policy S21: Flood Risk and Water Resources
Policy S47: Accessibility and Transport
Policy S53: Design and Amenity
Policy S54: Health and Wellbeing
Policy S57: The Historic Environment
Policy S60: Protecting Biodiversity and Geodiversity
Policy S61: Biodiversity Opportunity and Delivering Measurable Net Gains
Policy S66: Trees, Woodland and Hedgerows
Policy S67: Best and Most Versatile Agricultural Land

https://www.n-kesteven.gov.uk/central-lincolnshire/adopted-local-plan-2023

• Draft Reepham Neighbourhood Plan;

NPPF paragraph 48 states that Local planning authorities may give weight to relevant policies in emerging plans according to:

> *(a) the stage of preparation of the emerging plan (the more advanced its preparation, the greater the weight that may be given);*
> *(b) the extent to which there are unresolved objections to relevant policies (the less significant the unresolved objections, the greater the weight that may be given); and*
> *(c) the degree of consistency of the relevant policies in the emerging plan to this Framework (the closer the policies in the emerging plan to the policies in the Framework, the greater the weight that may be given).*

The Reepham Neighbourhood Plan is currently at examination stage (Regulation 17). The examiner is currently considering all representations received from consultation on the final plan submitted and scrutinise the plan against relevant legislation. An examination hearing has recently been held (25/09/2024), however this was only in relation to the specific matters around the proposed housing allocations and does not affect this application.

The policies within the plan can now be afforded **increasing weight**, the most relevant policies are as follows;

Policy 1: Historic Environment

Policy 2: Design of New Development

Policy 11: Important Views and Vistas Reepham Character Area Assessment

https://reepham.parish.lincolnshire.gov.uk/parish-information/neighbouring-planning/1

- ***Lincolnshire Minerals and Waste Local Plan (LMWLP)***

https://www.lincolnshire.gov.uk/planning/minerals-waste

The site is in a Minerals Safeguarding Area and policy M11 of the Core Strategy applies.

Policy W8- Safeguarding of Waste Management Sites also applies here.

National policy & guidance (Material Consideration)

- National Planning Policy Framework (NPPF)

The NPPF sets out the Government's planning policies for England and how these should be applied. It is a material consideration in planning decisions.

The most recent iteration of the NPPF was published in December 2023.

https://www.gov.uk/government/publications/national-planningpolicy-framework--2

- National Planning Practice Guidance (NPPG)

https://www.gov.uk/government/collections/planning-practice-guidance

In particular, NPPG: Renewable and Low Carbon energy provides planning guidance specific to Battery Energy Storage Systems:

https://www.gov.uk/guidance/renewable-and-low-carbon-energy#battery-energy-storage-systems

https://www.gov.uk/guidance/hazardous-substances#Handling-development-proposals-around-hazardous-installations

- National Design Guide (2019)

https://www.gov.uk/government/publications/national-design-guide

- National Model Design Code (2021)

https://www.gov.uk/government/publications/national-model-design-code

Other Relevant Guidance:

National Fire Chiefs Council- Grid Scale Battery Energy Storage System Planning - Guidance for FRS (version 1, 2023):

Document text here (nfcc.org.uk)

Draft NFCC Grid Scale Energy Storage System Planning – Guidance for Fire and Rescue Services (July 2024)
(Consultation closed August 2024)

Draft Grid Scale Energy Storage System Planning Guidance - NFCC

Health and Safety in grid scale electrical energy storage systems:

Health and safety in grid scale electrical energy storage systems (accessible webpage) - GOV.UK (www.gov.uk)

Main Considerations:

- Principle of Development;
- Best and Most Versatile Land / Loss of Agricultural Land;
- Health, Battery Safety, Pollution and Fire Risk;
- Flood Risk and Drainage;
- Visual Amenity inc. Trees and Landscaping;
- Highway Safety/Access;
- Archaeology;

- Residential Amenity;
- Ecology and Biodiversity Net Gain:
- Minerals and Waste:
- Other Matters

Assessment:

Principle of the Development:

Planning law requires that applications for planning permission must be determined in accordance with the development plan, unless material considerations indicate otherwise.

The application site is clearly within the open countryside being separated from nearby settlements by large distances. The proposal would therefore fall under Tier 8 of Policy S1.

With reference to tier 8 (Countryside) Policy S1 of the Central Lincolnshire Local Plan states that; *Unless allowed by:*

a) policy in any of the levels 1-7 above; or
b) any other policy in the Local Plan (such as Policies S4, S5, S34, or S43) or a relevant policy in a neighbourhood plan, development will be regarded as being in the countryside and as such restricted to:
• that which is demonstrably essential to the effective operation of agriculture, horticulture, forestry, outdoor recreation, transport or ***utility services;***
• ***delivery of infrastructure****;*
• renewable energy generation; and
• minerals or waste development in accordance with separate Minerals and Waste Local Development Documents.

It is noted that under criteria b) of the above there is reference to utility services being one of the restrictions allowed within an open countryside location. However, the policy also states that such proposals must be 'demonstrably essential' to its effective operation. Part E of Policy S5 relates to Non-residential development in the countryside and states that proposals for non-residential development will be supported provided that:

a) The rural location of the enterprise is justifiable to maintain or enhance the rural economy or the location is justified by means of proximity to existing established businesses or natural features;

b) The location of the enterprise is suitable in terms of accessibility;

c) The location of the enterprise would not result in conflict with neighbouring uses; and

d) The development is of a size and scale commensurate with the proposed use and with the rural character of the location.

Policy S16 is also applicable here and relates to wider energy infrastructure of the CLLP states that; *Where planning permission is needed from a Central*

Lincolnshire authority, support will be given to proposals which are necessary for, or form part of, the transition to a net zero carbon sub-region, which could include: ***energy storage facilities (such as battery storage or thermal storage);*** *and upgraded or new electricity facilities (such as transmission facilities, sub-stations or other electricity infrastructure.*

However, any such proposals should take all reasonable opportunities to mitigate any harm arising from such proposals, and take care to select not only appropriate locations for such facilities, but also design solutions (see Policy S53) which minimises harm arising.

The application seeks permission for the installation and operation of a battery energy storage system. The proposal will provide a balancing service for electricity. The electricity will be taken from an existing pylon at North Greetwell (c. 3.4km to the west) at low demand times, it will then be stored within the containers and released back into the grid at high demand times.

The key determining factor to identifying the location of a BESS is proximity to available grid capacity. The Distribution Network Operator (DNO) determines where energy generation projects can connect on the network as this is based on complex technical and operational criteria. In this case the DNO identified the point of connection is a pylon located 3.4km to the west of the application site, located in a field to the north of Wragby Road East, as being suitable for such a connection. It is acknowledged that usually a closer distance between the proposed development and the point of connection is preferred. It is considered that the proposal by virtue of its proximity to the existing pylon is acceptable. Also, by virtue of its proposed use, it is considered that an open countryside location, away from residential areas/ sensitive receptors is the most appropriate. Overall, it is considered that the proposal would meet with criteria a of Policy S5. Criteria b, c and d are assessed in the relevant sections within this report.

The NPPF also recognises that the planning system should support the transition to a low carbon future. Paragraph 157 states that;

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

Paragraph 032 of the NPPG states that; *Electricity storage can enable us to use energy more flexibly and de-carbonise our energy system cost-effectively – for example, by helping to balance the system at lower cost, maximising the usable output from intermittent low carbon generation (e.g. solar and wind), and deferring or avoiding the need for costly network upgrades and new generation capacity.*

There is support at local and national level to ensure low carbon infrastructure is supported. The proposal would help to deliver a sustainable energy supply and provide an important balancing service for the national grid. In principle the proposal is supported, subject to an assessment of other material considerations.

Best and Most Versatile Land / Loss of Agricultural Land

Policy S67 states that; *Proposals should protect the best and most versatile agricultural land so as to protect opportunities for food production and the continuance of the agricultural economy.* Development resulting in significant loss of the best and most versatile (BMV) agricultural land will only be supported if:

a) The need for the proposed development has been clearly established and there is insufficient lower grade land available at that settlement (unless development of such lower grade land would be inconsistent with other sustainability considerations); and

b) The benefits and/or sustainability considerations outweigh the need to protect such land, when taking into account the economic and other benefits of the best and most versatile agricultural land; and

c) The impacts of the proposal upon ongoing agricultural operations have been minimised through the use of appropriate design solutions; and

d) Where feasible, once any development which is supported has ceased its useful life the land will be restored to its former use (this condition will be secured by planning condition where appropriate).

Footnote 62 of the NPPF states that; *Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. The availability of agricultural land used for food production should be considered, alongside the other policies in this Framework, when deciding what sites are most appropriate for development*.

Consideration is also given to Natural England advice which states that *"You should take account of smaller losses (under 20ha) if they're significant when making your decision."*

The application has been submitted with an agricultural land quality report which details the results of soil testing on the land. The results of the testing show that the area where the site (built form) will be in an area of 3a Grade Land, which qualifies as BMV. It should also be noted that c. 25% of the site is not currently in agricultural use and is covered in scrub vegetation. The land remaining around the site would still be available for agriculture use. Given that the amount of land to be used for the development would be relatively minor and does not comprise of significant loss of Grade 1 or 2 land, it is not considered that the loss would be significant and would accord with Policy S67 and the provisions of the NPPF.

Health, Battery Safety, Pollution and Fire Risk

For BESS sites applicants are encouraged to consider guidance produced by the National Fire Chiefs Council[1]. The location of such sites are of particular interest to fire and rescue services who will seek to obtain details of the design, and firefighting access and facilities at these sites in their register of site specific risks that they maintain for the purposes of Section 7 of the Fire and Rescue Services Act 2004.

Whilst they are not a statutory consultee, National Planning Practice Guidance (NPPG) encourages local planning authorities *"to consult with their local fire and rescue service as part of the formal period of public consultation prior to deciding the planning application".* In accordance with the guidance, Lincolnshire Fire and Rescue have been consulted throughout consideration of this application.

Initial comments from Lincolnshire Fire and Rescue raised concerns in relation to thermal runway, compatibility with the Star Energy site, the absence of a secondary access for emergency vehicles, and other fire risk matters.

Since the consultation response was received the applicant has submitted an outline Battery Safety Management Plan- Fire Strategy by OWC, which was received by the LPA in June 2024.

The report sets out, in significant detail how the site will be operated with safety management. It includes details on mitigation by design, quality control, monitoring, emergency management, fire strategy, fire incident response and fire safety management.

The NPPG encourages local planning authorities *"to consider guidance produced by the National Fire Chiefs Council when determining the application."* Whilst this is not part of the statutory development plan against which planning decisions must be made, it is a material consideration that may be given weight in the determination of the application.

The National Fire Chief Councils Guidance advises *"A standard minimum spacing between units of 6 metres is suggested unless suitable design features can be introduced to reduce that spacing. If reducing distances a clear, evidence based, case for the reduction should be shown."* The proposed site plan shows that there will be a 3 metre separation distance. Within table 6-1 of the battery safety management plan there is significant detail on relevant design safety features which are considered to justify the 3m separation distances in this case, as follows:

- *Design of the BESS to the UL9540A requirements*
- *Provision of fire fighting water supplies and fire water storage.*
- *Monitoring systems to measure cell voltage, currents and temperatures, where detection of potentially hazardous temperatures or other conditions shall*

[1] Document text here (nfcc.org.uk)

result in the electrical disconnection of the affected BESS container to prevent, detect and minimize the risk of thermal runaway.
• Inclusion of automatic thermal, gas, smoke and fire detection systems that have been certified to meet NFPA 72
• Inclusion of suitable fire suppression system.
• Inclusion of explosion control / deflagration venting in accordance with relevant standards.
• Designing the layout to ensure that firefighting personnel could tackle a fire in any block of units from the internal access track

The proposed design and spacing is considered to be justified from a fire safety perspective. The battery containers are also 10m away from any surrounding proposed vegetation, this is in accordance with the guidance. Given that the battery containers/types are constantly evolving the final battery designs/specifications will be secured by condition prior to their installation.

In relation to water supplies the proposal shows a 228kL water storage tanks, the tank will be located a minimum of 10m from the nearest battery cabinet, which complies with the guidance. The guidance recommends that there is a firefighting supply of 1,900L/minute for a duration of 2 hours. The water storage tank that is incorporated into the design will be sufficient to provide 2 hours' supply of water at the recommended flow rate.

The guidance states that the *'Fire and rescue services may wish to increase this requirement dependent on location and their ability to bring supplementary supplies to site in a timely fashion.'* The fire service has not asked for this in their responses.

The National Fire Chief Council's guidance also states that BESS Sites should have two access points. This is due to the differing directions of winds in the event of a fire and that smoke may stop fire fighters being able to access the site from only one specific point. The applicant has submitted a Unilateral Undertaking (Legal Agreement) to secure that a secondary access point can be made available through the agricultural fields, where the existing tracks are used by farm machinery, in the event of an emergency.

Since the amended information and battery safety plan was provided a re consultation was carried out with Lincolnshire Fire and Rescue service. In summary they state the following;

- *Naturally we offered initial concerns about the BESS being so close to the Welton Gathering Centre, this will continue to form part of our risk gathering and pre incident considerations due to the processes, access etc., but from the evidence provided we accept the controls that will be put in place, so would welcome a visit once work is complete to factor in our emergency response;*
- *We also appreciate the explanation about modern designs aiming to reduce the risk of thermal runaway, due to cell monitoring, cut offs and insurance mitigation due to the spacing between containers.*
- *The alternative access via an emergency exit appeases the point around being able to get a fire vehicle in if there were an incident, allowing for the possibility if one exit was blocked/restricted and*

affording us an attack from either direction depending on water provision and prevailing winds for smoke, access and egress etc.

Neighbouring land use- Concerns have been raised by consultees, including Star Energy, regarding the neighbouring oil refinery (Welton Gathering Site) and how the development will run alongside this existing operation.

The adjacent Star Energy, is understood to be subject to the Control of Major Accident Hazard Regulations 1999 (COMAH) and is a Top-tier COMAH operator. These businesses must consider the potential for a major accident arising from their work activities and describe their approach to controlling the risks in a major accident prevention policy (MAPP).

In considering the land-use implications of the proposed development in proximity to an upper-tier COMAH site, the Local Planning Authority has used the web-based application (PADHI) used by the Health and Safety Executive, who are the COMAH competent authority. This approach follows National planning Practice Guidance[1].

The advise from the COMAH Competent Authority is that they do not advise against the proposed development.

The HSE did advise to consult the COMAH operator.

Star Energy were consulted on the application when the application was first registered in September 2023 they were also consulted on the additional information received in June 2024. Within their comments they have requested that the applicant provides a suite of documents to address the COMAH regulations.

Star Energy *"respectfully suggest that it is for the developer of a scheme in close proximity to a Upper Tier COMAH installation to produce a Risk Reduction Strategy and/or COMAH Safety Report prepared in accordance with Schedule 3 of the 3rd edition Guidance of The Control of Major Accident Hazards Regulations 2015."*

However, the proposed BESS is a non-COMAH site – it is not subject to the COMAH regulations.The submitted Battery Safety Management plan fully details risk reduction measures, taking into account this neighbouring land use. A copy of the final version of the report would also be issued to Star Energy as evidence of a risk reduction plan. With the plan and risk reduction measures in place, it is considered that the sites could run adjacent to each other, safely, for land-use planning purposes.

The COMAH competent body, being the Health & Safety Executive, have been consulted and have responded to say they do not advise against the proposed development being developed here, despite the proximity of the top-tier COHAM operator in proximity.

BESS Fire Incidents- It is understood that best practice for managing a fire event is for the Fire Services to let the container burn from a safe inaccessible distance. In relation to the smoke plume from burning lithium-ion batteries, the toxicity of the fumes from a burning BESS are generally accepted as being

[1] https://www.gov.uk/guidance/hazardous-substances#Handling-development-proposals-around-hazardous-installations

comparable to those from burning diesel or petrol vehicles. There would be more hydrofluoric gas, but this is highly reactive, and residues have not been found in the analysis of fire incidents at BESS sites. There is no evidence of contamination or high concentrations of toxic gases from either the limited number of BESS fires that have taken place or in laboratory assessments, including large-scale tests by a leading expert in the field. The only recorded BESS incident in the UK at Carnegie Road, Liverpool in 2020 which led to no damage to the environment or any personal injury. The Hazardous Materials Environmental Protection Officers undertook a comprehensive assessment following the event and did not record any high concentrations of toxic gases. The key lessons learned detailed within the significant incident report is that information should be on site and accessible to emergency responders in the event of an incident. Clear warnings, Boxes containing site information, emergency contact numbers, and installation identification numbers are all recommended in order to help emergency responders.

Water contamination- Concerns have been raised in relation to contamination of nearby water courses in the event of a battery fire. The battery containers will have a low earth bund around edge of the compound, which will contain any water used in the event of a fire. Once extinguished, the water remains on site until it can be tested. If no contaminants are found within the water then it can be released into the surface water system via a valve. If the water is found to be contaminated it is taken away from the site and disposed of appropriately.

Safety of batteries- Factory Acceptance Testing (FAT) will be conducted prior to the transport of the energy storage system to site to aid the detection of any faults in the system and reduce the likelihood of defective materials entering the Site. Following the installation of the energy storage system, the installation will only be accepted via Site Acceptance Testing (SAT) and commissioning testing. The purpose of this testing is to identify any damage that may have been sustained during transportation, ensure that the system is installed properly, and that the battery management and protection systems are operating properly. Any system installed on-site will be compliant with the UL certifications and large scale fire testing requirements (safety standards). This will ensure the installed BESS cabinets contain cells and modules that have been tested against thermal runaway propagation or fire spread between cabinets

Subject to condition that a final Battery Safety Management Plan/ Fire Strategy is submitted and approved in writing prior to the operation of the site, the proposal is considered to be acceptable in terms of fire safety and would accord to the guidance produced by the National Fire Chiefs council. It is considered to meet with the best practice proposed by the National Planning Practice Guidance and policy S16 which requires that proposals should take all reasonable opportunities to mitigate any harm arising from such proposals.

In Summer 2024, the National Fire Chief's Council undertook consultation on a draft update to their Guidance. As this has yet to be formally adopted by the NFCC, having taken into account the consultation responses, it has not yet superseded version 1 at the time of writing and should only carry limited weight as a material consideration. Nonetheless, it continues to advise achieving suitable access and adequate water supplies. In terms of spacing between BESS, it no longer prescribes a distance but advises *"Adequate separation between the BESS enclosures to ensure that the radiant heat from a thermal event in one BESS will not trigger a secondary event."*

The comments and concerns from Cllr Bridgwood are noted. Reference is made to guidance documents on BESS installations , the need for a fire risk assessment by an appropriate person, and the dimensions of the containers exceeding those recommended.

As discussed above, the applicant has submitted an outline Battery Safety Management Plan- Fire Strategy, a final version of this statement is recommended to be secured by condition. It is considered that the statement has been completed by a competent person and the LPA has consulted with the Lincs Fire & Rescue who have reviewed and commented. Also detailed in the above section are the reasons for why the battery container sizes and separation distances are considered to be appropriate, taking into account the National Fire Chiefs Council guidance.

Flood Risk and Drainage

Part of the site lies in flood zones 2 (medium probability) and 3 (high probability). In relation to flood risk Policy S21 of the CLLP states that all development proposals will be considered against the NPPF, including application of the sequential and, if necessary, the exception test.

The application has been submitted with a Flood Risk Assessment and Drainage Strategy by KRS Enviro dated June 2023.

Part of the access route to the site, where the drainage ditch lies is within Flood Zones 2 and 3 as defined by the Environment Agency's Flood Risk Maps for planning.

The battery containers and associated ancillary development is outside of the flood zone areas. In terms of the sequential approach to development this has been applied by locating the more vulnerable elements of the development in the lowest risk areas. There will also be a 'no build zone' which will provide a 9m ditch maintenance zone. It, therefore, should be noted that the risk of fluvial flooding to the Site is shown to not occur on the operational area of the Site and there will be no bund or fence in the higher risk flood zones. The operational area of the site will be located within Flood Zone 1 with only the access track on the north bank of the drainage ditch being located within Flood Zones 2 and 3. The majority of the site and the site access is shown to be located within Flood Zone 1. This approach is considered to be appropriate.

The proposed surface water drainage scheme (based on SUDS principles) will comprise of the following;

- Permeable surfaces to be used consisting of crushed stone and grassed areas;
- A surface water attenuation storage pond in the form of a detention basing;
- Runoff rates will restricted to 5.00 l/s before discharge off to the application site into the adjacent Beck.

The adoption of a SuDS Strategy for the site represents an enhancement from the current conditions as the current surface water runoff from the Site is uncontrolled. The submitted FRA/drainage strategy demonstrates that a scheme can be developed that does not increase the risk of flooding to any nearby properties and development further downstream. Lincolnshire County Council as the Lead Local Flood authority for major applications have reviewed

the drainage scheme and have confirmed that the scheme is sustainable and suitable for the proposals.

Flood Resilient layout and design- Even though the battery containers are to be located outside of the flood zones they will be raised on concrete pads c.300mm above ground level. All buildings / structures (are of hard-wearing materials and will be sealed against water ingress. The floor of the buildings will be constructed from concrete hardstanding which will be resilient to floodwater.

Concerns have been raised in relation to the absence of foul water disposal facilities within the welfare cabins. It has been confirmed with the agent for the application that there will be no foul drainage connection required, given the short periods of time that maintenance workers would be at the site.

Overall, the proposal is considered to be acceptable in terms of flood risk and drainage, subject to conditions to secure a detailed drainage design, and would accord to the aims of Policy S21 and the provisions of the NPPF.

Visual Amenity

Policy S53 of the CLLP requires that *'all development proposals must take into consideration the character and local distinctiveness of the area (and enhance or reinforce it, as appropriate) and create a sense of place which demonstrates a sound understanding on their context. As such, and where applicable, proposals will be required to demonstrate, to a degree proportionate to the proposal, that they are well designed in relation to siting, height, scale, massing, and form. Important views into, out of and through a site should also be safeguarded.'*

Criteria d, Part E of Policy S5 states; *d) The development is of a size and scale commensurate with the proposed use and with the rural character of the location.*

Policy S16 of the CLLP states that; *wider energy infrastructure should take all reasonable opportunities to mitigate any harm arising from such proposals and take care to select not only appropriate locations for such facilities, but also design solutions which minimises harm arising.*

Policy 2- Design of New Development of the Draft Reepham NP gives a set of criteria that new development should adhere to. The policy details that the NP area is characterised into different areas, each of which have their own Design Codes. The application site falls within the 'Open Countryside' character area. The Design Code recognises that within these areas the following is applicable: *Development proposals for this character area would be of either an agricultural or energy production nature.*

Policy 11- Important Views and Vistas of the Draft Reepham NP details views in, out of and around Reepham. There are no notable views that overlook this application site, view 4.4 is the closest to the site, this is detailed as 'views over the Beck'.

In terms of built form, the structures are relatively low lying in their scale. The battery containers themselves are set out in two adjacent rows and measure c. 18.3m in length, 2.4m in width with an overall height of c.3m. The tallest element at the site will be the substation at c. 5.8m in overall height. All of the structures on site will be finished in a dark green colour and will be constructed from either galvanised steel or corrugated corten steel. The applicant has advised that

battery technology is constantly evolving and changing, further incorporating safety features. Therefore, there may be some slight design changes to the battery containers prior to their installation, this will not change the energy capacity of the site which will not exceed 53MVA. It is considered necessary to condition the final designs to be agreed in writing prior to installation on site. There are no visual concerns with the cabling route to the connection point given that it will be located underground.

The site is located between two industrial land uses (Welton Gathering Centre/Igas site and the Sewerage Treatment Works), the site is not within any local or national designations.

The application has been submitted with a full and comprehensive Landscape Visual Impact Assessment (LVIA) to Level 3- Guidelines for Landscape and Visual Assessment. Within the LVIA a range of viewpoints informed by a Zone of Theoretical Visibility (ZTV) have been included. The ZTV illustrates that the limited visibility on the landscape of the surrounding arable fields between Sudbrooke to the immediate north (c. 600m) and Reepham to the southwest (> 600m+). The key visual receptors within the area would mainly consist of the users of the nearby public rights of way and road network. Residential properties are also considered to have a high sensitivity to visual change, there are six properties within 700m of the site.

The LVIA details that the visual assessment considered the residential receptors within 750m of the site, they were assessed to not have anything more than glimpsed and partial views which would not be directly overlooking the site and therefore not give rise to substantial visual effects.

Direct views in towards the site are limited to the location of Viewpoint 4, representative of the nearest point from Barfields Lane a public bridleway within the local PRoW network. This existing route also forms part of the access route from which it is proposed to provide an additional access track for the site compound adjacent to the existing Sewage Works. 8.1.8 Of the other viewpoints assessed none were found to experience anything above a minor level of visual effect. In general when set beyond the site's immediate setting (>500m+) these effects then reduce to negligible.

The main visual impacts arising from the proposal would be during the construction period which would take approximately 6 months, the LVIA considers these impacts to be of a medium magnitude of change. Upon completion of the BESS the impacts are considered to be of a low magnitude. In considering the site and its immediate setting this would result in minor level of impacts upon the landscape.

With reference to the evaluation of the landscape effects a Low landscape sensitivity and a Medium magnitude of change during the construction phase, reducing to Low magnitude at Completion. When considering the site and its immediate setting this would result in a Minor level of landscape effect, which would remain the case throughout the project's lifecycle (from completion to Year 10 and up to decommissioning), which are overall 'Not Substantial' effects.

The two existing sites that lie adjacent to the application site already provide some additional screening from the surrounding open countryside. The proposed physical development is low lying and within the landscape and would not be unduly prominent. The conclusions within the LVIA are agreed with and

overall, it is not considered that there would be any substantial visual effects on the character of the area that would warrant refusal of the application on visual impact grounds.

Proposed Landscaping

In terms of proposed landscaping a 1.5m high landscape bund (at a 1:3 gradient) will be constructed from the site's stripped back soils following the creation of development platform to the south, east and west sides of the compound. The bunding will provide additional screening from the north, west and southern edges of the proposal site, will help to retain the aesthetic aspect of the baseline landscape. Only direct views from the north within the site's immediate setting on the track will get views of the development as a whole. The outer side of the bund will be planted with a tall planting mix comprising of native shrubs and small tree species.

It is considered that the landscape proposals will provide further screening of the development from views within the surrounding countryside. The bund will also provide compensation for the intended loss of the vegetation identified in the arboriculture report. The proposed planting would also provide a more varied species mix and would also help to enhance biodiversity at the site. A suitable landscaping condition will ensure that the planting is done in a timely manner and is replaced if any planting were to die.

Overall, it is considered that the proposal would not cause visual harm to the surrounding countryside and would accord to the aims of policies S5, S16 and S53 of the CLLP and the Draft Reepham NP policies.

Trees

The application has been submitted with an Arboricultural Assessment by fpcr dated June 2023.

There are no protected trees (TPO or conservation area) within the site boundaries. Non-protected trees within or adjacent to the site have been identified within the submitted arboricultural report as 6 individual trees, one group, and three hedgerows

Most of the 6 individual trees are assessed as Category C trees. These are trees of low quality that should not pose a constraint to development proposals. Just two of the trees have been assessed as Category B, which are trees of moderate quality that should be retained if possible. These are T1 field maple and T5 ash which are part of a line of trees adjacent the cable route at the junction of Barfields Lane and the track to the sewage works and site. T1 maple is the tree closest to the proposed cable route and is proposed to be removed.

The application has been reviewed by the Councils Tree and Landscape Officer who has no objections to the proposals in terms of impacts to trees and hedges.

<u>Highway Safety/Access</u>

Policy S47 of the CLLP states that; *Development proposals which contribute towards an efficient and safe transport network that offers a range of transport choices for the movement of people and goods will be supported.*

Criteria b, Part E of Policy S5 states: *b) The location of the enterprise is suitable in terms of accessibility;*

The site is currently accessed from Barfields Lane to the north west by a private track that serves the sewerage treatment plant, through a field and an existing bridge over the Beck. The application proposes a new crushed stone access track, directly adjacent (east) to the one that serves the sewerage works. There will be access improvements where the track meets with Barfields Lane and a temporary bridge will be constructed over the drainage ditch crossing to allow for HGV's to access the site during the construction period, this will be removed once construction is complete.

During the construction period there will of course be numerous additional comings and goings to and from the site. The construction period is estimated to last approximately 6 months, the below table has been submitted to show the estimated number of vehicle movements per week.

Table 4.1: Indicative Vehicle Deliveries during Construction Phase

	Activity	Phase	Estimated Number of Vehicles Associated with Activity
1	Site Prep (vegetation strip, levelling and bund/pond creation)	Weeks 1 – 2	40
2	Construction of parking compounds, turning areas, tracks and bases for containers	Weeks 3 – 6	60
3	Excavation of trenches for electric cabling, erection of fencing	Weeks 7 – 9	15
4	Installation of transformer equipment, substation	Weeks 10 – 12	20
5	Installation of electricity cabling, substation	Weeks 13– 15	15
6	Installation of batteries, substation	Weeks 16 – 18	60
7	Installation of remaining ancillary equipment, landscaping	Weeks 19 – 24	30
8	Commissioning	Weeks 25 - 26	5
	Total		**245**

The application has been submitted with a transport assessment which gives baseline survey results on traffic movements at two points close to where the

proposed site access will be located. Baseline survey results show that there are relatively low levels of vehicle movements along Barfields Lane.

It is recognised that the construction phase of the development will increase the total number of vehicles on the local highway network and in particular the number of HGVs, however, the increase in relative number terms is minimal and when viewed against the light background traffic on Barfields Lane, which recorded an average of 132 two-way movements, it is not considered that the modest increase during the construction period will have a detrimental impact upon the operation of the highway network in the vicinity of the site. All staff (approx. 20 during construction) parking during construction works will be within the site compound with no need to park on the public highway. Once in operation the BESS is unmanned (operated remotely) and traffic movements to and from the site will be minimal. Visits to site will be for maintenance and inspections only.

With regard to the cabling route, much of this would be buried underneath highway verges/land mainly along the A158 to the connection point at the Pylon in North Greetwell. Again, this element has been reviewed by the Highways Authority and has been found to be acceptable in principle, separate consent will need to be sought for works on the highway and along the highway verge.

The application has also included a legal agreement to ensure that a secondary emergency access can be utilised in the event of an emergency.

Overall, the proposal would not be expected to cause detrimental highway safety issues, subject to conditions and further approvals outside the control of this application and would accord to Policy S47 of the CLLP as well as the provisions of the NPPF.

Archaeology

In relation to archaeology Policy S57 of the CLLP states that: *Development affecting archaeological remains, whether known or potential, designated or undesignated, should take every practical and reasonable step to protect and, where possible, enhance their significance. Planning applications for such development should be accompanied by an appropriate and proportionate assessment to understand the potential for and significance of remains, and the impact of development upon them.*

Point 3 of Policy 1 of the Draft Reepham Neighbourhood Plan states that development proposals must respect archaeological, historical and natural assets within the Parish.

The initial application submission was submitted with an Archaeological desk based assessment by

Following initial comments from the Historic Environment Officer at Lincolnshire County Council a series of predetermination trial trenches have been carried out. During the trial trenching exercise some Romano-British archaeological features were recorded to the south of the site indicating that this area was

probably on the edge of settlement activity which likely extends further south up the hill.

Following on from the results of the trial trench exercise/final report (April 2024) and given that some archaeological features were found, the Historic Environment Officer has recommended that there is a SMS (strip map and sample) carried out in the main southern section of the site. This is to record any further archaeology prior to it being impacted by the proposed development. This will be secured by pre commencement condition which will request that a WSI and specification is agreed in writing to ensure any further archaeological features found during construction are adequately recorded.

The applicant has confirmed their agreement to this pre commencement condition. The Historic Environment Officer also requested that a full WSI is submitted for the cabling route from the main part of the site to the pylon. The cable route, where possible will be laid within the highway verge, and in most instances will be laid where the re are existing utility services. Much of the siting of the cables along the highway will be down to agreement from Lincolnshire County Council. It is not considered reasonable to request that the applicant submits a WSI or archaeological monitoring for this part of the site. Overall, subject to conditions, the proposal is considered to be acceptable in terms of archaeology and would accord to Policy S57 and the provisions of the NPPF.

Residential Amenity

Policy S53 of the CLLP requires that development proposals do not have an unacceptable impact on residential amenity. This includes considerations such as compatibility with neighbouring land uses, noise, vibration, odour, and the creation of safe environments amongst other things.

Criteria c, Part E of Policy S5 states *c) The location of the enterprise would not result in conflict with neighbouring uses; and*

Firstly, in relation to fire safety risks, this has been addressed in the relevant section of this report. In terms of nearby residential settlements these are as follows:

- Reepham- c. 640 to the south west of the application site.
- Sudbrooke- c.600m to the north the application site.
- Langworth- c. 1.8km to the north east of the application site.
- Nettleham- c.2.4km to the north west of the application site.

The nearest residential receptor to the application site are located on Barfields Lane, c. 450m to the north east of the application site. Given the separation distances it is not considered that the proposal would cause any unacceptable amenity concerns in relation to dominating impacts.

Noise

The application has been submitted with a noise assessment by Noise Assess-Acoustics, Noise and Vibration Consultants dated July 2023. There were three residential receptors used in the assessment as shown on the plan below (taken from the submitted report):

The normal criteria for indoor sound levels in residential developments (BS8233) is 35dB during the day and 30dB at night, with short duration levels not exceeding 45dB at night in bedrooms. The report includes survey results from existing (baseline) noise levels, the readings were taken during the day and night. The noise-generating items on the BESS containers will be the HVAC units used for cooling. There will be two HVAC units on each end of each BESS container making 4 per container. There will therefore be 64 BESS HVAC units. Each pair of BESS containers will be served by an inverter unit and a transformer. The predicted noise levels have been assessed in accordance with BS4142, the assessment concludes that there will be a low noise impact arising from the BESS and thus no additional noise mitigation measures are proposed.

The modelling dB level results are as follows;

Modelling Results

4.9 The calculated noise levels are given below.

Table 5. Calculated noise levels.

Receptor	dBL_{Aeq} Day	dBL_{Aeq} Night
R1	16.4	20.9
R2	14.8	19.3
R3	19.9	23.1

The BS4142 assessment dB levels are as follows;

4.12 The BS4142 assessment is given below.

Table 6. Daytime BS4142 assessment.

Receptor	R1	R2	R3
Specific noise level, dBL_{A90}	16	15	20
Tonal Penalty, dB	0	0	0
Impulsive/Intermittency penalty, dB	0	0	0
Rating, dB	16	15	20
Background noise level, dBL_{A90}	41	41	41
Rating - background, dB	**-25**	**-26**	**-21**

Table 7. Night-time BS4142 assessment.

Receptor	R1	R2	R3
Specific noise level, dBL_{A90}	21	19	23
Tonal Penalty, dB	0	0	0
Impulsive/Intermittency penalty, dB	0	0	0
Rating, dB	21	19	23
Background noise level, dBL_{A90}	27	27	27
Rating - background, dB	**-6**	**-8**	**-4**

4.13 The above assessment results normally indicate a low noise impact. BS4142 recommends that the noise should also be judged in context as discussed below.

The development is therefore considered to be acceptable in terms of noise impacts on nearby sensitive receptors.

The submitted Design and Access statement details that hours of construction will be between 0800 to 1800 hours Monday to Friday and 0800 to 1600 hours on Sundays. Deliveries will also be done during these times. The times of construction are considered to be acceptable given the siting away from residential properties.

Overall, it is considered that the proposal would not cause harm to residential amenity and would accord to the aims of the policies within the Development Plan.

<u>Ecology and Biodiversity Net Gain</u>

The application has been submitted with a Preliminary Ecological Appraisal by fpcr dated July 2023. The appraisal details the following in relation to species at or nearby the site.

Amphibians- No suitable aquatic breeding habitat was present within the site or within 250m of the site boundary. Suitable terrestrial habitat is limited to the small area of other neutral grassland to the south of the wet ditch. This would offer some opportunities for foraging and shelter but is unlikely to be used due to its isolation away from suitable aquatic habitat.

Birds- The habitats at the site likely provides some foraging and nesting opportunities for species associated with farmland habitats including ground nesting species. The habitats on the site are common and widespread in the surrounding landscape and the site is unlikely to support an ecologically important population of a single species or an important assemblage of bird species. The proposed works at the site, which will involve vegetation clearance and some tree loss which could impact individual nesting birds. To reduce the likelihood of causing damage or destruction of active nests, vegetation clearance should be avoided between March and August.

Reptiles- Grass snake records were returned within the data search results with the nearest record 350m north-west of the site on the opposite side of Wragby Road. Habitat suitability for this, and other reptile species, is limited to the small area of neutral grassland to the south of the wet ditch. Habitat clearance that includes removal of potential hibernation features, such as earth mounds, should avoid the hibernation period where individual animals would at their most vulnerable (October-March). Clearance should be preceded by a walkover by a suitably qualified ecologist and followed by multiple progressively shorter cuts with a walkover between each cut to search for individual animals.

Bats- Several bat records were returned within the search within 1km of the Site. Two trees with low suitability to support roosting bats were present in the northern hedgerow and are proposed for removal. The site is therefore unlikely to support an ecologically important population or assemblage of bat species. The ditches that are adjacent to the site form part of a larger network of linear water features extending 4.5km west to the edge of Lincoln and 1.8km east where it branches and forms connections into the wider landscape. This ditch is likely to be used by commuting and foraging bats. This foraging and commuting could be impacted by artificial lighting. Lighting will only be present during the construction phase. Any artificial lighting should avoid light spill into any of the adjacent habitats including the ditches and also any of the retained and newly created habitats.

Water Vole- Water vole records were returned in the data search with the nearest record being 770m north of the site. No suitable habitat we present within the site boundary, however, towards the south of the site, the wet ditch, provides suitable habitat for water vole to burrow, forage and shelter and is connected to a wider ditch network. For the purpose of this assessment, water vole is considered to be potentially present in this ditch and mitigation in the form of avoidance has been provided. The site proposals have been designed to avoid impacts on this species.

Mammals- Other- Records for both hedgehog and brown hare were returned in the data search. These species both can be present in arable landscapes and therefore could be present onsite. The site is unlikely to support important populations of either species.

The report concludes various mitigation measures to ensure that the ecological features of the site and protected species are protected during construction and operation (Pages 16- 17 of the report). The report does not recommend that any further survey work needs to be carried out. A condition will ensure that the works are carried out in accordance with the mitigation measures.

Biodiversity Net Gain- The application was submitted prior (October 2023) to the implementation of the legislative requirement to provide the 10% BNG and therefore falls to be considered against Policies S60 and S61 of the Central Lincolnshire Local Plan.

Policies S60 and S61 of the CLLP state that;

All development should:
a) protect, manage, enhance and extend the ecological network of habitats, species and sites of international, national and local importance (statutory and non-statutory), including sites that meet the criteria for selection as a Local Site;
b) minimise impacts on biodiversity and features of geodiversity value;
c) deliver measurable and proportionate net gains in biodiversity in accordance with Policy S61; and
d) protect and enhance the aquatic environment within or adjoining the site,

including water quality and habitat.

Following application of the mitigation hierarchy, all development proposals should ensure opportunities are taken to retain, protect and enhance biodiversity and geodiversity features proportionate to their scale, through site layout, design of new buildings and proposals for existing buildings with consideration to the construction phase and ongoing site management.
All qualifying development proposals must deliver at least a 10% measurable biodiversity net gain attributable to the development. The net gain for biodiversity should be calculated using Natural England's Biodiversity Metric.

The application has been submitted with a completed Metric and Ecological Appraisal. The Site has a current biodiversity value of 6.27 habitat units and 0.10 hedgerow units. Post development the biodiversity value of the site will be 7.88 (25.79% gain) habitat units and 0 (100% loss) hedgerow units. A net gain of above 10% can be achieved for habitats onsite with the current site design. Hedgerow creation has been proposed by planting 33m of hedgerow adjacent to the site connected to an existing hedgerow. This will result in an increase of 0.11 hedgerow units and an overall hedgerow gain of 10.46%. Including both onsite and offsite areas, the proposed development will result in a 25.79% gain in habitat units and a 10.46% gain in hedgerow units. The loss of the modified grassland and cereal crops is offset by the creation of other neutral grassland and mixed scrub.

An appropriately worded condition will require the submission of a 30-year Habitat Management Plan to be approved in writing prior to the commencement of development. Overall, the proposal would accord to the aims of Policies S60 and S61 of the CLLP.

Minerals and Waste

The site lies to the south east of an existing sewage treatment works. Policy W8: Safeguarding of Waste Management Sites of the Lincolnshire Minerals and Waste Local Plan relates to the safeguarding of existing waste management facilities from development which may prevent or prejudice the effective operation of such facilities.

As detailed in the relevant section of this report it is considered that the submitted outline Battery Safety Management Plan adequately addresses how the site will operate safely and not prejudice the running of the neighbouring facilities in principle subject to a final version being submitted prior to commencement of development.

Other Matters

Length of Consent- There is no government-imposed limit on the lifetime of BESS set out in any national guidance. The applicant has advised that they are not seeking a temporary consent, it will be in permanent operation. It is considered necessary to condition a decommissioning and restoration plan to be submitted when the site ceases storing energy for a period of 6 months or more.

Battery Lifetime- Given the permanent consent sought, it is recognised that the batteries themselves will need to be replaced during the lifetime of the proposal. Most up to date technology allows batteries for run for approximately between 13-15 years, depending on how many cycles per day are carried out. Batteries would be recycled in accordance with European Directives and in most cases between 50-60% of the materials can be recycled and re used.

The Environment Agency's informatives also provide guidance on battery disposal.

Conclusion and reason for decision: The application has been considered against policies Policy S1: The Spatial Strategy and Settlement Hierarchy, Policy S5: Development in the Countryside, Policy S16: Wider Energy Infrastructure, Policy S21: Flood Risk and Water Resources, Policy S47: Accessibility and Transport, Policy S53: Design and Amenity, Policy S54: Health and Wellbeing, Policy S57: The Historic Environment, Policy S60: Protecting Biodiversity and Geodiversity, Policy S61: Biodiversity Opportunity and Delivering Measurable Net Gains, Policy S66: Trees, Woodland and Hedgerows, Policy S67: Best and Most Versatile Agricultural Land of the Central Lincolnshire Local Plan 2023, policies M8 and M11 of the Lincolnshire Minerals and Waste Core Strategy in the first instance as well as the guidance within the NPPG and provisions of the NPPF. Increasing weight has also been given to the policies within the Draft Reepham Neighbourhood Plan. Consideration has also been given to the National Fire Chiefs Council guidance as is encouraged by NPPG: Renewable and Low Carbon Energy.

In light of this assessment the proposal is considered to be supported by local and national planning policy and would help contribute toward a low carbon future. The impacts on the landscape and residential amenity have been found to be acceptable. There would be no adverse impact on highway safety matters are considered to be acceptable. Matters of fire risk and safety have been adequately addressed within the application submission. Archaeology and drainage matters are also considered to be acceptable subject to conditions. The application is therefore recommended for approval, subject to conditions and a legal agreement to secure the use of a secondary access in the event of emergencies.

Decision Level: Committee

RECOMMENDED CONDITIONS:

Conditions stating the time by which the development must be commenced:

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

Reason: To conform with Section 91 (1) of the Town and Country Planning Act 1990 (as amended).

Conditions which apply or require matters to be agreed before the development commenced:

2.No development shall take place until a Detailed Fire Safety and Battery Management Plan based on the principles within the Outline Plan that has been submitted with the application have been submitted to and approved in writing by the Local Planning Authority. The Plan must prescribe measures to facilitate safety during the construction, operation and decommissioning of the battery storage system. The Detailed Fire Safety and Battery Management Plan shall be implemented in accordance with the approved details.

Reason: In the interests of fire and public safety and the impacts on the environment.

3.No development shall take place until a Construction Management and Method **Statement** has first been approved in writing by the Local Planning Authority. **The Statemen**t shall indicate measures to mitigate the adverse impacts of vehicle

activity and the means to manage the drainage of the site during the construction stage of the permitted development. It shall include;

- the phasing of the development to include access construction;
- the on-site parking of all vehicles of site operatives and visitors;
- the on-site loading and unloading of all plant and materials;
- the on-site storage of all plant and materials used in constructing the development;
- wheel washing facilities;
- the routes of construction traffic to and from the site including any off-site routes for the disposal of excavated material and;
- strategy stating how surface water run off on and from the development will be managed during construction and protection measures for any sustainable drainage features. This should include drawing(s) showing how the drainage systems (temporary or permanent) connect to an outfall (temporary or permanent) during construction.
- Details of the temporary bridge to be installed during the construction period and at what point it will be removed.
- Details of temporary lighting to be used.

The development shall only proceed in accordance with the approved statement.

Reason: In the interests of the safety and free passage of those using the adjacent public highway and to ensure that the permitted development is adequately drained without creating or increasing flood risk to land or property adjacent to, or Downstream of, the permitted development during construction.

4.No development shall take place until a written scheme of archaeological investigation for the SMS (strip map and sample) for the southern part of the application site has been submitted to and approved by the Local Planning Authority. This scheme should include the following and should be in accordance with the archaeological brief supplied by the Lincolnshire County Council Historic Environment advisor on behalf of the Local Planning Authority:

1. An assessment of significance and proposed mitigation strategy (i.e. preservation by record, preservation in situ or a mix of these elements).
2. A methodology and timetable of site investigation and recording
3. Provision for site analysis
4. Provision for publication and dissemination of analysis and records provision for archive deposition
5. Nomination of a competent person/organisation to undertake the work
6. The scheme to be in accordance with the Lincolnshire Archaeological Handbook.

Reason: to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact and to make this evidence (and any archive generated) publicly accessible.

5.Prior to the commencement of the development, a 30-year Biodiversity Net Gain Management and Monitoring Plan shall be submitted to and approved in writing by the Local Planning Authority. This shall include the following details:

- Details of the size, species, planting arrangement and position of all trees, hedgerows and other vegetation to be planted in accordance with the details in the submitted Ecological Appraisal

by fpcr dated July 2023.

- Details of boundary treatments (including boundaries within the site) and hardstanding. The development shall be carried out in accordance with the approved scheme.

Reason: To ensure that the biodiversity net gain measures are maintained for a 30-year period and a landscaping scheme is implemented to enhance the development in accordance with the NPPF and Policies S53, S60 and S61 of the Central Lincolnshire Local Plan.

6.No development shall take place until a detailed scheme for the disposal of surface waters have been submitted to and approved in writing by the Local Planning Authority. The development shall only be carried out in accordance with the approved details.

Reason: To ensure adequate drainage facilities are provided to serve the development in accordance with Policy S21 of the Central Lincolnshire Local Plan.

Conditions which apply or are to be observed during the course of the development:

7.The archaeological site work referred to in condition 4 shall be undertaken only in full accordance with the approved written scheme. The applicant will notify the planning authority of the intention to commence at least fourteen days before the start of archaeological work in order to facilitate adequate monitoring arrangements. No variation shall take place without prior consent of the local planning authority.

Reason: to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact and to make this evidence (and any archive generated) publicly accessible.

8. With the exception of the detailed matters referred to by the conditions of this consent, the development hereby approved shall be carried out in accordance with the following drawings:

- Proposed Site Layout WB1001/14/03 1
- Fire Water Tank Details WB1001 14 18 R0
- Welfare Cabins WB1001/14/09 0 - Welfare
- Cabin Details WB1001/14/09 1
- Switchgear cabin details WB1001/14/10 0
- Switchgear cabin details WB1001/14/10 1
- Landscaping bund and planting plan WB1001/09/05 0
- Transformer and inverter details WB1001/14/08 0
- DNO Substation Details WB1001/14/12 0
- DNO Substation Details WB1001/14/12 1
- Paladin Mesh Fencing Details WB1001/14/14 0
- CCTV Details WB1001/14/06 0
- Battery Container Details WB1001/14/07 0

- Proposed Cable Route WB1001/14/15 0

- Sectional View WB1001/14/05 0

- 132kV Substation Details WB 1001/14/13 0

- Planning application boundary sheet 1 of 2 WB1001/14/2A 0

- Planning application boundary sheet 1 of 2 WB1001/14/2B 0

- Site Location Plan WB1001/14/01 0

- Spares and Storage Container Details WB1001/14/11 0

- Spares and Storage Container Details WB1001/14/11 1

- Proposed Pond Details WB1001/14/16 0

The works shall be carried out in accordance with the details and materials shown on the approved plans and any other document forming part of the application.

Reason: To ensure the development proceeds in accordance with the approved plans.

9. Notwithstanding the battery container plans referred to in condition 8 of this consent, if an alternative battery design is to be installed on site, prior to their installation, full details, including scaled plans shall be submitted to and approved in writing by the Local Planning Authority. The development shall only proceed in accordance with the approved plans.

Reason: In the interests of visual amenity to accord with Policy S53 of the Central Lincolnshire Local Plan.

10.The development hereby permitted shall proceed in strict accordance with the Mitigation measures set out within Section 5 (Pages 16-17) of the Ecological Appraisal by fpcr dated July 2023.

Reason: To protect and enhance the biodiversity value of the site to accord with the National Planning Policy Framework and policy S66 of the Central Lincolnshire Local Plan.

11. The development hereby permitted shall be carried out in accordance with the tree protection measures as detailed within the Arboricultural Report by fpcr dated June 2023. The protection measures shall remain in place during the construction period.

Reason: In the interests of protecting the trees to be retained on the site in accordance with policy S66 of the Central Lincolnshire Local Plan 2023.

12.The development shall be carried out in accordance with the submitted flood risk assessment ref: 'KRS.0297.048.R.001.C', dated June 2023, prepared by 'KRS Envrio' and the mitigation measures details in section 5.0 'Risk Management'.

The mitigation measures shall be fully implemented prior to occupation and subsequently in accordance with the scheme's timing/phasing arrangements. The measures detailed shall be retained and maintained thereafter throughout the lifetime of the development.

Reason: To reduce the risk of flooding to the proposed development in accordance with Policy S21 of the Central Lincolnshire Local Plan 2023.

Conditions which apply or relate to matters which are to be observed following completion of the development:

13.A copy of the final report referred to in condition 4 will be submitted within three months of the work to the Local Planning Authority for approval (or according to an agreed programme). The material and paper archive required as part of the written scheme of investigation shall be deposited with an appropriate archive in accordance with guidelines published in The Lincolnshire Archaeological Handbook.

Reason: to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact and to make this evidence (and any archive generated) publicly accessible.

14.All planting, seeding or turfing comprised in the approved details of landscaping as required by condition 5 shall be carried out in the first planting and seeding season following the occupation of the building(s) or the completion of the development, whichever is the sooner; and any trees or plants which within a period of 5 years from the completion of the development die, are removed, or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species, unless the Local Planning Authority gives written consent to any variation.

Reason: To ensure that an approved landscaping scheme is implemented in a speedy and diligent way and that initial plant losses are overcome, in the interests of the visual amenities of the locality and occupiers of adjacent buildings and in accordance with Policies S53, S60 and S61 of the Central Lincolnshire Local Plan.

15.The constructed roads hereby approved shall be no higher than 200mm above existing ground levels.

Reason: To reduce the risk of flooding to the proposed development and to ensure that there are no detrimental impacts to flood storage or flood flow routes in accordance with Policy S21 of the Central Lincolnshire Local Plan 2023.

16.Within 12 months of the cessation of electricity storage in the site, a decommissioning and restoration scheme shall be submitted to and approved by the Local Planning Authority in writing. The decommissioning scheme shall include a programme and a scheme of works for the removal and shall be implemented in accordance with the approved details.

The operator shall notify the Local Planning Authority in writing within five working days following the cessation of electricity storage. All buildings, structures and associated infrastructure shall be removed within 12 months of the approval of the decommissioning scheme, and the land restored, in accordance with the approved details.

Reason: In the interests of highway safety, visual and residential amenity, landscape character and environmental protection.

Notes to the Applicant

Lincolnshire Fire Service

The applicant is advised to make contact with Lincolnshire Fire Service once the site is complete to ensure they can assess and factor in their emergency

response procedures.

Environment Agency

Proposed temporary bridge- Please note the proposed temporary bridge and works close to the watercourse may need consent from the Internal Drainage Board (IDB), in this case, it is Witham Third IDB.

Energy storage- Energy storage will play a significant role in the future of the UK energy sector. Effective storage solutions will benefit renewables generation, helping to ensure a more stable supply and give operators access to the Grid ancillary services market. The National Grid's Enhanced Frequency Response programme will provide a welcome catalyst for a significant level of battery storage deployment in the UK. Currently, DEFRA does not consider the need to regulate the operation of battery energy storage systems (BESS) facilities under the Environmental Permitting Regulations regime.

Although these are a source of energy to the National Grid they do not result in the direct impact to the environment during normal operations. We do not generally object to battery storage proposals, however, the potential to pollute in abnormal and emergency situations should not be overlooked. Applicants should consider the impact to groundwater from the escape of firewater/foam and any metal leachate that it may contain. Where possible the applicant should ensure that there are multiple 'layers of protection' to prevent the source-pathway-receptor pollution route occurring. In particular, proposals should avoid being situated near to rivers and sensitive drinking water sources.

However, an important factor that can be overlooked by parties involved in new battery storage projects or investing in existing projects is that battery storage falls within the scope of the UK's producer responsibility regime for batteries and other waste legislation. This creates additional lifecycle liabilities which must be understood and factored into project costs, but on the positive side, the regime also creates opportunities for battery recyclers and related businesses. Operators' of battery storage facilities should be aware of the Producer Responsibility Regulations. Under the Regulations, industrial battery producers are obliged to:

- take back waste industrial batteries from end users or waste disposal authorities free of charge and provide certain information for end users;
- ensure all batteries taken back are delivered and accepted by an approved treatment and recycling operator;
- keep a record of the amount of tonnes of batteries placed on the market and taken back;
- register as a producer with the Secretary of State;
- report to the Secretary of State on the weight of batteries placed on the market and collected in each compliance period (each 12 months starting from 1January).

Putting aside the take back obligations under the producer responsibility regime, batteries have the potential to cause harm to the environment if the chemical contents escape from the casing. When a battery within a battery storage unit ceases to operate, it will need to be removed from site and dealt with in compliance with waste legislation. The party discarding the battery will have a waste duty of care under the Environmental Protection Act 1990 to ensure that this takes place. The Waste Batteries and Accumulators

Regulations 2009 also introduced a prohibition on the disposal of batteries to landfill and incineration. Batteries must be recycled or recovered by approved battery treatment operators or exported for treatment by approved battery exporters only. Many types of batteries are classed as hazardous waste which creates additional requirements for storage and transport.

Any run-off from the use of de-icer would not be classed as surface water and would need to be appropriately bunded to ensure that it does not enter ground water or surface water bodies.

Highways

In accordance with Section 59 of the Highways Act 1980, please be considerate of causing damage to the existing highway during construction and implement mitigation measures as necessary. Should extraordinary expenses be incurred by the Highway Authority in maintaining the highway by reason of damage caused by construction traffic, the Highway Authority may seek to recover these expenses from the developer.

Please contact the Lincolnshire County Council Streetworks and Permitting Team on 01522 782070 to discuss any proposed statutory utility connections, Section 50 licences and any other works which will be required within the public highway in association with the development permitted under this Consent. This will enable Lincolnshire County Council to assist in the coordination and timings of these works.

Human Rights Implications:

The above objections, considerations and resulting recommendation have had regard to Article 8 and Article 1 of the First Protocol of the European Convention for Human Rights Act 1998. The recommendation will not interfere with the applicant's and/or objector's right to respect for his private and family life, his home and his correspondence.

Legal Implications:

Although all planning decisions have the ability to be legally challenged it is considered there are no specific legal implications arising from this report.