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Branch Chair
Mrs Jan Arger

Authority: East Riding of Yorkshire

Planning Process: Notice publishing a proposed application for a Development Consent Order (Nationally Significant Infrastructure Project)

Type of consultation: Written Representation

Full details of application/consultation: Aldbrough Hydrogen Storage Project – Statutory Consultation under Section 42 of the Planning Act (2008)

At land: Adjacent to the existing to the Aldbrough Gas Storage Site, Aldbrough, East Riding of Yorkshire

Applicant: Aldbrough Hydrogen Storage Limited (SSE Thermal and Equinor)

Type of response: Comment

Date of Submission: 27th August 2024

All responses or queries relating to this submission should be directed to the Secretary for the Trustees at the contact details shown above on this frontispiece.

All CPRE North and East Yorkshire comments are prepared by the charity using professional planners whose research and recommendations form the basis of this response in line with national CPRE policies.

External planning consultant used in this response:



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The Proposal

CPRE North and East Yorkshire ('CPRENEY') welcomes the invitation to submit a written representation to Aldbrough Hydrogen Storage Ltd. ('the applicant') with regard to the proposed application for Aldbrough Hydrogen Storage Project ('the Project'). It is understood that this consultation forms the statutory consultation on the Preliminary Environmental Information Report ('PEIR') pre-application stage and that following an assessment of comments made, the applicant intends to apply for a Development Consent Order ('DCO'), from the Secretary of State for Energy Security and Net Zero, to authorize the project under Section 37 of the Planning Act (2008).

The application is for the construction, operation maintenance and decommissioning of an underground hydrogen storage facility and the anticipated lifetime of the project is 40 years (with the final decommissioning part expected to take place over 6years) . The caverns are expected to have a total gas volume of up to 765,000,000 standard cubic metres (SM³). CPRENEY understands the key components of the project are:

- Up to nine subsurface caverns created in the deep underlying geological salt layer using sea water to dissolve the salt and bring it to the surface as brine ('solution mining');
- A lined and sealed bored well to a depth circa 1.85km connecting each cavern to a wellhead located in a Wellhead and Leaching Area;
- Connections from each cavern to the seawater and brine pumping equipment (during cavern creation) and to the Central Processing Area ('CPA') (during hydrogen storage);
- The CPA which will include infrastructure to support the storage of gas, such as compressors, dehydration units and workshops;
- The marine infrastructure will be installed to enable solution mining of the caverns (a maximum of five of the caverns at any single time) and will include:
 - a sea water supply pipeline for the abstraction of sea water from the North Sea;
 - a 'wet well' to house onshore seawater pumping infrastructure; and
 - a brine pipeline for the discharge of extracted brine from solution mining into the North Sea.

The proposed site is circa 2.5km south-east of the village of Aldbrough. East Newton is located approximately 1 km to the north and Garton is circa 2km to the south of the site. The site is located adjacent to the existing SSE Hornsea Ltd. Operated Aldbrough Gas Storage Facility and within an area previously consented for the storage of natural gas.

To operate, the Proposed Development will require a connection to a hydrogen pipeline and an electricity supply. Neither the hydrogen pipeline nor the electrical supply connection form part of the Proposed Development and will be covered by separate consent applications.

It is noted that the PEIR and information contained within the chapters presented as part of this consultation are 'preliminary' and that as set out by the applicant, whilst *'the majority of baseline studies have been undertaken but some of the data collected has yet to be fully analyzed and some studies are still to be prepared.'* The Non Technical Summary document confirms that *'the ES will provide a comprehensive assessment of the potential effects of the Proposed Development and will transparently set out how stakeholder concerns have been addressed.'* CPRENEY would therefore envisage responding in full at the time of submission of the application for DCO. However, having had the opportunity to consider the documents presented as part of this stakeholder consultation, including the PEIR, CPRENEY has a number of observations

to make at this stage as recorded in the remainder of this response.

Comment

CPRENEY expect that in preparation of the forthcoming ES, the applicant will have close regard to the following legislative and planning context which will aid the Secretary of State in his Decision Making.

The Proposed Development falls within section 17(2) of The Planning Act (2008) as it is for the '*carrying out of operations for the purpose of creating underground gas storage facilities in England*' and the conditions in subsection (4) are met. The Proposed Development also falls under section 104 of the Planning Act (2008) which requires the Secretary of State to have regard to the National Policy Statements ('NPS') in relation to the Proposed Development. The designated NPSs that apply to the Proposed Development are:

- Overarching NPS for Energy (EN-1); and
- NPS for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4)

Section 104 of the Planning Act (2008), also requires the Secretary of State to have regard to appropriate marine policy documents determined in accordance with Section 59 of the Marine Coastal Act (2009).

Furthermore, the decision-maker must also take into account any local impact report and any other material matters thought to be both important and relevant to the decision including (but not limited to):

- The Infrastructure Planning (Environmental Impact Assessment) Regulations (2017) requires an EIA to be completed in support of a DCO for certain types of projects. Hydrogen storage facilities are listed in Annex II of the EIA Directive, as '*underground storage of combustible gases*'. Therefore the applicants are required to produce a detailed Environmental Statement ('ES') with an application for a DCO which will be need to be submitted to the Secretary of State for examination. CPRENEY expect that the ES will be presented with more detail than as found currently within the PEIR.
- The Conservation of Habitats and Species Regulations (2017) ('The Habitats Regulations') and the Conservation of Offshore Marine Habitats and Species Regulations (2017) ('The Offshore Habitats Regulations') require an appropriate assessment of any adverse effects on qualifying features of internationally important nature conservation sites that are likely to be significantly affected by a proposed project.
- The Climate Change Act (2008) is enshrined in UK law and places a duty on the Secretary of State to ensure that the UK carbon account for 2050 is 100% lower than 1990 levels.
- The UK Hydrogen Strategy (2021) sets out the Government's approach to developing a thriving low carbon hydrogen sector in the UK.
- Net Zero Strategy (2021): Build Back Greener.
- The UK's Build Back Better Policy Paper (2021).
- The British Energy Security Strategy (2022).
- The Powering Up Britain Plan (2023).
- Strategy and Policy Statement for Energy Policy in Great Britain (2024).

- Section 38(6) of the Planning and Compulsory Purchase Act (2004) requires that an application should be determined in accordance with the development plan unless material planning considerations indicate otherwise. The planning system should contribute to achieving sustainable development. The National Planning Policy Framework ('NPPF') (Dec 2023) aims to deliver sustainable development through the implementation of its policies. Paragraph 11 states that for decision making this means:
 - c) *'approving development proposals that accord with an up-to-date development plan without delay; or*
 - d) *where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:*
 - I. *The application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
 - II. *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 Development Plan relevant to this application consists of:

- The East Riding of Yorkshire Local Plan Strategy Document ('LPS') (adopted 2016); and
- The East Riding of Yorkshire and Kingston upon Hull Joint Minerals Local Plan ('JMLP') (adopted 2019).

It is understood that ERYC are in the process of preparing a new Local Plan which will replace a number of existing adopted planning policy documents with a single policy document. The emerging Local Plan has been considered at independent examination and the Inspectors have asked the Council to provide further information on a number of matters. Until such time as the emerging Local Plan has been found sound by the Inspectors and adopted by the Council, full weight should be given to the saved Local Plan policies and other material considerations as necessary including the NPPF and in the determination of this case, the relevant NPS's.

The policies contained in the NPPF are supported by further guidance set out within Planning Practice Guidance ('PPG'), several of which are relevant to the determination of the future application and to the undertaking of an Environmental Impact Assessment.

CPRENEY consider that the information set out in the PEIR, whilst acknowledging that some analysis and studies remain outstanding, is not sufficient at this stage to allow any certainty to be reached regarding the outcomes of the project and the potential wide-ranging and cumulative impacts on both the surrounding physical and built environment and sensitive receptors including residents, business operators, visitors and biodiversity, including a number of protected species. Whilst the baseline information has been presented by the applicant via the PEIR and supporting chapters, there is insufficient information set out as to how the potential environmental impacts will be avoided or mitigated to an acceptable level which makes detailed comment at this consultation stage particularly challenging.

For example, the applicant has not presented any detailed plan drawings or elevations pertaining to the layout and potential development of the wellhead sites comprising up to 10Ha with various tall infrastructure requiring to be in use at any one time potentially across multiple wellheads at the same time, including a 35m drill rig – although this could be taller and will be in situ 24/7 and for potentially 3 years, crane and workover rigs as required (which can be up to 35m in height) alongside multiple other structures varying up to 20m in height. This will be sited next to the proposed 9Ha CPA which will also include

numerous tall infrastructure required for the construction and operation of the site, all bounded by 3-5m earth bund which in itself would be incongruous with the flat topography and wide-open views currently experienced in the rural Vale of Holderness.

CPRENEY find it discouraging that the information contained within the PEIR Landscape, Visual Impact and Seascape Report sets out that *'no mitigation is proposed'* (tables 19:34 and 19:35) in relation to the impact of project activities on the landscape and visual effects during construction, operation and decommissioning phases of the project and concludes with *'This LVIA therefore concludes that the Proposed Development will not give rise to any long-term significant effects on landscape or visual receptors.'*

Whilst the applicant argues that the proposed development is temporary and that the site will be returned to agricultural usage at the end of its operating life (50 years) ensuring that the landscape harm carries less weight, recent case law sets out that 40 years is not actually 'temporary'. The Inspector considering a large solar array in the setting of the Chilterns AONB (ref: APP/A1910/W/23/3317818) set out that *"Although the proposal is for a limited period of time, the length of that period is very substantial".* (My emphasis). Furthermore, whilst the NPPF (para 163) states that LPAs should not require applicants to demonstrate the overall need for renewable or low carbon energy, the Inspector clarified that the benefits to climate change are not a 'trump card'. Climate Change is a significant material consideration, however, it is not the only one. The Inspector stated that the *"harm caused by the landscape/AONB issues would not be clearly outweighed by the other considerations identified"*. Whilst this scheme is not for solar farm, CPRENEY would argue that the harm caused by the significantly larger scaled development in this case would cause much more harm to the landscape than a solar farm over an even longer and thus more substantial period of time so as to warrant significant weight to be attributed to it in the planning balance.

Notwithstanding the above, the Supreme Court handed down its judgment in *R(Finch) v Surrey County Council and ors [2024] UKSC 20* on 20 June 2024, concluding that Surrey County Council's decision to grant planning permission for a project to expand oil production from the Horse Hill well site near Horley was unlawful because it failed to assess the effect of combustion of the oil produced from the proposed well site, and in particular, the inevitable greenhouse gas emissions that will arise as a result (the 'downstream' emissions). Surrey County Council decided that an EIA did not need to include an assessment of the greenhouse gas (GHG) emissions that would occur when the oil extracted from the wells was burnt elsewhere as fuel. It only considered the site's direct releases of greenhouse gases during the lifetime of the project.

Lord Leggatt noted that it was an agreed fact that if the project goes ahead, it is inevitable that the oil produced from the well would be refined and eventually undergo combustion, producing greenhouse gas emissions. It was also agreed that the amount of the emissions could be estimated using an established methodology. Lord Leggatt also concluded that the EIA does not impose a geographical limit on the scope of the environmental effects of a project, meaning the council was wrong to confine the EIA to emissions expected to occur on the site.

The judgement also went on to reject an argument from the Court of Appeal that the emissions occurring on combustion could not be regarded as effects of the project because what is burnt as fuel will not be the crude oil produced from the well site but an end product made at a separate facility where the oil will be refined. Lord Leggatt reached this conclusion because there was no conjecture about how the oil would be used, unlike materials extracted in a steel plant, for instance, which could be used in a host of different products.

CPRENEY therefore, conclude from this that the forthcoming ES must contain a robust exploration of any downstream emissions and potential impacts of flaring (even if not occurring regularly).

The applicant has provided various baseline noise assessments without providing significant details regarding potential mitigation as required by the NPPF and relevant noise and minerals PPGs so as to determine the likely environmental impact, particularly from the drill rig, site activities and associated traffic movements. Paragraph 191 of the NPPF sets out clearly that *'decisions should ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should (inter alia):*

A) *Mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise going rise to significant adverse impacts on health and the quality of life...'*

A footnote to the policy directs the reader to the DEFRA Noise Policy Statement for England ('NPSE') (2010) which clearly states that noise exposure can cause annoyance and sleep disturbance, both of which impact on 'quality of life' that can give rise to adverse health effects. Further, The World Health Organisation ('WHO') Guidelines for Community Noise (1999) provides guidance to environmental health authorities and practitioners tasked with protecting people from the harmful effects of noise. The WHO guidance states that sensitive groups include the elderly and people with physical and mental disorders and that those vulnerable groups are potentially *'more susceptible to unacceptable noise impact.'*

The PPG Minerals ('PPGM') (paragraph 21)¹ directs operators to set *'noise limits to reduce to a minimum any adverse impacts, without imposing unreasonable burdens on the mineral operator'* this is wholly in line with the aims of the NPSE and the above quoted paragraph in the NPPF which both seek to reduce and minimise adverse impacts resulting from noise. CPRENEY consider, therefore, that the applicant is required to prove that they have 'reduced to a minimum' potential noise impacts associated with the project to the point of unreasonable burden. Inadequate information has been submitted in this regard thus far and it is expected that this would be presented in the forthcoming detailed ES.

The PPGM goes on to state at the end of the same paragraph that *'in any event the noise limit should not exceed 42dB (A) LAeq, 1hr (free field) at a noise sensitive property'* (my emphasis). This final sentence is pertaining to the absolute cap which should not be exceeded at night-time as a result of noise generating activities. The guidance, therefore, sets a clear direction for operators to reduce noise to an absolute minimum – this applies to mineral drilling which is in effect exactly the same process and drill being used in this project and should therefore apply to the determination of this application.

CPRENEY can see no reference to the NPPF or PPGM in the submitted PEIR noise assessments chapters and consider that these requirements and restrictions should be applied to and enforced in this case for all sensitive receptors, including residents, adjacent businesses and even protected species as has been the case elsewhere in the country (with nesting barn owls having been protected via noise limiting conditions) and therefore would expect to see this within the forthcoming ES.

As part of the Aldbrough Gas Storage facility planning application, a designated haulage route for construction and operational traffic over 3.5 tonnes was approved. This approved route included the provision of a link road to prevent construction vehicle movements within the village of Aldbrough. The applicant has therefore assumed that majority of HGV traffic will access the site from the south along the A165 northbound, therefore the proposed route for HGV traffic is along the A165, the B1238 through Bilton and Sproatley and then using an HGV Link Road to access the Site via the B1242.

¹ ID: 27-021-20140306

CPRENEY are aware that there has been a number of large projects approved within the vicinity of Aldbrough and that many of these projects involve a high number of large vehicular movements throughout the life and various stages of each proposal. Furthermore, the Pathfinder project has also been submitted to the Local Planning Authority and could potentially increase the number of such vehicles on the strategic and local road networks should that be approved. The cumulative impact of all these large vehicles (including HGVs and larger articulated OGV2s) needs to be assessed as part of the determination of this proposal in order to ensure that the development meets the requirements of the NPPF in relation to the tests set out in paragraph 114 in that 'safe' and 'suitable' access to the site can be achieved for all users.

The assessment of the entire route, taking into account all potential road users, therefore needs to be assessed to ensure that (para. 114d) '*any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree*'. Paragraph 115 goes on to state '*that development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.*' Paragraph 116 clarifies that '*within this context...*' (referring to paragraph 115) '*...applications for development should:*' (inter alia)

- A. '*Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas...*' and
- C. '*Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles...*'

The applicants onshore traffic and transportation report sets out that '*the B1238 is designated as an alternative preferred route for HGVs within ERYC Freight Map and therefore a certain level of HGV traffic is expected.*' The B1238 through Sproately and Bilton has also been 'approved' as the main transportation route for other large infrastructure projects involving hundreds of HGV movements daily over a substantial period of time in this same way as this project proposes, including the construction of a conventional oil well at West Newton (21/04625/CM).

Whilst CPRENEY recognise that the applicant has gone some way towards producing a travel plan to ensure that drivers do not lay up in the surrounding road network and avoid peak school times etc., which is welcomed, the detail of this would need to be considered in the forthcoming ES and mirroring conditions presented to ensure that these actions can be enforced. However, CPRENEY would wish to see a greater assessment of the impact of the project and cumulative planned projects on vulnerable users of the highway network, in particular pedestrians, recreational users, cyclists, horse riders and of the impact of these projects on the surrounding public right of way network and bridleways. Furthermore, it is paramount that the proposals ensure highway safety concerns are reduced with specific reference to the impact of proposed traffic movements on the wildlife population (including deer), the ability of two large vehicles to pass safely all along the route (including from other projects which the applicant does not control) and traverse safely passed stationary vehicles and with visitors to the area including traffic associated with the nearby Burton Constable Hall.

CPRENEY acknowledge that there are more areas (e.g. Ground and sub-surface hydrology, marine environment, biodiversity and historic environment) within the PEIR which will need the same level of scrutiny by the applicant in order to full assess the likely impacts of the proposal via the EIA process and thus expect that the forthcoming ES and application will contain substantially more information than currently available. It is paramount that the forthcoming ES details the potential impacts and mitigation measures on both residents and the natural environment including habitats and species found in the area, in order to meet the requirements of the NPPF to mitigate and reduce to a minimum any adverse impacts

associated with the project.

CPRENEY welcomes the opportunity to comment on this consultation and reserves the right to comment again at the next stage in the planning process.