The Rt Hon Edward Davey MP  
Secretary of State for Energy and Climate Change  
c/o National Infrastructure Consents Team  
Department for Energy and Climate Change  
2nd Floor Kings Buildings  
3 Whitehall Place  
London SW1A 2AW  

9 May 2014  
Sent by email: deccnic@decc.gsi.gov.uk

Dear Secretary of State,

**Preesall Underground Gas Storage Facility: re-determination**  
**Applicant: Halite Energy Limited**

For over a decade, my constituents have been living under the shadow of proposals for an underground gas storage facility beneath the Wyre Estuary. Like me, my constituents, fear the unstable geology of the salt caverns make the site unsuitable for such a facility and that its development could have dire consequences. Another, important aspect of this application is that the proposed site is located on the Preesall salt marsh and within the Wyre Estuary Site of Special Scientific Interest (SSSI). The impact of the development on this sensitive ecology is, therefore, also a significant concern.

In April last year, your Ministerial colleague, Greg Barker MP, refused the current application and my constituents breathed a sigh of relief. This was the second time a Minister had rejected an application for such a scheme: Hazel Blears MP as Communities and Local Government Secretary rejected an application on appeal in 2007. We thought this would be the end of the matter. However, the relief we felt was short lived as the applicant (ever keen to push the limits of the planning process and determined not to take “no” for an answer) sought a Judicial Review of the decision. Their challenge was successful and you have now been asked to re-determine the application. I understand that your reconsideration will focus on five aspects of the application and I will address each in turn.

i) *Further geological information to demonstrate the Applicant’s case that the anticipated total storage capacity of up to 900 million cubic meters and*
working capacity of up to 600 million cubic meters at standard temperature and pressure in the area for cavern development can be achieved

The applicant has identified two polygon areas within which it believes 19 caverns can hold up to 900 million cubic meters of gas. The question of whether this capacity is attainable rests upon the stability of the geology.

The Preesall Salt Field has a long history of brine workings and until 1994 the site was solution mined for use as a source of chemical production by ICI. It is well documented that these works have led to some instances of collapse within the area. The Environment Agency has confirmed that “this type of brine well is known to collapse and cause subsidence.”¹ Throughout the planning process to date the instability of the geology has been questioned. While Halite may have changed the proposals for the underground gas storage facility, it cannot alter the physicality of the site. It is also a fact that there are faults within the Preesall salt field and the area is seismically active and prone to tremors. The report prepared by Professor Rokahr (an expert on gas storage) which was commissioned by Canatxx, Halite’s predecessor, recommended that situating gas storage caverns near faults should not be advised.² The proposed site is geologically unstable.

To date, I have seen no evidence which convinces me that the geology present at the site has the stability required to host underground gas storage on any scale. I will set out my concerns about the lack of evidence further in the next section. However, suffice to say, the absence of any hard geological data relating to the polygon areas, within which the applicant proposes to store gas, together with the uncertainty provided by the sampling data which has been gathered from the periphery of the polygons leads me to believe that the site is wholly unsuitable for underground gas storage, let alone at a capacity of 600 – 900 million cubic metres.

The Examining Authority’s report of 21 January 2013 supports my assertion. The Panel stated:

“We consider that it is necessary to obtain more detailed geological data within the polygon areas to demonstrate that a significant proportion of the 600 Mcm working gas storage volume being sought by this application can be achieved and in turn that the requirements for surface infrastructure can be validated.”³

Following the determination of the application in April 2013, I understand that Halite undertook seismic surveys of the proposed development site. The survey reports have not been published so I cannot comment on the findings. I assume that these will be presented to you by Halite as part of the re-determination process.

Procedurally, I do not believe that any new seismic data can be considered as part of this re-determination process. Any geological data which the applicant wanted considered should have been provided when the application was submitted, in line with paragraph 2.8.9 of EN-4. I understand that you are required to make your decision on the basis of the information presented at the time the application was submitted and during the public inquiry. Indeed, this process is intended to provide my constituents with the opportunity to consider and, if necessary, challenge the data as part of the public inquiry. Therefore, I contend that a new application would have to be made if the applicant wishes the seismic survey findings to be taken into account.

ii) The extent to which the development is consistent with National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4)

EN-4 Paragraph 2.8.9 states “Applicants should undertake, and supply to the IPC, a detailed geological assessment to demonstrate the suitability of the geology at the site for the type of underground gas storage proposed... When considering storage in a salt cavity, the geological assessment should include depth below surface, salt thickness, salt purity and presence of shale bands which could affect cavern design. In addition, a study of the geological integrity of the overlying strata and potential for collapse, taking account of the proposed minimum and maximum working pressures, will need to be undertaken.”

I followed the Judicial Review process closely and it is clear that the applicant has failed to provide sufficient evidence about the geology of the site and its ability to host an underground gas storage facility safely. One of the grounds Halite gave for requesting a Judicial Review was that the Examining Authority’s Inspector did not request further geological data regarding the site or hold an issue specific hearing on the subject of the geology, but the lack of data was later cited as a reason for refusing the application. Paragraph 2.8.9 places an onus on applicants to provide appropriate evidence regarding the geology of their chosen site. This advice sets out specific requirements, which Halite has failed to meet.

In addition, the applicant did not act upon recommendations made in relation to previous applications for a similar development. The current application is one in a series of applications for such a development at this location. The first applications were made by Canatxx Energy Ventures. According to Companies House records Halite Energy Group is the de-facto new name of Canatxx. In November 2003 Canatxx Energy Ventures lodged, with Lancashire County Council, plans for an underground natural gas storage facility in salt caverns under the River Wyre which included up to 20 well heads. Planning Application Reference: 02/03/1455. In November 2004 Canatxx appealed to the Secretary of State on the grounds of non-determination by the County Council of the application. The appeal was originally to be considered by the Planning Inspectorate, but on 11 July 2005 the appeal (APP/Q2371/A/05/1183799) was recovered for determination by the then Communities and Local Government Secretary, Hazel Blears MP.

In October 2007, following a lengthy public inquiry, the then Secretary of State refused the appeal made by Canatxx in relation to its planning application. The Planning Inspectorate's
report which informed the Secretary of State’s decision noted that “considerable uncertainty… exists relating to constraints that fundamentally affect the location of the caverns and the capacity of the scheme”. ⁴ The Inspector also commented that the “uncertainty as to the vulnerability of properties to gas migration, and hence potential explosion, makes this currently an unacceptable location for underground gas storage.”⁵ When the Secretary of State refused the application she noted as one of her main concerns “that crown hole subsidence would appear irreversible if it did occur, and considers therefore that the risk of crown hole subsidence is a significant concern”.⁶

In February 2009 Canatxx submitted a further application to Lancashire County Council (Application Reference 02/09/0159) for the development of a natural gas storage facility including up to 6 multiple wellhead locations to create underground salt caverns by solution mining and creation of caverns. This was refused by the County Council’s Development Control Committee in January 2010 on the grounds that insufficient information had been supplied about the geology of the site and the unacceptable risk of gas migration given the relationship of the proposal to former operations and its proximity to residential areas on the east side of the estuary and the more densely populated Fleetwood peninsula.

When considering the current application, the Examining Authority highlighted:

“the technical assessor for the 2007 Public Inquiry recommended that at least two more seismic lines be undertaken and drilling and geophysical logging of boreholes on these lines to prove ground truth. In view of this and the subsequent failed planning application in January 2010, we are surprised that no seismic surveys were undertaken across the polygon areas to support this application”.⁷

It should also be noted that much of the geological information which was submitted in support of the current application was regurgitated data which had been provided with previous applications. My understanding is that no further investigation was undertaken at the site prior to the determination of this application in April 2013. The applicant has presented no new hard data, despite previous applications being refused on the grounds of insufficient geological data. Prior to April 2013 there have been no new test bores, no further seismic tests, in fact no hard data obtained from the polygon areas whatsoever, only computer modelling using old data of questionable accuracy from outside the polygon areas.⁸ All new “evidence” is theoretical and not proven in practice. In their report, the Planning Inspectorate’s Panel stated that the modelling needed refinement, given the lack

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⁴ The Planning Inspectorate (30 March 2007) Report to the Secretary of State for Communities and Local Government: Appeals by Canatxx Gas Storage Limited. Paragraph 20.15.2
⁵ Ibid. Paragraph 20.15.5
⁸ The Examining Authority states that “The definition of the proposed polygon areas therefore relies heavily on the 3D model which includes various types of data derived from sources of different quality with respect to reliability and accuracy…The model does not differentiate between different types of data nor does it make allowances for the variations in the accuracy of each type.” (Ibid. Paragraph 5.21)
of real data. The depth and thickness of the halite is unknown. Likewise, the locations of any faults are unknown.

There is no doubt given the history of the proposals for an underground gas storage facility on the site, and the grounds upon which past applications have been refused, that Halite was aware that the geology of the site is one of the significant issues raised by their proposals. Thus, Halite should have been aware of the need to provide comprehensive geological data to support their application. Indeed in paragraph 45 of the Judicial Review Judgement, Mrs Justice Patterson states that “the claimant was always aware that more detailed work was required as each of the individual caverns needed to be designed”. If this was the case, why did Halite not provide further information when they submitted their application?

It is significant, as the Examining Authority noted, that:

“Where detailed geological information is available, the Applicant has decided that the halite is too faulted or too close to existing workings to be suitable for safe construction and operation of UGS”.

I find it peculiar that all the hard geological evidence relating to the Preesall site indicates the unsuitable and unstable nature of the site, yet Halite continues to argue that the caverns – for which no hard data is available – are suitable. I do not believe 3D computer modelling to be an adequate substitute for hard data, a view shared by the Examining Authority.

Halite has clearly failed to meet the requirements of Part 2.8.9 of EN-4 in terms of providing geological data about the depth and thickness of the halite. The Examining Authority has concluded:

“that the geological analysis submitted as part of the application falls short of that required by NPS EN-4 to prove beyond reasonable doubt that the geological structure, thickness and faulting of the halite are suitable for the construction of caverns of the particular sizes and shapes within the specified areas in order to support the volume of gas storage proposed in the application.”

Halite also claimed in their Judicial Review application that the Examining Authority had “applied too high a standard” in relation to the consideration of geological data. Mrs Justice Patterson is critical that the Examining Authority had expected the geology to be proved

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9 The Examining Authority confirms that “the thickness variations in the halite are too poorly known in the southern polygon and are disputed on the basis of the interpretation of a single borehole in the northern polygon”. (Ibid. Paragraph 5.30)
10 The Examining Authority notes that “it is not possible to define safe distances for cavern development from the faults when the positions of the faults are not known with sufficient accuracy”. (Ibid.)
13 The Examining Authority states that “there is little reliable or observed geological information from within the polygons themselves.” (Ibid. Paragraph 5.22)
14 Ibid. Paragraph 5.65
beyond reasonable doubt. Given that the safety of the development (and that of over 80,000 local residents) rests on the stability of the site, there is an unquestionable case for being certain about the geology. Given the applicant (and its predecessor, Canatxx) has on at least three occasions, been asked for further evidence it seems more than reasonable to insist that this is produced before any permission is given.

In the absence of a pre-application geological assessment, the suitability of the proposed underground gas storage facility cannot be properly considered. Previous applications have also failed because of the geological certainty of the site and I urge you to refuse the application again. It is my view that the Inspectors were wrong to advise permission on the condition of further evidence. It is more than worrying that the applicant has always failed to produce the reassurances required.

**Paragraph 2.8.10 states “The siting of gas storage facilities will also be influenced by safety considerations. Section 4.12 of EN-1 and Section 2.5 of this NPS set out how the hazardous substances regime is applied to gas storage infrastructure.”**

Given the gaps in the geological data and the well documented instability of the geology surrounding the polygons which are to house the gas, the safety of the proposed development is far from guaranteed. The more I read about the site and the geological uncertainties, the more I fear for the safety of my constituents should this application be granted permission. The Inspector, who considered the application in 2007, highlighted in his report the potential for gas migration and subsequent explosion. I would also like to draw to your attention the further comments the Planning Inspector made in his 2007 report:

“It is understandable that residents of Fleetwood and other more heavily populated areas beyond the appeal site should express serious concern for their health and wellbeing. The extent to which these prove to be reasonable fears and concerns can only be assessed on the basis of a comprehensive investigation of the form, nature and permeability of the overburden strata. Until that information is available, and the true level of risk has been assessed, these fears are a material consideration that constitutes a significant planning objection.”

Since that time, no new evidence has been presented to either refute the concerns or alleviate the fear experienced by my constituents.

**Paragraph 2.11.2 states the ES should include measures to dispose of brine which mitigate its potential adverse environmental effects. Where pipelines are required to carry the brine away, these should be located outside of source protection zones 1 and 2. If it is not possible to avoid these zones, the applicant will need to demonstrate the use of best available techniques for pollution prevention (details of pollution control regimes are set out in Section 4.10 of EN-1). Wherever possible, measures should include disposing of the brine for commercial use by industry so that mineral resources are used sustainably. Applicants should only propose**

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15 The Planning Inspectorate (30 March 2007) Report to the Secretary of State for Communities and Local Government: Appeals by Canatxx Gas Storage Limited. Paragraph 20.16.6
disposing of brine to an underground reservoir (for example, a disused salt mine) or to the sea as a last resort where there is no practical option for re-use. Where the proposed development involves any discharges to water bodies, including to groundwater or to the sea, the EA should be contacted early on in the process, at or before the pre-application consultation stage, to discuss the requirements (including the information required from the applicant).

I am anxious about the impact the discharge of brine, via a pipeline, into the Wyre estuary/Morecambe Bay (Morecambe Bay Special Protection Area) could have on the delicate marine ecosystem. The Statement of Common Ground agreed by Natural England acknowledges the:

“construction of the brine outfall pipeline and its subsequent long term presence upon the seabed poses a potential risk of physical disturbance and damage to local marine BAP habitats and fauna”16

and that:

“potential long term impacts could result from changes to sediment dynamics and morphology of the seabed if the brine outfall pipeline is not fully buried and retained in situ”17

Natural England appears dependent on modelling undertaken on behalf of the applicant. Natural England’s conclusion “no likely significant effects” is of considerable concern to my constituents and me.18

You don’t need to be an expert to recognise that pumping brine into a marine area with a delicate ecology will change the composition of the environment. I am concerned about the irreversible damage which could be done. This site was chosen for designation as a Special Conservation Area for a reason, by experts. I would argue that the brine should not be discharged into Morecambe Bay. This would be supported by EN-4 Policy and Article 6 of the “Habitats” Directive 92/43/EEC. EN-4 policy specifies that brine should only be discharged into the sea as a last resort and, given the special status of the Morecambe Bay Special Protection Area, I would argue that brine discharge into the sea in this case should be completely ruled out on account of the sensitive and unique ecology of the area.

iii) Whether, if the Secretary of State decides on redetermination to grant development consent for the Development, he should do subject to the terms of requirement 6 of the draft development consent order as recommended by the Examining Authority in its report of 21 January 2013

The questions posed in requirement 6 of the draft development consent order ask for essential information about the geology of the site and the design of the proposed caverns. These are important questions, which the applicant should have addressed when making

17 Ibid. Paragraph 2.1.11.
18 Ibid. Paragraph 3.1.21.
the application (EN-4 Paragraph 2.8.9 states that much of this information should have been provided as part of the application process). Paragraph 2.8.9 specifies that:

“a detailed geological assessment to demonstrate the suitability of the geology at the site for the type of underground gas storage proposed... the geological assessment should include depth below surface, salt thickness”.

Point 6 (1) (a) of the draft consent order requests that “a geological survey of the “area for cavern development” ... [be] carried out to confirm the top and bottom levels of the Preesall halite deposit”. This demonstrates that the applicant did not meet the requirements of EN-4 at the application stage.

So fundamental is the information requested, that I do not believe it is possible to determine the application in its absence. Halite has failed to demonstrate the safety of the geology and this is a material consideration and a justified reason for rejecting the application. It is right that such information be supplied and considered before any planning permission is granted, and not afterwards as the Examining Authority had suggested. Such a fundamental principle as the safety of local residents cannot simply be a condition to be met after permission is granted.

The Department for Energy and Climate Change should ensure that the geology of any site is sound before granting permission for such a large-scale project. It would be a dereliction of duty if the Department was to pass responsibility for enforcing this requirement onto the local authority.

I would also ask that you bear in mind Lancashire County Council’s opposition, as the mineral authority, to the scheme. The County has argued that:

“The impacts of the above ground development associated with the current proposal are potentially greater than those associated with similar previous proposals on the site, and which were previously found unacceptable to the Secretary of State and the County Council. In particular, the compressor station is no longer to be housed within a building, and will introduce a large industrial style facility into a rural environment.”

The introduction of built elements, such as a gas compressor station, associated stacks, well head compounds and access track into the area would fundamentally alter the character of the area from that which is currently rural.

This issue alone is sufficient reason for the application to be refused.

iv) The adequacy of the environmental information produced in support of the application for the Development and whether further or updated environmental information is now necessary

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19 Letter from Stuart Perigo, Head of Development Management at Lancashire Council, sent on 10 February 2012 to the Infrastructure Planning Commission. Page 3
As I have stated the proposed site is located on the Preesall salt marsh and neighbouring area which falls within the Morecambe Bay Special Protection Area (SPA), Special Conservation Area (SCA) and Ramsar site, designated for its bird populations of European importance. The site of the proposed development is also located within the Wyre Estuary Site of Special Scientific Interest (SSSI). It is located close to a number of Biological Heritage Sites (BHS) such as the Fleetwood Promenade Coastal and Dune Grasslands BHS, Rossall School Field BHS and Fleetwood Marsh Industrial Lands BHS. It should be noted that there are over 4000 SSSI sites in England covering 8% of the land mass, but there are only 614 sites designated as SCAs in the whole of the UK.

Under the provisions of Article 6 of the “Habitats” Directive 92/43/EEC SPAs and SCAs such as Morecambe Bay are afforded particular protections. The Directive states: “Member States should take appropriate steps to avoid pollution or deterioration of habitats or any disturbances affecting the birds”. The Conservation (Natural Habitats, &c.) Regulations 1994 transposed the provisions of Article 6 into national law and came into force in October 1994. The Directive encourages the consideration of alternative sites outside the SCA. The Commission places the emphasis on demonstrating the need for the plan or project concerned at the site in question.

Article 6 (3) states:

“the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public”.

The environmental and EU legislation, detailed, above would support the rejection of the application given that Halite’s proposals will:

a) have a significant direct impact on the SCA;
b) adversely affect the integrity of the site;
c) and there are alternative sites available for underground gas storage elsewhere in the UK.

It is also clear from the number of objections the Planning Inspectorate has received against this application and the support the Protect Wyre Group has received, that the general public is also opposed to this application. Indeed, in my nine years as the local MP, I have not received one representation in favour of the proposed scheme.

It should be noted that when the first (2003) application was submitted by Canatxx the European Commission opened a horizontal investigation into the failure of the UK statutory bodies to properly take action to protect the SPA and SCA. The Commission’s investigation was halted when the application was refused by the Secretary of State.

Failure of the UK to abide by the terms of the Directive could lead to a case being brought by the European Commission against the UK. The European Court of Justice has already

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upheld cases against France, Spain and Ireland. I reserve the right to again seek redress through the Commission.

In England, Natural England has statutory duty to protect these areas of national and European interest. Natural England and Hyder Consulting (on behalf of Halite) signed a Statement of Common Ground. In reaching that agreement, Natural England relied on evidence collated by Hyder about the spatial distribution of relevant SPA and Ramsar bird species. Given the potential for bias, I questioned Natural England on what steps their Officials had taken to corroborate and challenge the evidence presented to them. Natural England state that:

“it is always the developer’s responsibility to undertake all necessary surveys and collate information to enable an Environmental Impact Assessment (EIA) and “shadow” HRA [Habitats Regulations Assessment] reports to be prepared in support of their application”.21

I am concerned that Natural England, has not undertaken their own research to challenge the assurances given by the applicant and argue that further independent research and investigation is necessary to ensure the UK meets its responsibilities under Article 6 of the “Habits” Directive 92/43/EEC.

v) Any other matters arising since 9 April 2013 which interested parties consider are material to the Secretary of State’s re-determination of the application

National need for gas storage

Since April 2013, Energy and Climate Change Ministers have confirmed that the UK has an adequate supply of gas storage:

“two fast-cycling storage facilities have recently been completed, and two more are currently under construction. These facilities will increase current capacity by 20% and almost double daily deliverability rates from GB storage. There are a further 10 gas storage projects with planning consents in place that would provide more than double existing capacity if built.”22

In addition the Parliamentary Under-Secretary of State, Baroness Verma, has acknowledged that the UK has “a robust and dependable gas interconnection through pipelines from Norway and the rest of Europe”.23

Therefore, it is clear that there is not a pressing need for gas storage in the UK. Any perceived need has reduced significantly since this application was determined in April 2013

21 Letter dated 18 September 2012 from Dave Webster, Chief Executive of Natural England, addressed to Ben Wallace MP. Page 2.
22 Michael Fallon MP answering a PQ tabled by Adrian Sanders MP, House of Commons Hansard, 28 January 2014, column 522W
23 Baroness Verma answering an oral PQ from Baroness Worthington, House of Lords Hansard, 28 November 2013, column 1510
given the recently completed storage facilities. This should be taken into account, as the proposed development is not essential.

Even if there was a national need for greater underground gas storage, I know this Government (and the last) places a high value on ensuring the locations are appropriate. When Hazel Blears, as Communities Secretary, rejected the appeal by Canatxx in October 2007 the there was a national need for more underground gas storage. Yet, she stated:

“in the context of the uncertainties that underlie the suitability of the geology of the Preesall Salt Field to accommodate the appeal proposal, that national need cannot be extrapolated to mean that there is a specific need for the appeal proposal.”

This stance was upheld by John Hayes who wrote on the 2 October 2012 as Energy Minister, that “the scope for [gas storage] facilities is constrained to locations where there is suitable geology”.

Socio-economic impact

I would also ask that you challenge the figures the applicant has provided about the socio-economic impact of the proposed scheme. The applicant suggests that the facility would create thousands of jobs in the local area. After construction Wyre Council estimates that there would be only 35 direct full-time employment opportunities at the site. The constituency of Wyre and Preston North has one of the highest employment rates in Britain. Unemployment currently stands at 1.3% and is falling, with neighbouring constituencies of Fylde and Ribble Valley in an equally high employment situation. In addition, Wyre and Preston North has a diverse employment base with more than 4000 constituents working in BAE Systems.

Conclusion

Over the last decade during which the proposals for an underground gas storage facility have been considered, the applicant (using the company names Canatxx and Halite) has had numerous opportunities to provide evidence about the geology of the site to substantiate their claims.

I would argue that the Court was wrong to say the applicant had not had enough opportunity to present evidence. They have consistently provided the minimum amount of data which has failed to convince local residents, the local mineral authority, numerous Inspectors and a previous Secretary of State that the geology is suitable to for such a significant facility, given the potential serious consequences of gas migration and cavern collapse.

It should be remembered that the onus is on the applicant to provide sufficient evidence of geological stability to enable the application to be determined with confidence. There were
significant gaps in the geological data, a fact which the most recent Inspector’s report acknowledged, but chose to ignore when making their recommendations. For this reason I urge you to again reject the application.

My constituents have suffered prolonged anxiety and what they really need to know is that a refusal is just that: no, means no!

Yours sincerely,

BEN WALLACE

COPY: The Rt Hon Greg Barker MP, Minister of State, Department for Energy and Climate