



Department
of Energy &
Climate Change

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Your ref:
Our ref: 12.04.09.04/279C

23 May 2014

Dear Mr Grace,

**PROPOSED UNDERGROUND GAS STORAGE FACILITY AT PREESALL,
LANCASHIRE**

As you will be aware, the Department wrote to interested parties on 8 April 2014 in accordance with The Infrastructure Planning (Examination Procedure) Rules 2010 setting out the matters in relation to which the Secretary of State considers further representations are needed for the purposes of his re-determination of the application made by your client, Halite Energy Group for its proposed underground Gas Storage Facility at Preesall, Lancashire.

The Secretary of State has also appointed an independent Geological Assessor to advise him on geological matters and to produce a Geological Report, which will subsequently be made available for comment by interested parties. I subsequently wrote to you earlier this month seeking further clarification on the geological data required in order to provide expert advice to the Secretary of State and to produce the geological report.

The Geological Assessor has now had the opportunity to conduct an initial review of the 3D geological model (developed by the British Geological Survey (BGS)) and data it contains, which was provided by Mott MacDonald on behalf of Halite Energy Group on 15 May 2014. Further clarification is sought on the following matters:



Department
of Energy &
Climate Change

- 1) the 3D model does not contain any of the recently (2013) acquired seismic data or the re-processed legacy lines which form much of the dataset to develop and substantiate the updated geological interpretation (as per the Updated Geological Report, ref: H30, and the Results of the Seismic Interpretation, ref: CR/13/122). In order to fully interrogate and provide the appropriate assessment of the subsurface model, the Geological Assessor needs this data, ideally in the 3D model or, as a seismic project in a standard interpretation environment (Kingdom preferred) with all interpretation (in particular, the structural (fault) interpretation) as used to build the 3D geological model and update the cavern development plan (Geostock, 2014);
- 2) the 3D model contains several sets of interpretation:
 - a) FINAL GK Interpretation January 2014
 - b) BGS Interpretation 2014 Version 3
 - c) BGS Interpretation 2014 Version 4

The Geological Assessor requests information on what each interpretation set refers to, and which data it is based on. Please also confirm the BGS interpretations are the most up to date;

- 3) if a model build report exists, the Geological Assessor requests access to it, to help reduce the number of queries put forward to the model developers; and
- 4) two Excel spreadsheets were provided by Mott MacDonald on 15 May 2014 in a folder entitled 'Volume Estimates':
 - 'GSR Volume Calcs – Three Cases', and
 - 'Volume Estimate for Halite'.

These spreadsheets, which contain the data used for calculating the net volumes of each cavern in the cavern development plan, do not provide the *formulae* used to run the calculations; instead a written methodology was provided to describe the working process. The Geological Assessor considers the lack of formulae restricts the analysis of the volume calculation process and prevents re-evaluation of the net volumes should cavern size change. The formulae is also be required to run Monte Carlo analyses of the data and ideally, 'live' spreadsheets (i.e. with formulae embedded) should be provided so as to allow alteration of cavern size, if appropriate, and see the impact of net working capacities.



Department
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Yours sincerely,

Giles Scott

Giles Scott
Head of National Infrastructure Consents