The Planning Inspectorate

The Planning Act 2008 (as amended)

The Preesall (Underground Gas Storage Facility) Order

Panel's Report of Findings and Conclusions and Recommendation to the Secretary of State

Panel's findings and conclusions and recommendation in respect of an application for a Development Consent Order for an underground gas storage facility including associated development that comprises a brine pipeline and gas interconnector pipeline in Preesall, Lancashire

Date: 21 January 2013

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File Ref EN030001

Preesall Underground Gas Storage Facility

- The application, dated 30 November 2011, was made under s37 of the Planning Act 2008 (as amended)
- The Applicant is Halite Energy Group Limited
- The application was accepted for examination on 23 December 2011
- The examination of the application began on 24 April 2012 and was completed on 24 October 2012
- The development proposed is the creation of underground gas storage (UGS) caverns by solution mining of the Preesall Halite deposit in Lancashire to provide a working capacity of up to 600 million cubic metres at standard temperature and pressure (Mcm) together with associated development including wellhead compound areas, a gas compressor compound (GCC), a booster pump station, a seawater pump station, a brine outfall pipeline, a gas pipeline connecting to the national gas grid, pipelines and other elements.

Summary of Recommendation: the Panel recommends that the Order be made, subject to modifications.

Contents

1 INTRODUCTION

1.1 On 19 March 2012 a Panel of three Commissioners was appointed by the then chair of the Infrastructure Planning Commission (IPC) to handle the application dated 30 November 2011 for development consent for an underground gas storage (UGS) facility at Preesall, Lancashire. The Panel comprised:

- Paul Hudson – lead member of the Panel
- Libby Gawith – member of the Panel
- Emrys Parry – member of the Panel.

1.2 At the Panel's request, as provided for under s100 of the Planning Act 2008 (PA 2008) and Rule 11 of the Examination Procedure Rules 2010[1], the chair of the IPC appointed Dr Ramues Gallois to act as an assessor to assist the Panel about geology and geotechnical matters in the examination of the application.

1.3 The IPC was abolished on 30 March 2012 and its functions transferred to the Planning Inspectorate. The members of the Panel are now termed Examining Inspectors and collectively constitute the Examining authority (ExA) for this application.

1.4 This report sets out in accordance with s74 of the PA 2008 the Panel's findings and conclusions in respect of the application, and reasons for our recommendation to the Secretary of State to make an Order subject to modifications, granting development consent for the proposal under s114 of the PA 2008.

1.5 The proposed development for which consent is required under s31 of the PA 2008 comprises an UGS facility with a working capacity of up to 600 Mcm at standard temperature and pressure. It is far above the threshold of at least 43 Mcm specified in s17 of the PA 2008 and is within England. The proposed development comprises a nationally significant infrastructure project (NSIP) as defined by s14 and s17 of the PA 2008, and associated development as defined in s115 of PA the 2008.

1.6 The draft Order seeks powers of compulsory acquisition of land and rights and includes a deemed marine licence as provided for in s149A of the PA 2008.

1.7 The application is EIA development as defined by the Regulations[2]. It was accompanied by an environmental statement (ES) which in our view meets the definition given in Regulation 2(1). Supplementary environmental information was supplied during the course of the examination. In reaching our recommendation, we have taken all the environmental information into consideration in accordance with Regulation 3(2).

[1] The Infrastructure Planning (Examination Procedure) Rules 2010
[2] The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009

1.8 A preliminary meeting was held on 24 April 2012 at which the Applicant and all interested parties (IPs) were able to make representations to the Panel about how the application should be examined. Our assessor attended that meeting. The ExA's procedural decision was issued on 2 May 2012 (PD3), and the examination proceeded in line with this.

1.9 In addition to the consent required under the PA 2008, the proposal is subject to various environmental permits from the Environment Agency (EA) under the Environmental Permitting regime[3], and licences from Natural England (NE) in connection with European protected species.[4] At the time the examination closed on 25 October 2012, none of the required licences had been issued, but letters of comfort dated 18 October 2012 from NE were sent to the Applicant in respect of great crested newts and bats such that no outstanding issues remain which would prevent the licences from NE being granted (REP281, Appendices 18 and 19).

1.10 A brine discharge consent under the Water Resources Act 1991 was granted by the EA in 2007 in connection with a previous planning application for UGS at Preesall (see Chapter 4 below). The EA reissued this consent in 2011 to take effect from the beginning of 2014 in connection with the Order if made (APP18, Appendix 2.1). A Water Abstraction Licence for up to 80,000m^3 of water per day from the Fleetwood Fish Dock was granted by the EA in June 2012 (REP198, Appendix 3).

1.11 The certificates required from the Secretary of State in relation to compulsory acquisition of land and rights are dealt with in Chapter 8 below.

1.12 A separate parallel application was submitted for a deemed hazardous substances consent (HSC), and this has been progressed in order to enable the Secretary of State to make a direction under s12 of the Planning (Hazardous Substances) Act 1990 as amended by Schedule 2, paragraphs 42 to 47 of the PA 2008.

1.13 Subsequent to the Order being made, a range of other consents would be required. Approvals to satisfy the Control of Major Accident Hazards Regulations (COMAH) 1999 would be needed from the Competent Authority which is the Environment Agency (EA) and Health and Safety Executive (HSE) acting jointly.

UNDERTAKINGS

1.14 During the course of the examination, a s106 agreement under the Town and Country Planning Act 1990 (TCPA) was concluded between the Applicant, Preesall Energy Services Ltd, Wyre Borough

[3] Environmental Permitting (England and Wales) Regulations 2010.
[4] Conservation of Habitats and Species Regulations 2010

Council (WBC) and others. This has been executed and dated 18 October 2012 (REP281, Appendix 24). It provides particularly for the Applicant's obligations to WBC concerning the discharge of requirements, decommissioning of the site and monitoring of the existing brinewells, together with maintaining the established community liaison panel and the routeing of HGV traffic during construction.

1.15 An agreement dated 18 October 2012 in favour of the EA was also entered into by the Applicant (REP281, Appendix 26). It commits the Applicant to meeting the costs of restoring the existing flood protection to the current standard if the proposed works create an increased flood risk.

1.16 An option agreement dated 22 October 2012 was entered into between the Applicant and Blackpool Borough Council concerning an easement to enable a brine discharge pipeline to be constructed beneath the Blackpool to Fleetwood Tramway (REP308).

1.17 An undertaking dated 22 October 2012 in favour of Knott End Golf Club was issued by the Applicant limiting the exercise of compulsory acquisition rights and powers over the surface of the Golf Club's land for purposes related to subsidence monitoring equipment only (REP281, Appendix 7). This was not agreed by the Golf Club (REP281, Appendix 8).

1.18 The content of these undertakings is set out in more detail in Appendix A, and we took these into account in our findings and conclusions, and recommendation.

STRUCTURE OF THE REPORT

1.19 Chapter 2 summarises the main procedural steps taken during the examination. Chapter 3 sets out the main features of the proposed development. Chapter 4 summarises the policy context applicable to it. In Chapters 5, 6 and 7, the Panel's findings and our conclusions in respect of each of the main considerations and on the development merits are set out. Chapter 8 deals with compulsory acquisition matters. Chapter 9 considers the proposed Order, the changes which were made to it during the course of the examination, and further modifications we feel are necessary to make the proposed development acceptable. In the light of that, Chapter 10 sets out our overall recommendation that the Order should be made.

1.20 Appendix A summarises the contents of the obligations referred to in paragraphs 1.14 to 1.17 above. The main 'events' occurring during the examination and the main procedural decisions taken by the ExA are listed in Appendix B. Appendix C lists the documents submitted by the Applicant and others in connection with the examination, with the references used in this report. It also contains a list of those parties making written and oral

representations to the Panel. All representations properly made were duly considered and taken into account by the Panel before coming to our conclusions and recommendation.

1.21 Appendix D contains the final version of the Development Consent Order (DCO) submitted by the Applicant at the conclusion of the examination with the further modifications we propose. Finally, Appendix E contains a list of the main abbreviations used in this report.

2 PROCEDURAL DECISIONS

2.1 This chapter provides an overview of the main procedural decisions made by the ExA during the examination of the application. It also includes information on the participation of the public in the examination. In all cases the lead member of the Panel wrote as appropriate on behalf of the ExA. A full chronological breakdown of the examination process is set out in Appendix B.

2.2 As Appendix C illustrates, we received just under 200 relevant and written representations concerning the proposal. This is not a large number compared with other controversial development proposals, but needs to be seen in the context of:

- three previous planning applications for similar UGS proposals in the area
- the coordination role performed by the Protect Wyre Group (PWG).

2.3 PWG's role is set out in the organisation's written representations (REP170). PWG has been closely involved in organising opposition to previous proposals, and consequently to this application for development consent. PWG in turn organised pro forma responses from over 10,800 residents inviting respondents to agree with 10 major points of objection put forward by PWG as well as enabling individuals to set out specific matters of concern to them. PWG analysed this response as part of their representation (REP170). These pro forma responses are not themselves individual representations, a point we discussed with PWG at the preliminary meeting held in Fleetwood on 24 April 2012.

2.4 The representation submitted by Paul Maynard MP also contained 496 pro forma responses expressing opposition to this application (REP160).

2.5 Perhaps not surprisingly, many representations repeated points made in opposition to earlier planning applications for UGS and indeed re-presented material submitted to the public inquiry held in 2007. Although it is important to recognise the history of previous proposals for UGS in this locality, we were concerned from the outset to treat the application for development consent as a fresh proposal.

2.6 Following the preliminary meeting held on 24 April 2012, the lead member of the Panel wrote to all IPs on 2 May 2012 setting out the ExA's procedural decision (PD3). This established the timetable for the examination, including the deadlines for submitting written representations, Local Impact Reports (LIRs), Statements of Common Ground (SoCGs) and responses to our first round of questions contained in an Annex to the letter.

2.7 These questions covered a wide range of matters concerning:

- geology
- the assessment of significant effects on the Morecambe Bay SPA and Ramsar site
- the impact of brine discharge to the Irish Sea
- noise and landscape impacts
- disposal of waste arisings from cavern formation
- access
- the interconnector gas pipeline
- storage of hazardous substances
- compulsory acquisition
- corporate structure.

2.8 Following the receipt on 6 June 2012 and 4 July 2012 of written representations, the LIRs, responses to the first round of questions and subsequent comments on these documents, and a large number of SoCGs, the lead member of the Panel wrote to all IPs on 18 July 2012 setting out the Panel's further written questions.

2.9 An issue specific (IS) hearing was held on 24 July 2012 to consider the drafting aspects of the draft Order including the draft deemed marine licence and the requirements, and the proposed agreement between the Applicant and the local planning authorities under s106 of the TCPA. In the light of discussion at the hearing, the Panel decided to cancel the second IS hearing concerning the draft Order provisionally arranged for 22 August 2012. This was to allow the Applicant and other organisations involved in drafting sufficient time to prepare a further submission, which was received as set out in the timetable on 31 August 2012.

2.10 On 23 August 2012, the lead member of the Panel confirmed that additional IS hearings would be held on the following matters:

- 18 September: drafting aspects of the draft Order and requirements, the draft marine licence and the proposed s106 agreement
- 19 September: the relationship between the development proposed to be granted by the Order and the subsequent detailed approvals to be obtained from the Competent Authority (HSE and EA) within the COMAH Regulations.

2.11 Following the receipt of several requests from affected persons (APs) wishing to be heard at a compulsory acquisition (CA) hearing, the lead member of the Panel confirmed in his letter of 31 August 2012 that such a hearing would be held to consider the compulsory acquisition of land and interests starting on 9 October 2012. Similarly, following the receipt of requests from three IPs he confirmed in the same letter that an open floor (OF) hearing would take place consisting of six sessions on 17 and 18 October 2012.

2.12 During the later stages of the examination, the Panel issued several requests for information under Rule 17[5]. These covered matters such as:

- the implications of The Conservation of Habitats and Species (Amendment) Regulations 2012
- the position of statutory undertakers and Crown land in relation to compulsory acquisition powers
- the framing of requirements within the Order
- the hazardous substances consent.

2.13 We held accompanied site visits at the beginning of the examination on 3 May 2012 and again at the end on 19 October 2012, and the examination closed on 24 October 2012.

2.14 We are satisfied that all those making written representations had a full opportunity to participate in the examination, through the submissions made and at the hearings.

[5]Infrastructure Planning (Examination Procedure) Rules 2010

3 THE APPLICATION

3.1 The proposed UGS facility is shown on the plans submitted as part of the application (principally the ES, APP17-19 and APP5-9). The master plans in Part 3 of APP9, and repeated in several documents such as the Project Overview (APP30), provide an overall view of what is proposed.

THE SITE AND ITS SURROUNDINGS

Eastern side of the Estuary

3.2 The main part of the proposed development at Preesall, including the surface wellheads to the UGS caverns, the booster pump station and the gas compressor compound (GCC), would cover an extensive irregularly shaped area comprising the Wyre Estuary, open agricultural land with associated hedged field boundaries and salt marsh to the east of the Wyre Estuary. To the north is Hackensall Sewage Treatment Works (STW), Cote Walls Farm and Knott End golf course, beyond which is the settlement of Knott End; to the north east is Preesall, to the east Stalmine, and to the south Staynall with Hambleton beyond.

3.3 There are several scattered farmsteads in the area, comprising old houses and a mixture of traditional and modern agricultural buildings and hard standings. There are two recreational static caravan parks at The Heads, one of which is within the control of the Applicant; the other is in private ownership. The area is accessed by a number of single track roads, agricultural access tracks and a number of public footpaths including the Wyre Way long-distance path which runs up the eastern side of the Wyre Estuary on the flood protection embankment.

3.4 The land is generally flat but undulating in parts. There is extensive evidence of former salt workings in the form of brine abstraction wellheads throughout the area, water filled depressions to the east and north east of the application site some of which are deep and security fenced. These are a result of either catastrophic cavern collapse of former brinewells or areas associated with a former 'dry' mine to the east of Cote Walls Farm, the surface development of which has since been removed and the former workings are now flooded.

3.5 The area of Arm Hill and all the salt marshes fall within the Morecambe Bay Special Protection Area (SPA) and Ramsar site, and the Wyre Estuary Site of Special Scientific Interest (SSSI).

Western side of the Estuary

3.6 The western side of the Estuary is fronted from north to south by Fleetwood Docks, the former Fleetwood Power Station site which has been reclaimed for ecological and recreational purposes, Jameson Road landfill/raise site, and land associated with the

former ICI works at Hillhead. The main surface development proposed on the Fleetwood side of the Estuary is the seawater pump station in the Fish Dock.

Pipelines

3.7 A corridor of some 20m beneath the Estuary would be required to accommodate the communications, seawater and brine discharge pipelines to run from the proposed booster pump station on the eastern side of the Estuary to the seawater pump station in Fleetwood Fish Dock. The discharge pipeline would run from the seawater pump station on a course parallel to the rear of the Jameson Road waste water treatment works and a holiday caravan park, along Jameson Road over the disused railway before crossing the A585(T), and running through the grounds south of the Nautical College of Fleetwood. It would then run to the rear of residential properties on South Strand, parallel to West Way and past Rossall Hospital to the coast. The discharge pipeline would then cross the sea wall before extending some 2.3km into the Irish Sea. The corridor crosses an area of mixed uses including areas of vacant and open land and playing fields and is in close proximity to a number of Biological Heritage Sites, one of which is crossed at Rossall.

3.8 A smaller southern pipeline corridor is proposed similarly beneath the Estuary to accommodate an electricity supply between from a substation at Stanah Switchyard south of Hillhouse and Staynall on the eastern side of the Estuary. The electrical cables would then run underground northwards through agricultural fields to the GCC in the main development site at Preesall.

3.9 The proposed interconnecting gas pipeline would run westwards from the GCC to the national gas transmission pipeline system (NTS) at Nateby, crossing agricultural land. A proposed gas metering station would be located on agricultural land adjacent to the pipeline and accessed via a private farm track.

THE PROPOSAL

3.10 The application proposes the construction and operation of an UGS facility at Preesall, Lancashire. The purpose of the application is to inject gas into, store gas in, and extract gas from underground caverns with a total storage capacity of up to 900 Mcm and a working capacity of up to 600 Mcm, at standard temperature and pressure. The underground caverns are proposed to be constructed on the east side of the Wyre Estuary, and elements of surface infrastructure are proposed on both the east and west sides of the Estuary.

3.11 Up to 19 operational underground caverns are proposed to be constructed formed by solution mining of the Preesall Halite

deposit. These caverns constitute the NSIP. The application also includes a number of other elements as associated development:

- 7 multiple wellhead compounds (all but one of the compounds serve several caverns) from where the underground salt caverns would be created and, once operational, to connect the gas manifolds
- a gas compressor compound (GCC) comprising a range of plant and equipment to dry, compress, heat and cool gas, above ground high-pressure pipelines, utility systems and buildings
- a seawater pump station and associated infrastructure
- a booster pump station and associated infrastructure
- gas manifold and distribution infrastructure
- a seawater pipeline from the Fleetwood Fish Dock to the Preesall site
- a brine discharge pipeline from the Preesall site to a point in the Irish Sea approximately 2.3km offshore terminating in a two port diffuser
- power, communication and control cable routes from the Fleetwood Fish Dock to the Preesall site
- power cable routes from the Stanah Switchyard to the GCC
- temporary drilling compounds at the Fleetwood Fish Dock and near the Stanah Switchyard
- modifications to the sea wall at West Way to accommodate the brine outfall and a new observation platform
- an interconnector pipeline to the metering station and the NTS at Nateby
- a new access road from the A588 and new and upgraded internal access tracks within the Preesall site
- refurbishment of Higher Lickow Farm.

We are satisfied that proposed authorised development in Schedule 1 of the Order comprising the NSIP (Work No 1A) and the various elements of associated development (Works Nos 1B,2 -21) are capable of being granted development consent under s115 of the PA 2008.

CHANGES TO THE APPLICATION DURING THE EXAMINATION

3.12 The Applicant submitted a request on 15 August 2012 to amend the application plans relating to the brine discharge outfall (PD17). This was to correct the alignment of the limits of deviation of the brine discharge outfall as shown on the work plans, land plans and certain other plans so that they accord with the discharge consent issued by the EA (APP18, Appendix 2.1).

3.13 We sought confirmation that the proposed amendments raised no issues with relevant consultees.[6] We concluded that the proposed

[6] the Marine Management Organisation (MMO), Crown Estate, Duchy of Lancaster and WBC.

amendments were not material, no IP had been disadvantaged and that the application as so amended could still be examined. Accordingly, we accepted the proposed amendments on 2 October 2012 (PD14) and requested a complete set of revised application drawings to substitute for the incorrect ones. These were supplied on 4 October 2012 (REP315).

4 POLICY CONTEXT

4.1 The application documents (principally the Planning and Sustainability Statement, APP28) contain a detailed description of the legislative and policy framework that the Applicant considers relevant to the proposal, and an analysis of how the application meets the assessment principles of relevant National Policy Statements. Several representations, for example, the Local Impact Reports (LIRs) submitted by Lancashire County Council (LCC) (REP193) and Wyre Borough Council (WBC) (REP194), also contain views about the appropriate policy context for handling the application. Statements of Common Ground between the Applicant, WBC and LCC covering development planning policy and the relevant planning history were provided (SoCGs 16 -19).

4.2 Our conclusions on the appropriate policy context for this application are set out below. In addition, because this application for development consent follows previous proposals which have been refused planning permission, we set out the planning history of relevance to the site.

NATIONAL POLICY STATEMENTS

4.3 PA 2008 (as amended) states that in deciding the application, the Secretary of State must have regard to any national policy statement (NPS) which has effect in relation to development of the description to which the application relates, and that, with exceptions including whether the development would result in adverse impacts outweighing the benefits, the Secretary of State must decide the application in accordance with any relevant NPS (s104).

4.4 The NPSs most relevant to this application are EN-1 and EN-4 which were designated by the Secretary of State for Energy and Climate Change on 19 July 2011 in accordance with s5 of the PA 2008. They therefore provide the primary basis for reaching decisions in this case (NPS EN-1, paragraph 1.1.1).

Overarching National Policy Statement for Energy (EN-1)

4.5 This NPS sets out national policy for energy infrastructure and the particular role of gas infrastructure, including increased gas storage capacity (section 3.8). Part 4 sets out the principles to be applied in considering applications for development consent, and that the starting point is a presumption in favour of granting consent to applications for energy NSIPs. A general point concerns the role of Development Plan Documents (DPD) or other documents in the Local Development Framework (LDF). Paragraph 4.1.5 advises that in the event of a conflict between these or any other documents and an NPS, the NPS prevails for the purposes of decision-making given the national significance of the infrastructure.

4.6 Of the 14 assessment principles set out in Part 4, those which we regard as particularly important in relation to this application are:

- Habitats and Species Regulations - the examination must consider whether the project may have a significant effect on a European site, or on any site to which these same protections are applied as a matter of policy, either alone or in combination with other plans and projects such that an appropriate assessment is required (section 4.3)
- alternatives - from a policy perspective, there is no general requirement to consider alternatives or to establish whether the proposed project represents the best option (section 4.4)
- design - good design for energy infrastructure is encouraged but equally important is functionality, including fitness for purpose and sustainability; it is acknowledged that the nature of much energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area (section 4.5)
- pollution control - the planning, pollution control and other environmental regulatory regimes are separate, but complementary; the examination of an application for development consent should focus on whether the development itself is an acceptable use of the land, and on the impacts of that use, rather than the control of processes, emissions or discharges themselves; the working assumption is that the relevant environmental regulatory regimes will be properly applied and enforced by the appropriate regulator (section 4.10)
- safety - the use of salt caverns or UGS is regulated by specific health and safety legislation; the project would be subject to the COMAH Regulations 1999 enforced by the Competent Authority comprising HSE and the EA acting jointly
- hazardous substances - gas storage requires a HSC.

4.7 Finally, the NPS sets out the range of generic impacts which are anticipated to arise most frequently in the assessment of energy infrastructure development proposals, for example biodiversity, historic environment, landscape, noise and traffic.

National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4)

4.8 This NPS sets out additional policy specific to underground natural gas storage facilities and gas pipelines. Detailed assessment principles relevant to UGS in salt caverns include:

- site selection - a detailed geological assessment is required to demonstrate the suitability of the geology at the site of the type of UGS 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
    - the assessments should include the construction, operational and decommissioning phases and should cover the long-term integrity of the affected strata after decommissioning or closure of the storage facility (paragraph 2.8.9)
- noise and vibration - during construction arising from the drilling of boreholes and potentially during operation (section 2.9)
- water quality and resources - in this case the main consideration is the abstraction of water requiring a licence from the EA (section 2.10)
- disposal of brine -in this case the discharge of brine would be to sea, requiring a consent from the EA and approval of construction proposals by the MMO through a marine licence included as part of the DCO (section 2.11).

THE DEVELOPMENT PLAN

4.9 Although the designated NPSs provide the policy framework for examination of this application for development consent, we give a brief consideration in this section as to what constitutes the development plan. It draws particularly on the Planning and Sustainability Statement submitted as part of the application for the DCO (APP28), and the SoCGs dealing with development planning policy (SoCG18 and SoCG19).

4.10 For the purposes of this application the development plan comprises the:

- Regional Spatial Strategy for the North West (2008)
- 'saved' policies of the Lancashire Minerals and Waste Local Plan (2001)
- Lancashire Minerals and Waste Development Framework (Core Strategy)
- (2009)
- 'saved' policies of the Wyre Borough Local Plan (1999)
- Fleetwood – Thornton Area Action Plan (2009).

The Regional Spatial Strategy for the North West (RSS13)

4.11 This was published in March 2003 and approved as the "The North West of England Plan, Regional Spatial Strategy to 2021" in 2008.

4.12 The Applicant, LCC and WBC consider RSS policies DP 1 to 4, 7 and 9, RDF 1 to 3, EM 1, 6, 7, 15 and 16 are relevant to this application (SoCG18 and SoCG19). The RSS remains part of the

development plan but only until it is formally abolished as a consequence of the provisions of the Localism Act 2012.

Lancashire Minerals and Waste Local Plan

4.13 The Lancashire Minerals and Waste Local Plan 2006 was adopted in 2001. A number of policies from this plan have been 'saved' until such time as the new complete Local Development Framework for Minerals and Waste is in place.

4.14 The Plan deals with the Preesall Salt Field and sets out the history of mining in the area (paragraph 10.25). This has led to the creation of large underground voids which are filled with saturated brine. Although most of the caverns are unlikely to collapse, the Plan adopts a precautionary approach when it comes to permitting surface development in the areas of these cavities (paragraph 10.28).

4.15 Policy 71 seeks to protect the surface of the former Preesall Salt Field from development and states:-

> *'The surface of the Preesall Salt Field shown on Insert Map 8 will be protected from development which may be adversely affected by land instability due to the existence of underground cavities.'*

4.16 Policy 72 dealing with salt provision, states:-

> *'Proposals for the extraction of salt or brine will be permitted, provided that:-*
> *a) it is demonstrated that the need for the development overrides any adverse impact which it may have on people and the environment; and*
> *b) the proposal makes adequate provision for the protection of existing development in or adjacent to the development area; and*
> *c) the provisions made for the long term safety of cavities are adequate.'*

Lancashire Minerals and Waste Development Framework (Core Strategy)

4.17 The Joint Lancashire Minerals and Waste Development Framework Core Strategy DPD was adopted in 2009. There are no policies or proposals within the adopted Core Strategy that deal directly with salt extraction or brine disposal.

Wyre Borough Local Plan

4.18 The Wyre Borough Local Plan was adopted in 1999. A number of the Local Plan polices have been 'saved' until such time as a new LDF is in place. The application site includes land designated as

Countryside Area (Policy SP13) and defined Open Coastline (Policy ENV2).

Fleetwood – Thornton Area Action Plan (AAP)

4.19 The Fleetwood-Thornton Area Action Plan was adopted in 2009. The Plan covers the west side of the Wyre Estuary and includes the site of the proposed seawater pump station as being in the Fleetwood Docks Mixed Use Development Area.

Emerging Plans

4.20 Emerging plans that are not yet part of the Development Plan comprise:

Lancashire Minerals and Waste Development Framework (Site Allocations and Development Control Policies)

4.21 The Joint Authorities have prepared a detailed Site Allocations and Development Control Policies DPD which was subject to a public examination in autumn 2011. Major changes to the DPD were proposed and these were subject to a public consultation in early 2012.

Wyre Borough Local Development Framework

4.22 WBC is preparing a comprehensive LDF and hopes to have the Core Strategy DPD adopted by October 2013 and the Site Allocations DPD adopted towards the end of 2014.

The Panel's Conclusions about the Development Plan

4.23 Our conclusions about the development plan are that the clear intention of the Localism Act 2011 is abolition of the RSS in due course, and for this reason we accord its policies little weight in the examination of this application. The Lancashire Minerals and Waste Development Framework is at a relatively early stage of preparation, and consequently little weight can be attached to it. In this situation, saved policies 71 and 72 from the Lancashire Minerals and Waste Local Plan 2006 are relevant to this application. At the local level, the Wyre Borough LDF is at an early stage of preparation and little weight can be attached to it. In the meantime, saved policies from the Wyre Borough Local Plan and the much more recent Fleetwood -Thornton AAP are relevant to the application.

National Planning Policy Framework

4.24 Because the development plan is incomplete and not up-to-date, the National Planning Policy Framework published in March 2012 is an important and relevant consideration.

4.25 The Framework supersedes the advice set out in those PPGs and PPSs which are now cancelled. At the heart of the Framework is a presumption in favour of sustainable development. Paragraph 147 encourages UGS and associated infrastructure if local geological circumstances indicate its feasibility, subject to considerations set out in paragraph 148 which include maintenance of gas pressure and prevention of gas leakage.

PLANNING HISTORY

4.26 This section provides a summary of the planning history of proposals for UGS facilities at Preesall. Over the past decade, a number of planning applications and applications for HSC have been submitted to LCC by Canatxx Gas Storage Limited (CGS). These applications have been subject to a significant number of objections concerning in particular, the adequacy of the geology for development of UGS facilities, landscape and visual impact, risk and fear. In all cases, LCC resolved to refuse permission whether in circumstances of non-determination, or in issuing a decision.

4.27 CGS appealed against a refusal of a planning application submitted in November 2004 (ref 02/04/1415), and an application for HSC submitted in April 2005 (ref HSC/05/01). The appeal was recovered for determination by the Secretary of State, and following a public inquiry was dismissed in April 2007.

4.28 The Secretary of State did not object to the principle of the underground gas storage proposals per se and, indeed, accepted that there was a need for facilities of this type within the UK. For the most part, the reasons for the Secretary of State's dismissal of the appeal related to lack of information and matters of detailed design:

- the information provided on the geological, hydrological and mining setting was insufficient to enable a decision to be made on the feasibility of the principle of the proposals and proposed land use
- the potential impact of subsidence on the proposed pipework or other infrastructure had not been addressed
- planning permission should not be granted in advance of design details supported by robust and reliable geological modelling to confirm that there would be no possibility of cavern roof failure affecting Hackensall STW
- whilst the Secretary of State considered that the residents' fears in themselves did not constitute a significant planning objection, the failure to provide an adequate risk assessment was such an objection
- the visual harm of the proposed gas compressor station and the booster pump station would be contrary to the development plan

- crown holes resulting from cavern roof collapse would present a seriously detrimental impact on the appearance of the salt marsh which was a significant visual amenity in its own right
- whilst the proposed additional salt marsh would provide adequate compensation for general subsidence, there was an element of uncertainty and crown subsidence would be irreversible if it did occur
- proposals for a mini roundabout at the junction of the A588 and Cemetery Lane/B5377 were unacceptable but some form of link road for the duration of the scheme may be acceptable
- any failure of a proposed cavern in the vicinity of the Wyre Way could result in the severing of this important coastal path, severely restricting public access to and enjoyment of the Estuary
- the level of night time disturbance for the Sportsmans Caravan Park would be unacceptable
- it was not possible to state that gas dryer noise would not exceed background noise levels, nor have a detrimental impact on night time residential amenity in Staynall
- there was uncertainty in respect to noise associated with pipeline venting and potential noise affects arising from decommissioning
- the proposal would be likely to result in a marginal positive benefit assuming no wider economic loss discouraging tourists staying elsewhere in Wyre Borough.

4.29 In 2009, CGS submitted a fresh planning application for a UGS facility at Preesall of similar scale with similar buildings and infrastructure (application ref 02/09/0159) and an application for HSC (ref HSC/09/01), which sought to overcome the Secretary of State's concerns as summarised above.

4.30 In order to assist in the determination of the planning application, LCC appointed consultants (Atkins) to assess the geological information provided. The planning application was refused by LCC in January 2010 for the following reasons:

- the application contains insufficient information to:
  - properly assess and ensure the geology of the area is capable of accommodating the proposed development
  - demonstrate its relationship to former solution mining activities or surface development
  - establish there is no opportunity for migrating gas through the geology or via former mining activities
- the proposed development to the east of the Estuary would result in the introduction of an industrial development which by reason of its scale, design and location would be detrimental to the quality of the open character of the countryside, coastal plain, estuary landscape and the Wyre Way
- failure to demonstrate that the development would not present an unacceptable risk of gas migration given the:

  - relationship of the proposal to former operations
  - its proximity to residential areas on the east side of the Estuary
  - proximity to the more densely populated Fleetwood peninsula throughout its operation, decommissioning and long term aftercare management
- failure to provide an adequate risk assessment for the proposal would result in considerable and understandable fear and distress within the local communities attributable to the nature of the proposal and the potential consequences of any accident occurring.

4.31 The application for HSC was also refused by LCC on the basis it contained insufficient information to properly assess the geology of the area and its relationship to former workings. It would represent an unacceptable risk of gas migration, would result in fear and distress, and be contrary to the SEVESO ll Directive in that it would not maintain appropriate distances between the storage areas and the Wyre Way which would have to be closed.

4.32 An application for an interconnecting gas pipeline to the NTS at Nateby was submitted to WBC and whilst the Borough Council resolved to grant planning permission subject to further details, no decision notice has been issued.

The Relevance of Previous Proposals to the Application for Development Consent

4.33 Previous planning applications have involved the creation of up to 36 caverns over an area of nearly 500ha with a capacity to store in excess of 1200 Mcm of gas. The application for development consent envisages the creation of up to 19 caverns with a working capacity of up to 600 Mcm of gas. The caverns are proposed to be created in two polygonal areas which comprise 75ha.

4.34 The application for development consent retains those parts of the previous CGS proposals which were found to be acceptable to the local planning authorities:

- that part of the project which would be sited on the west bank of the Wyre Estuary (the seawater pump station, the brine pipeline route and the works to the sea wall)
- the general route of the gas interconnector to the NTS at Nateby
- buildings on the Preesall site on the east bank of the Wyre Estuary have been located at the northern part of the site and the buildings have been redesigned to reflect the character of the area; alternative sites on the west bank of the Wyre Estuary have been assessed particularly for the siting of the GCC, but these have been rejected for health and safety reasons.

4.35 Clearly, there is a substantial history of previous planning applications submitted under the TCPA for similar proposals for UGS at Preesall which provides an important context for examining the application for development consent, not least for many of the representations which have been submitted. However, it is also important to recognise that the application before us is different from previous proposals in terms of both geography and scale. We have therefore sought to examine the proposal on its own merits.

5 FINDINGS AND CONCLUSIONS: GEOLOGY

5.1 In accordance with s88 of the PA 2008 we carried out an initial assessment of the principal issues and published this as part of a letter dated 19 March 2012 to all IPs (PD2). There was limited discussion about the principal issues at the preliminary meeting held on 24 April 2012, and we confirmed our procedural decisions in a letter dated 2 May 2012 (PD3).

5.2 Having regard to the various representations made during the examination, the legal obligations on us as the ExA, the policy context set by the NPSs, the LIRs, and all other relevant and important matters referred to, our findings and conclusions on the main matters raised are as set out below.

5.3 The order in which matters are considered in this and the next chapter is not intended to reflect the relative importance attributed to them by the Panel in reaching our overall conclusion:

- geology, including the feasibility, suitability and safety of the proposal, and the risk of gas migration
- landscape, particularly impacts of the GCC
- effects on Morecambe Bay SPA, Ramsar site, and the SSSIs
- impact of brine discharges to the Irish Sea on commercial fish stocks, and marine habitats and fauna
- noise impacts on new residential development at Harbour village, Rossall Hospital and caravan parks near Stanah Switchyard
- access arrangements, including justification for a new haul road from the A588
- other matters.

5.4 The rest of this chapter covers matters relating to geology and the assessment of risks concerning UGS. All other findings and conclusions are covered in the following chapter.

GEOLOGY AND ASSESSMENT OF UGS RISKS

5.5 There have been three previous planning applications for UGS at the Preesall site, all of which were refused. One of the key reasons for refusal on each occasion was insufficient information on the geology of the site. In view of this and the considerable number of representations about the project in terms of the basic geological circumstances and safety, we consider that geology and the risks require detailed assessment in this report.

5.6 NPS EN-4 requires the Applicant to undertake and supply a detailed geological assessment which demonstrates the suitability of the geology at the site for UGS (see paragraph 4.8 of this report).

5.7 This chapter considers the geological assessment presented by the Applicant and falls into two parts. The first is whether the UGS storage volumes proposed in the Order are reasonably achievable.

The chapter then addresses the key risks associated with geology, project infrastructure, residential areas and local amenities which might affect site selection. LCC and WBC have identified risks that they wished us to take into consideration as part of the examination (REP193 and REP194).

ASSESSMENT OF GEOLOGICAL DATA

Location of UGS Caverns

5.8 The Applicant proposes to constrain the UGS to two potential cavern development areas which are referred to as the northern polygon and the southern polygon. The northern polygon is located on the eastern side of the Wyre Estuary, beneath Knott End Golf Club, Cote Walls Farm and adjoining the Hackensall STW[7]. The southern polygon lies beneath the salt marshes on the eastern side of the Wyre Estuary SSSI, west of the flood defences. These locations are shown on drawing number MMD-277663-0027 (REP207, Appendix 1 and APP20, figure 9.1).

5.9 The two polygon areas are defined by the Applicant as areas that avoid known hazard zones of faults, boreholes and wet rock head and the mining hazards of solution brinewells and dry mining. This is the essential conundrum: these two areas do indeed avoid all known constraints, but are also areas where there is little hard geological data.

Sources of Geological Data

5.10 The geological data is summarised in the Geological Summary Report (GSR) (APP37) which contains a comprehensive list of the detailed technical reports provided in support of the application. Additional data, comprising a large number of original geological survey reports referred to in the GSR, has been supplied in response to our written questions. The accuracy of the geological data and its suitability for UGS is a key aspect of debate in the written representations and has consequently been considered by us in some detail.

5.11 The geology of the Preesall Halite given in the GSR (APP37) is presented as a graben, a down-faulted area in which salt accumulated during the Triassic period. This interpretation of the Preesall Halite as a graben is fairly recent however, dating from the late 1990's (REP203, Appendix 15). Hitherto, the geological structure was presented as a syncline. The revised interpretation of the geology for this application uses the same data on which former applications were based:

- records of the former salt workings

[7] Hackensall STW, located on the east bank of the Wyre Estuary, is also referred to in correspondence with UU as Preesall WwTW.

- British Geological Survey (BGS) geological mapping
- four partially cored boreholes commissioned by Canatxx for earlier applications (Arm Hill and The Heads, 2003, and Hay Nook and Burrows Marsh (middle deviated), 2008/09)
- older boreholes (Hackensall Hall E1, 1940, which has been reinterpreted, and Cote Walls Farm, 1974)
- two seismic-reflection lines (made for hydrocarbon-exploration) have been reinterpreted, IELP-99-25 (crosses southern part of northern polygon), and GC86-81-336 (crosses the southern polygon, but has an omission zone in the polygon itself)
- three seismic lines (Canatxx D, F, and G, 1997) commissioned for an earlier application, which lie south of the southern polygon
- an additional seismic line, (made for hydrocarbon exploration), GC86-DU371, lies south of the site and the other Canatxx lines, and has also been used to predict the geology of the southern polygon.

A summary of the key geological data is given in Tables 1 and 2 at the end of this chapter.

5.12 Additional geological data was obtained by the Applicant after the December 2009 application. This has been detailed in the Applicant's answers to our written questions (REP203, responses to Q1/5, Q1/6 and Q1/7 and REP207, responses to Q1 and Q2) and is summarised below:

- new seismic reflection data over the dry mine and adjacent areas to show salt rockhead and to investigate the south-western boundary of the mine (Fugro seismic survey 2010)
- reassessment of the data from Hay Nook and Burrows Marsh borehole in BGS Reports (REP203, Appendices 3, 8 and 9); these reports provide down-hole geophysics data, core fracture and core photographs
- caliper logging and in-situ gas permeability testing carried out in the Hay Nook Borehole at selected horizons to represent the overburden mudstone, the halite and the mudstone interbeds within the halite
- three boreholes drilled along Monks Lane to investigate the thickness of the Drift Deposits[8]; these did not penetrate the halite
- shallow boreholes, drilled by Fugro as part of a site investigation for the infrastructure and foundation design for project infrastructure; these did not penetrate the halite.

5.13 We have also taken note of the comprehensive representations concerning the geological data provided by PWG (REP170, REP197, REP206 and REP266). These have been collated from the data

[8] Drift Deposits is a collective term for sediments of Pleistocene and Holocene age. In the Preesall area, they are mostly weakly consolidated glacial and estuarine sediments.

provided for previous planning applications and the Public Inquiry in 2007.

5.14 SoCG1 on geology, which has been signed with LCC and endorsed by WBC, concludes that:

- the GSR presents an adequate representation of the geology which is sufficiently well defined to establish areas in which caverns can be constructed by solution mining
- an indicative layout of caverns within two polygon areas has been prepared to fit within the defined areas
- the geology has been sufficiently defined for an analysis of the risks from gas migration to be assessed and surface subsidence to be calculated subject to confirmation by further drilling as the development proceeds
- the risk of seismic activity has been assessed as negligible
- the risks from historic salt abstraction have been assessed and will not impact on the proposed project
- an indicative cavern layout has been defined within the two polygon areas which have a working gas capacity of 600 Mcm.

5.15 However, both LCC and WBC in their LIRs also requested that:

> '*the Examining Authority is satisfied that the applicant has demonstrated that the geology is present in a form that is capable of safely accommodating the proposed caverns and that the proposed standoffs between the caverns and existing caverns as part of previous solution mining operations are sufficient to ensure the integrity of the proposed caverns in a way that would be safe and not give rise to the migration of gas through the geology of the area or be at risk from seismic movemen*t'
>
> (REP193, paragraph 11.5 and REP194, paragraph 11.5).

5.16 We recognised this issue and asked 38 questions about the geological data in our first round of questions to obtain a better understanding of the geology with regard to site selection. This was followed by another 20 questions in our further round of questions. The Applicant provided additional information and BGS papers in response to our questions but was not able to provide more geological data from within the polygons themselves.

5.17 The Applicant provided BGS reports to substantiate their view that more geological data has been collected for the Preesall application than has been collected for any other proposed UGS in the UK at planning stage (REP203, Appendices 2 and 14). However, we consider that this application should be assessed on its own merits, because the extensive salt extraction over many years makes this site a complex one, and in the light of the planning history.

5.18 Our assessment is that the geological data provided is unevenly distributed. In the area between the flood defences and the former

salt mine, where data is available from boreholes drilled by ICI, the thickness of the halite and the depth to its upper surface is accurately known (mostly to within ± 5m). In contrast, the geological data is less well known north of the former salt mine (where there is little reliable borehole data and wild brine pumping is known to have been practised), and west of the flood defences. These are the areas within which the two polygons are located.

3D Geological Model

5.19 The case for whether the halite is thick enough to allow the safe construction of caverns of the sizes, shapes and locations of those proposed in the application is based largely on the 3D geological model which was prepared for Canatxx by BGS in 2005 (REP203, Appendix 15), and modified by Dr Rutherford Jnr in December 2010 for the Applicant. The 3D model is based on geophysical seismic–reflection surveys, boreholes and historic drilling and mining records.

5.20 The 3D model shows hazard buffer zones (within which the Applicant stipulates that caverns should not be constructed), which were developed from the assessment of the basic geology and historic mining conditions, in accordance with project design rules. Plans and sections have been given in the GSR to simplify the presentation particularly with respect to the definition of the two polygon areas where caverns are proposed (APP37).

5.21 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 principal types of data sources can be categorised as follows:

- factual data (for example, boreholes giving the top and the bottom of the halite)
- interpreted data (for example, seismic lines which enable interpretation of the top and bottom of the halite but can have significant errors)
- inferred data (for example, the position of faults from the seismic lines)
- postulated data (for example, presumed extension and termination of faults in areas where there is no seismic or borehole information, and dip of the halite).

The model does not differentiate between different types of data nor does it make allowances for the variations in the accuracy of each type.

5.22 The 3D model of the development areas for UGS caverns has been created principally by extrapolation and interpretation from well documented data points outside the polygon areas. In contrast,

there is little reliable or observed geological information from within the polygons themselves.

5.23 Some of the data is also open to different interpretations and can be used to support mutually exclusive conclusions. PWG dispute the data used to model the northern polygon (REP170, paragraphs 5.62 to 5.71). The Hackensall Hall E1 Borehole, drilled in 1940, indicated a thickness of 81m of faulted halite. In the 2005 model, the depth of halite was therefore assumed to be 81m. In the 2010 model, this has been altered to infer that the borehole crossed the Burn Naze Fault and the thickness of halite predicted by the model was over 220m (taken from drawing no MMD-277663-0031 (REP207, Appendix 4)). PWG argue that the five mudstone interbeds identified in the borehole logs support their case that the borehole did not pass through the Burn Naze Fault, as five interbeds are also identified in other boreholes on the site (REP170, paragraph 5.64 and REP206, page 3).

5.24 The Applicant's view is that they have adopted a conservative interpretation of the presence of the Burn Naze Fault, and if in fact the fault lies farther west then it has a greater separation from the western-most caverns. They do not consider therefore this situation is a major concern (REP198, paragraph 3.135).

5.25 The Applicant did not produce any factual evidence to substantiate the revised interpretation of Hackensall Hall E1 Borehole, and our assessment is that the location of the Burn Naze Fault is still not accurately known. Our view is that if the revised interpretation is incorrect, the model may overestimate the thickness of halite available for UGS in the northern polygon by up to 120m. The consequence of this would mean that the Applicant would not be able to construct caverns in this location of the height, volumes, or the maximum working pressure indicated in the GSR (APP37, table 6.3).

5.26 We questioned the Applicant about the data used to achieve the apparent improvement in accuracy of the 2010 3D model which shows 20m contours compared to 100m contours in the previous 2005 and 2009 versions. The Applicant answered that:

> '*no additional data has been obtained. The refinements in the geological model were based on additional analyses of the top and base salt surfaces and the latest plots are purely to aid visual assessment and no increase in accuracy is implied*'
>
> (REP203, response to Q1/8a).

5.27 We further questioned the Applicant on the data used in the model. The Applicant responded:

> '*The BGS 2005 model included the actual thickness of the salt deposit as encountered within the borehole without reference for geological interpretation. The 2010 model took into*

consideration the surrounding information and the interpretation of salt thickness and the location of the Burn Naze Fault. The later BGS models interpreted that the Burn Naze Fault passed through the Borehole E1, consequently the model was updated to show a greater thickness of salt to the east of the fault'

(REP207, paragraph 5.10).

5.28 The Applicant considers the interpretation that faults do not penetrate the halite within the polygons to be robust based on assumptions regarding fault length and displacement ratios. They consider that the fault positions in the 3D model are sufficiently accurate to support the proposed cavern designs and locations at this planning stage (REP203, response to Q1/10). However, no factual evidence was presented to us to support this.

5.29 SoCG1 states that the GSR presents an adequate representation of the geology which is sufficiently well defined to establish areas in which caverns can be constructed by solution mining. SoCG1 also states that risks from gas migration and surface subsidence are to be subject to confirmation by further drilling as the development proceeds. This is confirmed by the Applicant in responding to PWG's written representation that the model would be refined as additional data was obtained to obtain approval to operate under the COMAH legislation as the project proceeded (REP198, paragraph 3.113).

5.30 A crucial aspect of the accuracy of the 3D model is whether the data is sufficient to justify approval at this stage of the planning process, which we return to at paragraph 5.60 below. Having reviewed the data used for the 3D model, we consider that the model will need to be refined for three principal reasons:

- 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
- 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
- if the Applicant's 3D model is inaccurate, it may not be possible to construct 19 caverns of the capacity proposed.

Depth to Top of Halite in the Polygons

5.31 The depth to the top of the halite in the two polygons is given by the Applicant in the diagrams in the GSR (APP37) and summarised on drawing number MMD-277663-0029 (REP207, Appendix 2) in answer to our further written questions. The depth to the top of the halite in the northern polygon is shown as between 260m and 340m below ground level (subject to the accuracy of the 3D model). The Applicant states that this has been validated using

data from the Arm Hill Borehole (west of the northern polygon), Cote Walls Farm Borehole (south east of the northern polygon), Hackensall Hall E1 Borehole (north of the northern polygon), and seismic line IELP-99-25 (crossing the southern part of the polygon).

5.32 PWG dispute the depth to the top of the halite in the areas of proposed caverns 8, 10 and 11 in the northern polygon. They consider that the 3D model has overestimated the depth to the top of the salt. The Cote Walls Farm Borehole gave the top of the salt at 281m, yet the GSR indicates the top of the salt as 322m at cavern 8, 306m at cavern 10 and 325m at cavern 11 (REP170, paragraphs 5.54 to 5.57). The Applicant has not responded directly to this point in PWG's written representation, but acknowledged that the more northerly area of caverns has less available information (REP198, paragraph 3.115).

5.33 The depth to the top of the halite in the southern polygon (subject to the accuracy of the 3D model) is shown on the drawings to be between 300m and 460m below ground level. This is less well validated and relies on data from the Burrows Marsh Borehole to the east of the polygon, and an assumed projection of seismic line IELP-99-25. We note that there is no factual geological data available within the southern polygon itself.

Thickness of Halite in the Polygons

5.34 The thickness of the halite is well documented in the areas of the former brine field for which there are reliable borehole records and seismic surveys. However, the presumed thickness variations of the halite in the two polygons are dependent on the projection of data from the adjacent areas. The boundaries of the polygons have been defined by drawing exclusion zones around the known boreholes and faults, and the former salt workings (both brinewells and the salt mine). There is, therefore, no direct evidence of the thickness of the halite within the proposed areas for cavern development themselves.

5.35 Obviously, to have sufficient data on the thickness of the halite in the two polygons, the base of the halite has to be well understood. We sought clarification in our written questions on the top, bottom and thickness of the halite bed. In response, the Applicant provided us with a drawing giving the output of the 3D model on thickness (REP207, Appendix 4, drawing number MMD-277663-0031). We have used this presentation of the data in our assessment.

5.36 The 3D model predicts that the halite thickens westward beneath the Wyre Estuary. We consider that this is a reasonable conclusion based on the westerly thickening of the halite proved in the former salt workings and observed in the seismic profiles.

5.37 The thickness of the halite in the northern polygon is based on the revised interpretation of seismic line IELP 99-25 and borehole data. The 3D model gives the thickness in the northern polygon as between 140m and 260m. However, as discussed in paragraph 5.23 of this report, PWG dispute the data used for the thickness of halite in the north-east of the northern polygon.

5.38 The estimated thickness of the halite in the southern polygon is based on the data from only one borehole (Burrows Marsh deviated), which is close to the eastern margin of the polygon. However, as noted in the BGS report, seismic line GC81-336 has a large omission zone under the Wyre Estuary at the level of the halite (REP203, Appendix 15, figure 18) and therefore it provides no data for the halite thickness or position in the southern polygon. The 3D model gives the thickness in the southern polygon as between 240m and 400m, but there is no borehole or seismic data to support the higher values for this thickness range.

Location of Faults

5.39 Identification of the location of any faults is a critical element of understanding the suitability of the Preesall Halite for UGS. Faulting impacts on the integrity of the halite and overlying strata to retain the stored gas as faults can provide gas migration pathways. The location of faults needs to be identified, with confidence, so that the design can ensure that the caverns are constructed at a safe distance from them (see paragraph 5.69 below).

5.40 The Applicant has provided drawings in the GSR to show their interpretation of the positions of faults (APP37, figures 3.8a and 3.8b). The location of the polygons with respect to these assumed positions is then shown in the GSR (APP37, Appendix B, drawing number MMD-277663-0002 (2 sheets)). We note from these drawings that there are no faults shown within the polygons – indeed this is the point: the polygons are defined as areas which avoid all known hazards (APP37, paragraph 6.1.3).

5.41 The location of faults within the Preesall Graben has been subject to detailed representations from PWG and other IPs (for example, REP170 and REP176). This is particularly with regard to the location of the Burn Naze Fault, other intra-grabenal faults, and the possibility of undetected west-east fracture zones which may affect the integrity of the proposed caverns.

5.42 The western and eastern limits of the Preesall Halite deposit are marked by the Burn Naze and Preesall Faults. The Preesall Fault is well-defined and its location is not disputed. However, the position of the Burn Naze Fault beneath the Wyre Estuary is poorly constrained and has been reasonably accurately located at only one point, but to the south of the application site on seismic line GC86-DU371.

5.43 The BGS paper on faulting at Preesall (REP218, Appendix 1) reviews the evidence for the location of the Burn Naze Fault. It notes that the fault encountered in the Hackensall Hall Borehole E1 could either be the Burn Naze Fault, a smaller parallel subsidiary fault or an extension of the Arm Hill Fault. The implications of these options for the integrity of the assumptions about the position and thickness of the halite in the northern polygon are not discussed by the Applicant. However, the Applicant has assumed that the Burn Naze Fault passes through Hackensall Hall E1 Borehole, which is deemed to be a conservative assumption for planning separation distances (paragraphs 5.23 and 5.24 above).

5.44 The positions of several faults with relatively small (<20m) displacements were recorded in the former brine field (REP203, Appendix 13 drawing number MMD-277663-0019), based mostly on borehole data. Similar small faults might be present in both polygons, but there is no evidence to confirm or disprove this.

5.45 Up to six larger faults with displacements of tens of metres to over 100m have been recorded in the seismic sections west of the flood protection embankment, and therefore outside the application area (Canatxx G and F seismic sections on drawing number MMD-277663-0027 (REP207, Appendix 1)). Three of these faults are predicted by the 3D model to intersect the halite west of the southern polygon, one intersects the halite east of the southern polygon, and two are presumed to die out northwards before they reach the southern polygon.

5.46 We consider that the exact positions of the faults in the area west of the embankment vary from poorly defined to speculative. There is no evidence to confirm the presence or absence of faults in the southern polygon, as there is no seismic line across the southern polygon that images these features at the level of the halite.

5.47 SoCG1 states that the two potential cavern development areas have been identified to avoid the hazard zones relative to the known geological hazards of faults, wet rock head and the mining hazards of solution brinewells and dry mining (SoCG1, paragraph 2.7.2). However, we note that although the polygons are located in areas which avoid known faults, at this stage in the development process there is no certainty that there are no faults within the polygons.

5.48 We have considered the evidence and taken the SoCG1 into consideration, and it is our opinion that:

- the Applicant's assumption about the location of the Burn Naze Fault is conservative for the purpose of spatial planning of the westerly caverns (with regard to the separation distance from the Fault, see paragraph 5.69 below)
- there is insufficient data to confirm that there are no faults within the polygon areas

- additional survey work will be required to confirm or disprove the presence of faults within the polygons.

Salt Purity and Interbeds

5.49 NPS EN-4 states that salt purity and the possible presence of shale bands must be considered by the Applicant with regard to cavern design. The Applicant has assessed the quality of the halite from samples and tests undertaken on cores recovered from the boreholes and through interpretation of the geophysical logs (APP37, section 4). The Preesall Halite is typically viewed in terms of two member bodies: the upper halite body which analyses show has an insoluble content range from 2.5 to 8.2%, and the lower halite body which analyses indicate is purer with insoluble percentages of <1% (APP37, paragraph 4.1.4 and figure 4.1).

5.50 The GSR presents the Preesall Halite as containing discrete mudstone interbeds ranging from a few mm to several metres thick. The Hay Nook Borehole data clearly shows at least 5 mudstone interbeds (APP37, section 4 and tables 4.4 and 4.5).

5.51 The Applicant states that mudstone interbeds within halite deposits are not unusual within the UK and have not been the cause of significant problems in existing UGS caverns (REP207, paragraph 5.41). The caverns in Cheshire are given as an example and also Kiel in Germany where salt caverns have been operational since early 1970 (REP203, Appendix 5).

5.52 At the detailed design stage, the Applicant would need to analyse the actual insoluble content of the halite and mudstone interbeds encountered at each cavern position. We consider that it is not unreasonable to assume that analyses undertaken of halite immediately outside the polygons would be indicative of the within them. We agree therefore that the purity of the halite and mudstone interbeds do not present an issue with regard to cavern design, and therefore the application before us.

Relationship between the Order and the COMAH Regulations

5.53 The Order would provide permission to construct up to 19 caverns with a working volume of up to 600 Mcm of gas, with the supporting infrastructure. The positions of the caverns are indicative within the "area for cavern development" i.e. the two polygons (Schedule 9, Requirement 6). Subsequent to the authority being granted by the Order, detailed approval for cavern design and operation would be needed from the Competent Authority under the COMAH Regulations. This detailed approval is principally to ensure the safe operation of the hazardous elements of the project (caverns, GCC and wellheads) and includes a review of the geology, design and operation of each cavern.

5.54 The COMAH process is not a filling out of the principles of development authorised by the Order but is a separate regulatory

process. We note that it is not for the Competent Authority to assess whether the two polygons would be capable of storing the total volume of gas which would be granted by the Order. We also note that the Order would enable the Applicant to begin construction of the supporting infrastructure for cavern washing (sea outfall, seawater pump station, booster pump station, river crossings etc), before the ability of the caverns to contain gas safely has been fully established and approved by the Competent Authority.

5.55 The relationship between the development to be consented by the Order and the detailed approvals given under COMAH Regulations has been a matter of concern to us, particularly as the Applicant lays great stress on the integrity of the COMAH process in satisfying outstanding information and data needed to confirm the salt thickness and safety.

5.56 We held an IS hearing on 19 September 2012 to question the Competent Authority and the Applicant on these matters. Unfortunately, the HSE were not able to attend, but submitted a written statement which answered some of our questions (REP242 and REP244). The Applicant submitted four detailed papers on the COMAH process (REP243) which confirmed our understanding that approval of the pre-construction safety report would include detailed design of the caverns. This would take into account the geology of the caverns on a cavern by cavern basis.

5.57 The Applicant's view is that the data available regarding geology is suitable at this stage to enable development consent to be granted, and that further refinement of the geological model would be undertaken during the COMAH process (REP202, response to Q1/7(m)). At the IS hearing, the Applicant confirmed that additional geological investigations would be undertaken, which might include surface seismic surveys, prior to detailed design. These surveys might be undertaken on a cavern by cavern basis and the 3D model would be validated as the development progressed. Cavern development would start at the better geologically understood locations and proposals would be submitted for these to the Competent Authority for approval while the remaining caverns were being designed.

5.58 At the IS hearing, the Applicant also stated the intention to construct the outfall and the cavern washing facilities before starting construction of the caverns themselves. The decommissioning fund provided for in the s106 agreement is there to protect WBC in case the operator went into liquidation during construction. This reinforced the concern we have that the Applicant could construct the cavern washing infrastructure, brine outfall, etc, before the ability of the polygons to sustain the size of cavern development included in the Order is fully demonstrated.

5.59 We accept that there must be no duplication of the safety aspects which require approval under the COMAH Regulations. However, we consider that it is for us to determine, within the PA 2008, if there is a reasonable prospect on the basis of the data submitted that caverns could be constructed in the two polygons to retain the consented volume of gas, before the Competent Authority considers the safety issues.

Sufficiency of Geological Data for Decision?

5.60 NPS EN-4 requires that a detailed geological assessment is provided to demonstrate the suitability of the geology at the site (EN-4, paragraph 2.8.9). The British Standard on Functional Recommendations for Storage in Solution–Mined Salt Cavities (BS EN 1918-3, section 4.2) also recommends that:

> '*available geological and geophysical data should be gathered in a pre-feasibility study before deciding on the exploration of a saline site. Additional geological or geophysical surveys may have to be carried out if existing data are not sufficient. The geometry of the saline mass should be investigated by seismic survey if seismic data are not available. ….This summary should also be used to define the most favourable zones for location cavities, taking into account the depth and thickness of the saline layer, the distribution of insolubles and the proximity of possible tectonic zones*'.

We have considered therefore whether the data provided is sufficient to define adequately the favourable zones for cavern development at this stage such that the Order could be confirmed.

5.61 It is clear that whereas the data from the former brine field has been used to create a digital model validated by factual data, in the area west of the flood protection embankment the presumed extensions of faults and steep dips have been added to produce a composite model that includes manual reinterpretation of data.

5.62 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. However, by the very nature of defining the two proposed cavern development areas by avoiding known hazards, the polygons have been located in areas in which there is little geological data. The assumption that the polygon areas are therefore suitable for the cavern construction is based on extrapolation of data in the 3D model, and that the faulting does not extend into these areas. This may be entirely plausible, but in our view will only be confirmed beyond reasonable doubt as further detailed geological surveys are carried out.

5.63 The question of whether or not salt caverns could be constructed in the Preesall Halite is not disputed. The evidence collected to date

indicates that the halite is a continuous, relatively thick, albeit faulted, bed that thickens westwards across the former brine field from mostly >100m to >200m thick. World wide there are examples of gas-storage caverns in halites <50m thick. However, as stated earlier (paragraph 5.17), we consider that this site cannot be compared with others and must be considered on its own merits.

5.64 The availability of geological data is nonetheless an improvement on that presented in the last planning application in 2009 when it was concluded that there was insufficient information to ensure that the geology of the area could safely accommodate the proposed caverns (see paragraph 4.30 of this report). The improvement arises from the presentation of some additional geological data which has been generated since that time, and the earlier data has been brought together in a comprehensive review in the GSR.

5.65 However, the relatively small amount of additional geological data consists largely of the reinterpretation of Burrows Marsh and Hay Nook Boreholes, reinterpretation of the seismic-reflection lines and alterations to the digital geological model. We consider 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.

5.66 PWG and other IPs noted that 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 (REP170, paragraphs 5.13 and 5.14, REP166, paragraph 3.1.5). 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. 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. This step is necessary before work commences on constructing surface infrastructure, and is a matter we return to in Chapters 7 and 9.

Design of Caverns

5.67 SoCG1 between the Applicant, LCC and WBC agrees that an indicative cavern layout has been defined within the two polygon areas which has a working gas capacity of 600 Mcm. An indicative design of 19 caverns is shown on drawing numbers MMD-277663-0002 (APP37, Appendix B) and MMD-277663-0027 (REP207,

Appendix 1) within the two polygons. Possible diameters, depths and capacities are shown in the GSR table 6.3, to achieve a working gas volume of 558 Mcm (at 50% probability).

5.68 We have reviewed the indicative design and agree that, subject to the accuracy of the 3D model and the adoption of the design recommendations, the indicative design of 19 caverns is feasible. The probability of the achievement of the gas volumes is discussed further below in paragraphs 5.74 et seq.

Cavern Design Recommendations

5.69 The design recommendations for the project are given in the GSR (APP37, table 6.1) and would be secured by Requirement 6 of the Order. An additional parameter giving a separation distance from caverns and brinewells of unknown shape was added in answer to our further written questions. The recommendations give the following minimum separation distances or salt pillar widths (where R is the radius of the cavern):

- 3R from Burn Naze fault and other intra-grabenal faults
- 4R from existing caverns or mine workings
- 2R from existing boreholes
- 4R from mapped wet rockhead areas
- 3R halite pillar width between caverns
- 1R halite cavern roof thickness
- 0.2R cavern base from the base of halite body
- 5R from a former brine cavern of unknown shape and any brine run that may be connected to it (new clause added REP207, paragraph 5.47).

5.70 We asked the Applicant for evidence of which international geological bodies have endorsed the recommendations intended for cavern design and examples where they have been applied to UGS. The Applicant has not provided any examples and responded that there are no international or national standards for the design of caverns, and that the design recommendations were developed by Professor Rokahr based on his 30 years experience of cavern design in salt (REP207, paragraph 5.38).

5.71 The Applicant states that these design recommendations are conservative at the planning stage. A margin for error would not be added because the design recommendations are not minimum safe distances (REP207, paragraph 5.53). Should the Order be granted, the actual layout and design of the caverns would be determined by the COMAH process, on the basis of detailed individual cavern analysis rather than simply relying on the design recommendations (REP207, paragraph 5.42). Requirement 6 of the Order would allow for such changes, provided that no more than 19 operational caverns are created within the two identified polygons and no more than 600 Mcm working capacity of gas is created.

5.72 In view of the detailed involvement of the Competent Authority in the structural design of the caverns as part of the COMAH process, we consider that the design recommendations and the indicative layout provided are acceptable for planning purposes at this stage, but with the important proviso that the layout is subject to the validation of the 3D model.

Operating Pressures

5.73 The safe allowable range of gas operating pressures in the caverns will be dependant on the overburden pressure and therefore the depth of each individual cavern. Maximum and minimum gas pressures of 83% and 30% of the vertical overburden pressure have been proposed by the Applicant (APP37, section 6.2.1) and would require review by the Competent Authority. This working range, applied to the indicative design (APP37, table 6.3), gives maximum and minimum operating pressures at the casing shoe of 92 bar and 22 bar respectively. A maximum pressure of 95 bar has been included in the application for HSC (APP15).

Cavern and Gas Volumes

5.74 The Applicant has provided a statement from their consultant Professor Rokahr that:

> *'on the strength of my 30 years experience in salt mechanics and salt cavern construction, I can confirm that stable, gas tight salt caverns can be constructed in the Preesall salt formation for the storage of natural gas'*
>
> (APP37, Appendix D, page 151).

As stated, this is accepted by us, but we note that he gives no assurance about the specific volume or number of caverns that can be created in the two polygons proposed in the application.

5.75 The design example given in the GSR (APP37, table 6.3) gives a gross cavern volume of 16.5 Mcm, storage of gas volumes of 832 Mcm, with working volume of up to 558 Mcm at standard temperature and pressure. However, we note that this indicative design in the GSR is given as 50% probability, with the maximum volume in the Order of 600 Mcm being achievable at only 30% probability (APP37, paragraph 6.2.1.1). The Applicant's Monte Carlo probability analysis has been based on the assumption that the 3D model of the polygons with regard to the top and bottom of the halite and lack of faults is accurate. The variables tested in the probability analysis were cavern shape and aspects of insoluble content of the halite (APP37, table 6.2).

5.76 As stated in paragraph 5.25 above, our view is that if the interpretation of Hackensall Hall E1 Borehole is incorrect, then the 3D model may overestimate the thickness of halite available for UGS in the northern polygon by up to 120m. The consequence of

this would mean that the Applicant would not be able to construct caverns of the height, volumes, or the maximum working pressure indicated in the GSR (APP37, section 6). Our own rough order of magnitude calculations show that a reduction in cavern height of caverns 1 to 6 could reduce the working volume of these six caverns by up to 60%. However, these caverns only provide 26% of the total working volume, and therefore this reduction would reduce the total working volume by only 15%. We consider that even in this event, such a reduction would be consistent with the maximum volume indicated in the application.

5.77 PWG dispute the depths to the top of the halite in the areas of proposed caverns 8, 10 and 11 in the northern polygon (REP170, page 35). If their interpretation happens to be correct and the halite deposit is shallower than the model predicts, then the maximum operating pressure of the caverns will be lower than that designed and the available working volume will be reduced by approx 1%. We do not consider that this would represent a material variation.

5.78 However, if any of the faults shown in Canatxx Seismic Line G (see paragraph 5.45 above) extend into the southern polygon, one or more of the caverns may have to be excluded. This polygon would hold the largest of the proposed caverns and therefore the inability to construct a number of these caverns safely would materially impact on the total working gas volume achievable. For example, the loss of four of the largest caverns (15, 17, 18 and 19) which are in alignment with potential fault extensions would reduce the total working capacity by 35% (see APP37, table 6.3 for indicative cavern volumes). If in extreme circumstances all three scenarios occurred together, the total capacity could be reduced by over 50%. We consider that this would be a material variation in what the application is seeking, and we return to this matter in Chapter 9.

5.79 The GSR presents a geology review process leading from identification of salt presence, through scoping placement of caverns to scoping front end design (APP37, figure 1.1). The Applicant confirmed that they consider that they are now in the final stage of scoping front-end design, and that the process is used to provide a realistic assessment of the location and sizes of the probable caverns and associated infrastructure in support of the application for development consent (REP203, response to Q1/1).

5.80 We agree that the design is feasible, but consider that the risks associated with the project require a more realistic assessment of the location and sizes of probable caverns. The Applicant has put only a 30% probability of the design achieving the working gas volumes included in the Order even if the 3D model is proven accurate (as discussed in paragraph 5.75). Therefore if the 3D model is incorrect, the probability of achieving the working gas

volumes included in the Order may be even less than 30%. We conclude therefore that more geological data from within the polygons is needed to validate the model and so improve the probability of the design.

ASSESSMENT OF RISKS RELATED TO GAS STORAGE

5.81 In the second part of this chapter we turn to the key risks which may affect the suitability of the site: geological risks, risks associated with the gas infrastructure at the site, and risks that impact on the community and local amenities.

Risks Associated with Geology

5.82 As stated earlier, the Applicant is required by NPS EN-4 to provide a study of the geological integrity of the overlying strata and potential for collapse, with consideration for the long term integrity of the affected strata. Other risks we have considered are the permeability of the rocks in the Preesall Graben, shallow depth of the caverns, proximity of the caverns to the historic brinewells and salt mine, and risk of seismic activity. These matters are of particular concern to LCC and WBC in their LIRs (see paragraph 5.15 above), and many IPs in their written representations, especially PWG.

Subsidence, Crown Hole Collapse and Decommissioning

5.83 The risk of subsidence is a subject of concern to many IPs, because of the clear visual evidence of subsidence and crown hole collapse in the areas where historic brinewells and the salt mine operated (REP166, section 4.4, REP170, REP256).

5.84 Subsidence is a recognised risk with regard to UGS as discussed in NPS EN-4. Moreover, the Competent Authority requires that details of design with regard to subsidence are included in the COMAH pre-construction safety report (HSE SPC/Enforcement/185 Guidance for Inspectors, section 6).

5.85 SoCG1 agreed with LCC and WBC states that the geology has been sufficiently defined for an analysis of the risks from gas migration to be assessed and surface subsidence to be calculated, subject to confirmation by further drilling as the development proceeds. We have considered the support to the caverns from the overlying strata, and the two different types of subsidence: general ground subsidence and the more catastrophic crown hole collapse. We then assess the Applicant's proposals for long term decommissioning of the site.

Overlying Strata

5.86 The Applicant describes the overlying strata, Breckells Mudstone and Cote Walls Mudstone, as dominantly structureless mudstones (APP37, table 4.1). Data from the BGS report on the Hay Nook

Borehole confirms the Breckells Mudstone (from 27m to 180m depth) contains occasional siltstones, rare sandstone and gypsum/anhydrite. The Cote Walls Mudstone (from 180m to 304m depth), overlies the Preesall Halite and contains siltstone beds 2m to 6m thick (REP203, Appendix 8).

5.87 Problems have arisen in the past when the halite roof of brinewells has either collapsed or been dissolved and the base of the mudstone is then left unsupported. Evidence from the existing site shows that the overlying mudstone can support the brinewells, as long as the cavern roof does not break through into the mudstone (APP36, section 3.1). If the caverns are designed and built correctly with a sufficiently thick halite roof, settlement should not be large enough for the overburden mudstones to be adversely affected. We consider therefore that provided the design considerations contained in Requirement 6 are followed, there would be little risk to the integrity of the caverns proposed in the two polygon areas.

General Ground Subsidence

5.88 General ground subsidence will occur with any excavation underground in rock. However, it is the gradient of the subsidence that can cause a problem rather than the amount of subsidence as long as it is spread over a wide area (HSE Research Report RR605, An appraisal of UGS technologies and incidents; for the development of risk assessment methodology, see page 89). We note also that the subsidence effect from shallow caverns is more obvious than with deep caverns, as the amount of subsidence is inversely related to depth (HSE RR605, page 98).

5.89 The Applicant has presented an assessment of the forecast ground subsidence, using software Salt SubSid 3D[9], which predicts a maximum total subsidence of the order of 50mm with an initial high subsidence rate immediately after construction. The maximum subsidence of 50mm would be in the area of the two polygons, with an area of influence extending approximately 1km from the site in each direction. The Applicant states that existing and proposed surface infrastructure (UGS storage infrastructure and Hackensall STW) may be expected to incur ongoing settlement of <1mm/year after the initial settlement and neighbouring residential properties will be unaffected (APP37, paragraph 5.7.2.1.2 and figure 5.15).

5.90 We were concerned about the potential impact of 50mm settlement on Hackensall STW as SoCG44 did not include an agreement on settlement although United Utilities (UU) had stated their concern to the Applicant (letter dated 24 June 2011 appended to SoCG44). As a result of our questions, protective provisions were included in

[9] Salt SubSid 3D software: no validation requested as this is industry standard software.

the Order at Schedule 8. These provide for UU infrastructure with regard to the impact of settlement on Hackensall STW. The impact of settlement on the flood defences has been provided for in a separate agreement with the EA (REP281, Appendix 26). We are satisfied that these risks are adequately covered.

5.91 As six of the UGS caverns would be directly beneath the Knott End golf course, the maximum subsidence of 50mm would apply here, but as this would be a gradual gradient and a general lowering of ground level, we do not consider that it will be a significant issue.

5.92 In answer to our written questions, the Applicant presented a drawing of the subsidence contours (REP203, Appendix 2, drawing number MMD-277663-0028), which shows settlement extending to the north of the site. This would affect Hackensall Hall (a grade 2 listed building) by approximately 20mm, Cote Walls Farm by approximately 35mm, Hays Farm by approximately 15mm and the two caravan parks (on The Heads to the south of the site) by approximately 10mm. If the rate of general subsidence from this development is limited to <1mm/year, we agree that the impact on properties will be minor. Any impacts of other settlement on the residential properties would need to be pursued as a separate matter.

5.93 The subsidence contour drawing referred to above shows that settlement in the area of the existing mines will be limited to a maximum of 23mm above BW123 and 7mm above the "at risk" BWs 44 and 50[10]. We consider that this will have a small to negligible impact on the rate of collapse of these brinewells.

5.94 The Order requires that a ground subsidence monitoring scheme is developed by the Applicant (Requirement 35), details of which are to be agreed with WBC. If subsidence is identified then mitigation measures are also required to be submitted to WBC for approval. The inclusion of monitoring points on the surface of Knott End golf course is part of the unilateral undertaking offered by the Applicant to the Club. In view of the proposed monitoring scheme, we consider the risk from general subsidence is acceptable.

Crown Hole Collapse

5.95 Evidence was provided by the Jackson family in their written representation (REP166) of the local experience of extensive crown hole collapse in the historic brinewells with particular emphasis on two events. The first was the unexpected collapse of BW88 in 1994, where photographs were taken of the development of the crown hole over a period of 4 months. The second was the crown hole at Agglebys (near Higher Lickow Farm), which collapsed in

[10] The "at risk" BW 97 is outside the zone of subsidence. See paragraphs 5.119 and 5.163

1974 and is still expanding. Cllr Jackson gave evidence at the OF hearing of the unsuccessful attempts to stop the progression of the crown holes. While all the crown hole collapses given in the Jackson representation are outside the Order area, they do illustrate the high impact of a cavern failure and how this concern of the local residents about the behaviour of historic brinewells is transferred to this application.

5.96 The Applicant has undertaken a review of the legacy brinewells (APP36). The unstable caverns are shown to be where excessive salt leaching has eroded the salt roof of the caverns into the overlying marl, which is slowly collapsing into the cavern. However, the Applicant proposes that the caverns to be created by solution mining for gas storage will have a substantial section of roof salt upon completion of the cavern washing process (APP37, paragraph 5.7.1.4).

5.97 Knott End Golf Club stated its fear of the effects of subsidence, as proposed caverns would be under 40% of the golf course. If any subsidence occurs during construction or during operation, the Club considers that the business will be ruined (REP256). We agree that if there were to be a catastrophic crown hole collapse of the new UGS caverns under the golf course area, this would have a detrimental effect on the long term viability of the club. However, with the COMAH controls in place to be met before cavern construction starts, we consider that such collapse is very unlikely.

5.98 The Order provides for the minimum design parameter of a distance equivalent to the cavern radius (1R) between the cavern roof and the top of the halite bed (Requirement 6). This will be subject to Competent Authority review in the COMAH process. The monitoring scheme proposed for general ground subsidence would also identify any developing crown holes. In the light of the combination of the design parameters, the COMAH approval of design and construction, and the ground monitoring proposals, we consider the risk from crown hole subsidence from the new caverns is low.

Decommissioning of Caverns

5.99 NPS EN-4 requires the Applicant to consider the long term integrity of the site after decommissioning or closure. A number IPs stated their concerns that the caverns must be adequately maintained in the very long term after the life of the project. PWG for example stated in their written representation that:

> '*when gas storage caverns are abandoned they will have to last forever without collapsing which is something that any programme of maintenance would not be able to guarantee*'
>
> (REP170, paragraph 5.139).

The local experience is that of the legacy brinewells which, despite being filled with brine and being capped off, continue to show signs of subsidence and on occasions blow outs (for example BW45 in June 2011).

5.100 The Applicant states that after cavern construction, measures will be put in place to monitor cavern "health" and to track subsidence through time (APP37, paragraph 5.7.1.2). Processes and guidelines are specifically tailored to provide cavern integrity, so they should not experience the same problems as the legacy brinewells (APP37, paragraph 5.7.1.4). After the life of the project, if there are no alternative uses for the caverns, they would be emptied of gas, filled with brine and sealed, with an ongoing programme for monitoring and maintenance of the wellheads (APP30, paragraph 8.4).

5.101 The Order provides that a decommissioning, restoration and aftercare plan must be approved by WBC before any stage of the construction commences. The funding of the decommissioning work is subject to a s106 agreement between the Applicant and WBC as set out in Appendix A. We consider therefore that decommissioning of the caverns and other project infrastructure has been adequately provided for.

Permeability of the Halite, Mud Interbeds and Faults

5.102 The permeability of the halite with its interbeds and faults is of concern to many IPs because of the risk of gas migration. Both LCC and WBC comment in their LiRs that:

> '*the Applicant's proposed cavern creation techniques (bottom up) are designed to enable minerals other than salt (insolubles such as mudstone inclusion and discrete beds) to fall to the base of the cavern. However the geological occurrence of such minerals creates the potential to allow gas migration through the surrounding rock strata. Any such migration could present very significant public dangers dependant upon where and in what concentrations the gas emerges or is able to collect. The integrity of local geology is considered to be very important in determining the acceptability of any particular proposal*'
>
> (REP193, paragraph 12.18 and REP194, paragraph 12.17).

5.103 We have reviewed the evidence provided in relation to the permeability of the mudstone interbeds in the halite, the nature of the overburden rock, the possible effects of faulting on the permeability and the permeability tests undertaken by the Applicant.

Mudstone Interbeds

5.104 As set out in paragraphs 5.50 and 5.51 above, the Preesall Halite contains discrete mudstone interbeds ranging from a few mm to several metres thick. The Applicant states that mudstone interbeds within halite deposits are not unusual within the UK and have not been the cause of significant problems in existing caverns (REP207, paragraph 5.41). We have reviewed the data and accept that the mudstone interbeds as illustrated in the GSR are unlikely to cause a risk.

Faults

5.105 The locations of the faults in the Preesall Graben are discussed in paragraphs 5.39 to 5.48 of this report. They are a matter of concern for several IPs because if present in a significant degree they would provide possible gas migration pathways (for example REP170, pages 46 to 49).

5.106 We have reviewed the particular concerns expressed by PWG about potential gas migration across the Burn Naze Fault into the sewers on the Flyde Peninsula, Fylde Interceptor Tunnel and Fleetwood WwTW[11] (REP170, pages 92 to 98 and REP206, page 18/19). The potential impacts of gas accumulation in the Flyde Interceptor Tunnel include fears of explosions in the Fleetwood and Blackpool areas as well as environmental impact from failure of the wastewater treatment facilities.

5.107 We note that UU has agreed a SoCG which states that the UU infrastructure is not at risk from the project and that there appears to be a low risk of gas migration (SoCG44, paragraph 3.32). We understand that PWG's concern relates to the proximity of the Burn Naze Fault to the closest caverns. We consider that the location assumed for the Burn Naze Fault by the Applicant (by Hackensall Hall E1 Borehole) is a conservative estimate, insofar as they have assumed it is farther east and nearer to the polygons than alternative interpretations might suggest. For this reason, we accept the assurances given by the Applicant to UU that the risks of gas migration are negligible.

5.108 However, as set out in the paragraphs above dealing with the adequacy of geological data, in the absence of site investigation data in the area of the two polygons, we consider that there could be faults within the polygons that have not been identified to date.

Permeability Tests

5.109 The Applicant has carried out laboratory and in situ permeability tests on a small number of samples in the Arm Hill Borehole and

[11] Fleetwood Waste Water Treatment Works is located on the western side of the Wyre Estuary serving Fleetwood and Blackpool.

Hay Nook Borehole (APP37, section 4.4.1). Results of these tests have been analysed by their industry experts, with the Applicant's consultant Professor Rokahr making the following statements:

> '*To construct safe gas caverns in salt formations it is essential that the salt rock surrounding the cavern is of adequate strength, and that the permeability of the salt is so low that the rock is effectively gas tight. The laboratory tests conducted to date on the rock samples from the Preesall salt formation, and the additional tests in two boreholes, show without any doubt that the salt rock is adequately strong, and that the Preesall salt formation can be classified as gas tight*" and "*for the formation of a cavern field, it is necessary that the mechanical and thermal parameters of the local salt formation at each separate cavern location are determined on the basis of laboratory tests*'
>
> (APP37, Appendix D, page 151).

5.110 SoCG1 agrees that the geology has been sufficiently defined for an analysis of the risks from gas migration to be assessed, that the risk of gas migration has been considered in a source-pathway-reception analysis, and the conclusion is that the risk has been assessed as negligible.

5.111 We concur that, subject to a site investigation identifying the location of any faults within the polygons and any faults just outside the polygons which would influence the integrity of a cavern, the risks are acceptable.

Depth of Caverns

5.112 The Order requires that all caverns have to be constructed below 220m below ground surface level and confined to within the Preesall Halite (Schedule 1, Work No. 1A). If the 3D model is correct, the minimum depth to the top of the halite in the polygons is in the northern polygon at approx 260m near Cote Walls Farm (see REP207, Appendix 2 drawing number MMD-277663-0029). With a one radius cavern separation to the top of the halite, the shallowest cavern roof level would be cavern 3 at 314m (APP37, as shown in the indicative design table 6.3). The Applicant does not explain why the figure of 220m is included in the Order, given that the 3D model predicts a minimum depth of 260m. We consider that this is an indication of the degree of uncertainty of the accuracy of the 3D model, and the Applicant is allowing for the actual top of the halite body to be shallower than currently indicated.

5.113 It has been asserted by several IPs that the halite deposits at Preesall are too shallow for safe storage of gas (for example REP160). If the Order is granted, some UGS caverns would be

amongst the shallowest in the UK, but we do not consider that this necessarily means that they would be unsafe.

5.114 HSE Report RR605 states that worldwide, caverns are found at depths ranging from 700 to 1700m (HSE RR605, section 2.2.7.3.2). The Preesall caverns (in the indicative design) would be located between 314m and 745m (APP37, section 6.2.1). The overburden is an important factor in the design of the caverns; it is part of the structural support for the cavern (HSE SPC/Enforecment/185: Guidance to Inspectors) and determines the operating pressure in the caverns. We note that whilst some of the caverns would be shallower than other examples in the UK, they would be operated at a pressure which is determined by their depth i.e. shallower caverns would be operated at lower pressures. This is an aspect of the structural design of the caverns which would be assessed in detail by the Competent Authority as part of the COMAH process.

5.115 In view of this, we consider that the depth proposed for development of caverns in the Order is acceptable.

Proximity of UGS Caverns to Historic Brinewells and the Salt Mine

5.116 The proposed cavern development polygons would be adjacent to the historic Preesall Salt Field where brine abstraction and salt mining have been undertaken since the 1870's. There are 122 abandoned brinewells, flooded crown holes and a flooded salt mine. The polygons have been selected by the Applicant to avoid all known hazards. We consider therefore that an understanding of the historic brinewells and salt mines is important to our assessment of whether they pose a risk to the integrity of the proposed caverns for UGS.

5.117 In addition, LCC and WBC have asked that the ExA should be satisfied that the former caverns are stable and do not pose any risk to above and below ground infrastructure (REP193, paragraphs 11.3 and 11.5, REP194, paragraphs 11.3 and 11.5). We have considered the risk to the new proposed caverns separately to any risks to the remaining above and below ground infrastructure, which are discussed later.

5.118 The written representations from IPs, particularly the Jackson family (REP166) have evidenced the subsidence of land and the collapse of the historic brinewells and damage to property. Surface evidence is clear at the relevant sites, for example BW88 crown hole collapse near Height O'th Hill, BW52 crown hole collapse near Higher Lickow Farm and BW45 blow-out failure.

5.119 The Applicant has undertaken an Impact Assessment of the legacy brinewells within the influencing distance of the proposed scheme (APP36). 18 brinewells were assessed which were within influence

distances from UGS infrastructure of 120m for crown hole collapse and 100m for blow-out failures. The Impact Assessment identifies three brinewells (BW44, BW50 and BW97) which could pose a significant risk in relation to crown hole development. However, these three old brinewell caverns are over 400m from the nearest polygon area. As set out in the section on design parameters (paragraph 5.69 above) the Applicant proposes a minimum separation distance of 4R (4 x cavern radius) from any existing caverns or mine workings.

5.120 From the drawings (REP207, Appendix 1 drawing number MMD-277663-0027), we estimate that the distance between the northern polygon and the lower mine working is a minimum of 140m. The exact location of the boundary of the lower mine is not known accurately, but the depth is given as 274m, with the depth of the upper mine at 143m (APP37, paragraph 5.1.1). The proposed cavern closest to the mine would be at a minimum depth of 350m and therefore deeper than the old mine workings; it is shown on the drawings as being over 250m from the closest plotted lower mine location. This is in excess of 4R for the largest cavern of 50m radius, and we consider therefore that this would allow an adequate factor of safety for the unknown element of the lower mine position.

5.121 The Applicant has agreed to undertake a monitoring and maintenance programme covering the legacy brinewells. This commitment has been included in the s106 agreement with WBC. SoCG1 agrees that the risk from historic salt abstraction has been assessed and will not impact on the proposed project. We conclude that the risk from historic mining and solution cavern workings should not impact on the cavern development.

Wet Rockhead Pathways and Wild Brine Runs

5.122 The issue of wet rockhead is important at Preesall because of the history of wild-brine pumping in the area. This was an unstructured method of brine extraction undertaken in the early 20th century in which water was pumped into one area of the brine field and abstracted from another without any real understanding of how the brine moved between them. Wild brine runs are the route the brine took from the source of water to the extraction point of the brine. Wet rockhead may also be a natural phenomenon if there is ground water movement as the top surface of the halite dissolves in the ground water, creating voids. The water may remain saturated with brine if there is no flow, or it may continue the dissolution process if the brine is flowing.

5.123 The problems wet rockhead can present for UGS include stability, increased movement of brine (which itself has damaging effects on borehole materials) and the likelihood of further salt removal that could lead to potentially damaging ground subsidence. The issue of an UGS cavern hitting a wild brine run would be one of

permeability as the wild brine run could provide a gas pathway. If a brine run is encountered during cavern construction, the expectation is that the cavern would not pass its gas tightness test as part of the COMAH process and would need to be abandoned.

5.124 The Applicant has investigated the extent of the natural wet rockhead in the Preesall area, which lies predominately east of the application site, and outside the two polygon areas (APP37, section 5.5.1 and figure 5.7). Without re-establishment for positive flow away from the salt field, natural or anthropogenic wet rockhead cannot migrate (APP37, paragraph 5.5.5.1). This is explained in more detail in the Applicant's answers to our written questions (REP203, response to Q1/19).

5.125 The greatest risk of encountering unrecorded wild brine runs and wet rockhead would be in the northern polygon which is closest to the area where wild-brine pumping is known to have been practised. The exact location of wild brine runs is largely unknown and cannot easily be identified in seismic surveys. They are also difficult to pinpoint in boreholes. Design rules have been proposed by the Applicant for new caverns to be at least 4R from mapped wet rockhead areas and 5R from former brine caverns of unknown shape and any brine run that may be connected to it (REP207, paragraph 5.47).

5.126 The southern polygon has lower risk from brine runs as the nearest salt workings are the old ICI caverns which have been shown by sonar surveys to be little changed from their design shape (APP37, figure 5.3, page 43).

5.127 SoCG1 states that the risks from historic salt abstraction have been assessed and will not impact on the proposed project. We agree that, in view of the separation distances of 4R and 5R proposed, the risk from wet rockhead pathways and wild brine runs would be low, provided that the positions of the wild brine runs are determined with sufficient accuracy at the site investigation stage for the safe separation distances to be applied. This is a matter that would need to be considered at the detailed design stage and in the COMAH process.

Risk of Seismic Activity

5.128 There is considerable anxiety from many IPs about seismic activity in the Blackpool area and the effect that this might have on allowing underground stored gas at Preesall to escape and migrate. PWG questioned whether the Applicant has addressed the design issues sufficiently and the approach of safety zones from faults given the uncertainty of the location and size of faults in the model (REP170, paragraphs 5.148 to 5.155).

5.129 The Applicant has submitted a Seismic Desk Study which shows that the Preesall UGS facility would be located in an area of low

seismic activity (APP42). Furthermore, due to the depth of the UGS facilities they would not be subject to large forces during a seismic event. A greater risk may apply to subsurface pipelines particularly near surface liquefiable deposits and the possible failure of the wells connecting the storage caverns to the surface (APP42, paragraphs S2 and S3). The seismic hazard is low given the proposed location of the storage caverns (i.e. away from known active faults) and the low level of earthquake activity in the surrounding region (APP42, paragraph S2).

5.130 However, the GSR does state that site specific seismic risk is concluded to be of concern only in relation to construction through near surface alluvial deposits (APP37, paragraph 7.5). Further to this, the Seismic Desk Study makes design recommendations (APP42, paragraph 4.5) which will need to be considered at the detailed design stage and in the submissions as part of the COMAH process.

5.131 We have considered HSE report RR671 (Failure rates for underground gas storage) which summarises the known historical failures of UGS facilities. No failure of such a facility has been reported due directly to seismic activity. However, the HSE report highlights that the main risk to underground gas storage caverns is the failure of the well connecting the cavern to the surface. We note that drawing MMD-277663-00027 (REP207, Appendix 1) shows that the diagonal type casings to caverns 16 to 19 will need to cross a fault to connect to wellhead 7. We also consider that there may be as yet undetected faults through which the casings will have to pass.

5.132 In consideration of this, we asked a question on the risks associated with the casing passing through faults. The Applicant in answer stated that:

- the fault rupture hazard is low and any fault reactivation in the future would be at depth and very unlikely to cause rupture within the caverns or at shallower depths
- the well design has been undertaken to take account of stresses during installation and operation. As a consequence the casing thickness is greater than would normally be the case for vertical wells
- the properties of the well casing have been chosen to be ductile rather than brittle (REP207, paragraphs 5.80 and 5.81).

5.133 The Applicant has also stated that in the event of a seismic event, it would be possible to monitor parameters such as gas pressure, flow rate, fluid pressure in the annulus and gas composition to assess casing integrity. Pipeline design, with the capacity to accommodate some ground displacement, and a monitoring regime to detect leakage would be developed as part of the technical

justification within the COMAH process (REP207, paragraphs 5.84 and 5.85).

5.134 SoCG1 states that the risk of seismic activity to the development of UGS at Preesall is low. We agree with this conclusion.

Risk from Hydrofracturing

5.135 Concerns have also been raised by a number of IPs, including PWG, about the impact of hydrofracturing (commonly referred to as "fracking") in the area, and how this might allow stored gas to escape and migrate (REP170, paragraphs 5.156 to 5.158).

5.136 There were two minor earthquakes on 1 April and 27 May 2011 caused by hydrofracturing 8 km and 9km from the Preesall site, which were reported as 2.3 M_L and 1.5 M_L magnitude respectively (APP42, paragraph 2.4.1.2). The Applicant considered the impact of induced earthquakes in the Seismic Desk Study (APP42, section 2.5.1), and concluded that such small magnitude earthquakes near Blackpool would pose very little hazard to the gas storage project. Preesall is located in an area of low seismic activity and the earthquakes said to be due to fracking are well within the range common in the UK. Further, the induced seismicity from fracking is not anticipated to have any impact on the proposed caverns (REP203, response to Q1/34).

5.137 The Royal Society/Royal Academy of Engineering review of hydraulic fracturing (Shale Gas Extraction in the UK: a review of hydraulic fracturing, June 2012), refers to concerns raised by seismicity induced by hydraulic fracturing but does not recommend specific maximum seismic levels. The report states that there is an emerging consensus that the magnitude of seismicity induced by hydraulic fracturing would be no greater than $3M_L$ (felt by few people and resulting in negligible, if any, surface impacts). The risk of seismicity induced by hydraulic fracturing can be reduced by traffic-light monitoring systems that use real-time seismic monitoring so that operators can respond promptly (summary of RS/RAE Report, recommendation 3).

5.138 Moreover, we note that if the application for UGS development at Preesall is approved then Cuadrilla's[12] field licence application will need to take the presence of the UGS caverns into account, particularly with regards to the site specific surveys that would be required to identify local stresses and faults (summary RS/RAE Report, recommendation 3).

5.139 SoCG1 does not refer to the risks from hydrofracturing. We consider that the risks from hydrofracturing would not materially change the risks from seismic events as long as the operator of the hydrofracturing process takes the presence of the caverns into

[12] Cuadrilla is the Company that is exploring hydrofracturing in the region

account in its risk assessment and adopts safe operating practices. We do not consider therefore that there is reason to refuse the Order on account of any proposals being developed for hydrofracturing in the area.

Risks Associated with UGS Project Infrastructure

5.140 Unsurprisingly, most of the representations dwelt on the general concern of safety and the risks of gas explosion from the development. Out of the 10,852 residents that responded to PWG's survey, 10,234 on both sides of the river expressed concerns about the risk of wellhead explosions and 10,266 expressed concerns about gas migration risk (REP170, paragraph 12.31). Similarly, LCC and WBC state in their LIRs that they remain concerned about the proximity of a facility of this nature to residential properties and the recreational users of the area (REP193, paragraph 12.25 and REP194, paragraph 12.23).

5.141 In this section we consider the risk assessment and impact of a gas explosion associated with the UGS infrastructure assets. In the final section we assess the impact on residential properties and the health impact on the local community.

Gas Leakage from Below Ground Infrastructure

5.142 Natural gas is an extremely flammable substance and its storage is subject to strict regulations. It is non-toxic although it can act as an asphyxiant in sufficient concentrations. The major risks to the public are therefore due to fires and explosions of the gas from sudden releases and by asphyxiation from slow continual release (APP43, paragraph S4).

5.143 The risk of gas migration has been considered by the Applicant in a source–pathway-receptors analysis (utilising and developing methodologies and leak scenarios developed by HSE) and considering actual site data (APP43). Pathways included fractured mudstone interbeds, fault planes, existing underground working, wet rockhead, or matrix flow through pores. Receptors included occupied properties, project infrastructure, users of public rights of way and open land. The highest risk was shown to be to an individual within a public right of way from accidental breaching of an operational cavern by a new or existing unknown borehole. The highest risk to residential property was concluded to be from a fracture in a pipeline in the superficial soils. The likelihood of occurrence of the highest ranking scenario is calculated to be less than 1 in 10 million, which CIRIA[13] ranks as of no concern in their Report 152, 1995 "Risk assessment for methane and other gases from the ground" (APP43, paragraphs S6 to S10).

[13] Construction Industry Research and Information Association

5.144 A serious risk that was not assessed according to one representation is the slow leakage of small amounts of gas behind or through a poor joint in the casing. This could then find its way into one of the more permeable beds in the overburden mudstones, work its way eastwards in the up direction and accumulate in a basement or old mine workings. Slow leaking gas is very hard to identify in a rapid response UGS facility of this nature (REP176). However, we consider that this risk is largely dependant on the quality of the design and operation and would be subject to COMAH control processes.

5.145 We note that the Applicant's quantification of risk is considered to be unrealistic by Atkins, geological advisors to LCC. However, Atkins is satisfied that it has been done on a conservative basis and that even if the figures do not accurately represent the true risk, the risks are nevertheless extremely low (REP204, page 2).

5.146 The Applicant's risk assessment accords with HSE publication RR671, which reviews reported problems in salt caverns and gives failure rates. Of the 66 worldwide salt cavern facilities, there have been 27 reported problems, mostly in the US. There have been a total of 8 fatalities in the US and 6,700 people have been evacuated. HSE RR671 also stated that in the vast majority of cases, the incidents were not the result of a failure related to a geological event. There were two exceptions to this:

- a case where a well appears to have been crushed due to faulting (in a seismically active area, with little similarity to the UK environment)
- connection in caverns in Mineola USA where human error was ultimately to blame.

5.147 Early salt cavern storage in the US was done in brinewells that had been solution mined without consideration for subsequent storage of gas in the depleted caverns. This has sometimes resulted in later problems for retrofitted brine caverns. Because of this it would be expected that new purpose built salt caverns would be less likely to fail (HSE RR671, section 2.4 and 5).

5.148 The HSE also states that the incidents most relevant to the UGS developments in the UK have resulted from a failure of either the man-made infrastructure (well casings, cement, pipes, valves, flanges, compressors etc) or human error (which has included overfilling of caverns and inadvertent intrusion). Problems have also arisen from extreme natural events (seismic activity). The causes, scale, and severity of the accidents are also extremely variable and have in some cases been the result of a combination of factors (HSE RR671, section 2.4).

5.149 We have reviewed these cases and note that in the UK, salt caverns are built and operated under stringent safety controls under the COMAH Regulations. Further, we are reassured by the

HSE statement that UGS has an excellent safety record (HSE RR605 page 131). We note that from the reports on worldwide incidents a key risk to the underground infrastructure is from leakage into old mine workings and faults (HSE RR605). For this reason, the separation distances given in paragraph 5.69 of this report have been included as Requirement 6 in the Order for the planning of the cavern layouts.

5.150 HSE has reviewed the Applicant's risk assessment (APP43) and the application for a deemed HSC (APP15). HSE has assessed the risks from the maximum quantities of hazardous substances identified in the proposed project and are satisfied that the deemed HSC can be granted (SoCG8).

5.151 LCC and WBC have agreed that the geology has been sufficiently defined for an analysis of the risks from gas migration to be assessed and surface subsidence to be calculated subject to confirmation to further drilling as the development proceeds (SoCG1).

5.152 This site would be covered by strict monitoring and regulation by the Competent Authority as part of the COMAH process. Our conclusion therefore is that, subject to the location of faults and possible wild brine runs that might act as escape routes for the gas being identified in advance of the cavern design stage by a suitable site investigation, the risk of gas leakage from below ground infrastructure is acceptable.

Gas Leakage from Above Ground Infrastructure

5.153 The Applicant's risk assessment also considers risks to the surface facilities (including the wellheads, on-site pipework, GCC, the vent stack, brine system, methanol and glycol facilities), from external hazards such as aircraft impact, seismic event, vandalism, vehicle collision, flooding and off-site fires or explosion (APP43, section 4).

5.154 The risks are considered by the Applicant to be generally low to extremely low. It is deemed credible that vandals could damage small bore piping and instrumentation leading to a minor release and potentially local fires, but in this event multiple isolation systems would enable the wellheads to be remotely isolated from the UGS network (APP43, paragraph 4.2.3.1).

5.155 In particular an incident at or a gas leak from wellhead 1 (WH1) could damage Hackensall STW (adjacent to WH1) and could result in an environmental pollution incident. We accept that this is a low risk, but the consequence of the discharge of sewage from Knott End and Preesall into the river would have a significant, albeit temporary, impact on the SSSI. However, UU has agreed a SoCG with the Applicant and is satisfied that there appears to be a low risk to their assets (SoCG44, paragraph 4.3.1).

5.156 The Applicant's risk assessment did not cover terrorism in detail and the safety report to be produced under COMAH Regulations would not cover terrorist activity; the HSE will be advised by the Security Services and Home Office on this issue. The Applicant states that they will respond to any reasonable requests from the Competent Authority for additional safety measures (APP43, paragraph 4.2.5.1).

5.157 PWG expressed concerns about the low standard of fire safety equipment provided, the lack of high pressure water distribution pumps and mains, fire curtains at the wellheads and sprinkler system at the GCC (REP170, section 6). They are concerned that the equipment would be inadequate to provide protection to employees, visitors or members of the public from massive radiated heat caused by a jet fire situation (REP170, section 6 and REP264). The Applicant has commented that details of the fire water distribution system will be developed as design progresses and will be to the appropriate national standards. The Competent Authority will review the fire safety provisions as part of the review of the COMAH safety reports. The Applicant is not aware of any gas storage facilities that use water curtains at the wellheads; the Competent Authority may or may not require that they are installed (REP198, paragraphs 3.151 and 3.152, and REP276).

5.158 SoCG15, concerning the safety of above ground facilities, agrees that the risks to occupiers of Cote Walls Farm and the Hackensall STW have been estimated together with the risks to users of the Wyre Way footpath, Knott End golf course and anglers at a local fishing pond. In all cases, the risk assessment shows that risks are very much lower than those that the HSE would normally consider acceptable in accordance with their PADHI land use planning risk assessment method.

5.159 We note that the fire safety equipment is an aspect of the design that will be addressed as part of the Competent Authority review of the COMAH safety reports. We agree therefore that the risks from the above ground infrastructure are acceptable for the purposes of considering whether the Order should be made.

Risks from Historic Salt Workings on Project Infrastructure

5.160 The proposed new access road to the main site, the interconnector gas pipeline and the electrical control cables all enter the site along a corridor that weaves through the historic brinewell field and mine workings. The detailed route is shown on drawing number MMD-277663-0007 (APP38, Appendix A). Our concern is that this route could create a vulnerability to the project as future subsidence might damage project infrastructure and isolate the site.

5.161 LCC and WBC have also specifically requested that the ExA should be satisfied that the former caverns are stable (see paragraph 5.117 above*).* Although the local authorities' concern is about the

stability of the caverns as a whole, we are concerned only about the risks from those that are related or in proximity to the application.

5.162 The Applicant has recognised this area of concern and undertaken a number of studies:

- Legacy Brinewell Impact Assessment of the brinewells within influencing distance of the proposed scheme (APP36)
- Pipeline Subsidence Assessment Report which provides projections on life times of "at risk" brinewells and possible mitigation measures (APP38)
- Assessment of BW45 Incident (Subsurface Aspects) (APP39)
- Gas Interconnector Pipeline to the NTS (APP41), which summarises the findings of the Pipeline Subsidence Report and considers alternative routes.

Are the existing mine workings stable?

5.163 The assessments identified three brinewells (BW44, BW50 and BW97) which could pose a significant risk in relation to crown hole development. BW44 and 50 are close to Higher Lickow Farm and the cavern roofs are actively migrating; BW97 is near Height O'th Hill. Key roof migration data for these three "at risk" brinewells show that:

- BW44: roof migration projected to reach critical collapse depth in the early 2050s; crown hole predicted within the life of the project (APP38, figure 4.2b)
- BW50: roof migration to reach critical collapse depth within 10 to 20 years; crown hole predicted within the life of the project (APP38, figure 4.2b)
- BW97: roof migration to reach critical collapse depth towards the end of the life of this project (our interpretation from graph of BW97, APP36, Appendix C).

5.164 The blow-out (of brine and air) of BW45 in June 2011 near the entrance to the site has been referred to in the written representations and is used to highlight the concerns with regard to safety (REP170, section 7 and REP166, page 34). The Applicant's report showed that the blow out was explained as a mechanical failure of the casing just above the brine/air interface and did not involve the cavern structure (APP39, paragraph S13). The brinewell is not one of the "at risk" brinewells, and the Applicant has not needed to make any changes to the project design as a result of the blow-out (APP39, paragraph S13). We accept that BW45 does not pose an increased risk to the project as a result of the blow-out.

Do the existing mine workings pose a risk?

5.165 NPS EN-4 requires that the Applicant should undertake desk top surveys to identify historic or current mine workings when

assessing routes for a pipeline (NPS EN-4, paragraph 2.19.10). The Applicant has provided a plan of the hazard zones along the proposed pipeline corridor which show the pinch points along the route between the projected crown holes of BW44 and BW50 and the outer edge of the upper mine (APP41, figure 24). The minimum pipeline corridor is approx 40m wide with 100mm ground settlement projected (APP41, figure 25). The infrastructure to the site would pass through this pinch point.

5.166 The gas interconnector pipeline has been designed to pass 32m from the predicted long-term drawdown of the crown hole collapse of BW50, and theoretically it should not be affected (APP41). Nonetheless, we are concerned that should the crown hole be larger than forecast, this could pose a serious risk to the integrity of the pipeline. The consequences of such failure are similar to any breach along the pipeline to Nateby, as there will be sub-surface isolating valves that will isolate the caverns in the event of a breach.

5.167 However, we consider that the speed and security of repair would be more complex and the amount of gas lost from the 12km long pipeline could cause a hazard. The Applicant plans to implement a monitoring programme and has proposed mitigation measures if monitoring provides early warning of ground deformation impacting on the pipeline (APP38, section 6.3 and figure 5.1). We note that the pipeline route and design will be subject to the Pipeline Safety Regulations 1996 (APP30, paragraph 9.5) which will ensure that the gas interconnector pipeline is designed, constructed and operated safely. HSE will be notified of the route prior to construction under Regulation 20.

5.168 We consider that the gas pipeline is uncomfortably close to brinewells at risk of collapse, and the proposed route is a high risk during the life of the project. However, as the safety of the pipeline would be governed by the Pipeline Safety Regulations 1996, the ground will be monitored and mitigation measures are possible, we do not consider that this risk is sufficient reason not to confirm the Order.

5.169 The proposed new access road onto the site follows a similar route to the pipeline. A catastrophic failure of BW50 into a large crown hole collapse would also impact on the access road. However, there is an alternative emergency route onto the site (Acres Lane) which could be used temporarily while an alternative access is constructed in the event of access road subsidence, so we agree that the risk of road failure is adequately provided for.

5.170 The 132kv electricity supply cables follow the same route as the pipeline within the site, so the same risks and mitigation measures would apply. Outside the application site the cables also pass close to BW97 which is an "at risk" brinewell cavern (APP36, drawing number MMD-277663-0027, APP5 part 1 drawing number A-9100-

010 and REP207, Appendix 1). Two cables are proposed on separate circuits, so that in the event of failure in one supply the second cable could be used (APP33, paragraph 2.48). The Applicant further suggests that coiled cables could be used to mitigate the effects of potential subsidence (APP36, paragraph 5.1.3). As both supply cables to the site would be adjacent to BW97 and within the influence of a BW50 collapse, we consider that the Applicant could route at least one of the electricity supply cables away from BW97 and BW50, or provide standby generation for safety critical equipment. This is properly a matter for consideration by the Competent Authority under the COMAH Regulations and not to take into account in deciding whether or not to confirm the Order.

5.171 Higher Lickow Farm would house the administrative offices and the security gatehouse. It is close to the "at risk" BW 50 (APP38, Appendix A, drawing number MMD-277663-0007). However, we consider that consequences of future settlement on the above ground infrastructure at the gatehouse and farm buildings would be manageable as the facilities could be moved elsewhere.

5.172 The other above ground infrastructure proposed would be more distant from the existing mine workings and we consider therefore that they would not be at risk.

5.173 The Applicant proposes to monitor the "at risk" brinewells and other brinewells that pose a potential influence on the proposed UGS infrastructure (APP36, table 3.1). The s106 agreement with WBC provides for a brinewell monitoring and maintenance scheme, to be approved by WBC. We accept that this scheme would enable the Applicant, the Competent Authority and WBC to keep track of developing risks from the existing and proposed caverns.

Risks to the Community and Amenities

5.174 Many IPs expressed concern about the safety of the UGS proposal so close to residential properties and amenities. Although we appreciate that the safety aspects of the development would be checked, reviewed and monitored by the Competent Authority under the COMAH Regulations, at no part of the COMAH process is there any consultation with the public. This application for development consent is the only opportunity that the public have had to express their concerns. Moreover, NPS EN-1 section 4.13 requires us to assess any adverse health impacts of the development.

5.175 LCC and WBC state in their LIRs that they remain concerned about the proximity of a facility of this nature to residential properties and recreational users of the area. They acknowledge the SoCG with HSE, however they have requested that the ExA is satisfied that the risk to the nearest residential properties and recreational users of the area is acceptable before the HSC is issued for the

development (REP193, paragraph 12.25 and REP194, paragraph 12.23).

Distance from Residential Properties

5.176 If the caverns are correctly constructed, operated and maintained there should be no risk and the distance from residential properties would be unimportant. However, there have been several well publicised gas leaks from storage caverns and oil wells, some of which have resulted in deaths and the evacuation of large numbers of residents. Following a fatal leak at Hutchinson, Kansas in 2001, where gas travelled 11km (7 miles) from the cavern via fractured strata and abandoned brinewells, Kansas State subsequently introduced a law that prohibits the construction of gas storage caverns within three miles of a city boundary, within five miles of abandoned or active mine shafts, and within two miles of solution mining operations. All the more serious gas leakages worldwide have resulted from either an incomplete understanding of the geology or an inadequately constructed/maintained infrastructure, mostly borehole casing failures (HSE RR671, paragraph 151).

5.177 In the UK, there are no minimum separation distances from residential properties or amenities prescribed by legislation, and sites are assessed on a case by case basis by the Competent Authority. The Applicant has undertaken a risk assessment which assessed the consequences of major accident scenarios for different types of failures (APP43, section 4).

5.178 The area of effect of these accident scenarios is summarised in the Health Impact Assessment (HIA) (APP34). Preparation of the HIA was overseen by a Steering Group[14] which advised on the approach and on the final recommendations (SoCG25). The HIA illustrates an envelope of maximum area of effect (APP34, figure 8.6). The worst case distances are 844m from the GCC for flash fires and 581m from any wellhead for jet fires. People within this area would be at risk of major injury or death if a major leak or explosion occurred (APP34, section 8.4). The maximum effect area surrounds the GCC with a small extension to the north west, which covers the following houses, facilities and amenities:

- onsite work force
- residents at Cote Walls Farm
- residents at Park Cottage Farm and Park Cottage
- walkers on the Wyre Way
- work force at Hackensall STW (usually unoccupied)
- golfers on the southern end of Knott End golf course
- people around water bodies used by Alkali Angling

[14] HIA Steering Group comprised representatives from NHS North Lancashire, Health Protection Agency, Cumbria and Lancashire Health Protection Unit and the Applicant. WBC were invited but did not participate.

- boat/recreational users on the Wyre River within the effect distance from wellhead 1 (not mentioned in HIA).

5.179 The HIA states that other than the operational workforce (a maximum of 35 people), the number of people who may be within the maximum area of effect is estimated to be less than 50 at any time (APP34, paragraph 8.4.14). The Applicant's risk assessment states that the probability of a major accident or explosion occurring is extremely low and comparable to risks with which we live everyday. Cote Walls Farm is the occupied building most at risk, for which the risk of a fatality has been assessed as approx 1 in 100 million years, significantly less than the risk of being killed by a lightning strike (APP43, paragraph S15).

5.180 The draft deemed HSC direction supplied by the Applicant (REP322) includes a HSE Consultation Zone map which is mostly similar to the envelope plan in the HIA except that the outer consultation zone excludes Park Cottage Farm and Park Cottage. We consider that the extent of the proposed consultation zone map should be reviewed by HSE, with regard to consistency with the risk assessment envelope (APP34, figure 8.6).

5.181 SoCG15 concludes that an adequate assessment of the risks to the public from the above ground facilities and pipelines of the proposed gas storage facility has been provided. Risks from the above ground facilities are very much lower than those normally considered tolerable by the HSE's land use planning assessment methodology.

5.182 HSE have also agreed in SoCG8 that they have assessed the risks from the maximum quantities of hazardous substances identified in the proposed Project and are satisfied that the deemed HSC can be granted.

5.183 In view of the SoCGs signed between the LCC, WBC and HSE, and the risk assessment undertaken by the Applicant, we consider that risk to local residential properties would be low. A comprehensive risk assessment would need to be done at the cavern design stage to satisfy the COMAH requirements.

Fear of Gas Explosion by Local Community

5.184 The historic mine workings, cavern failures and subsidence have left a legacy of mistrust and fear in many IPs as to the integrity of the salt body and suitability for UGS. Local memories of the Abbeystead[15] disaster, in which 16 people were killed in 1984, have further heightened concerns about the implications of gas explosions.

[15] Abbeystead disaster: Explosion of a water pumping station caused by the accumulation of naturally occurring methane in a water transfer tunnel

5.185 The HIA report states that although the risk of an emergency scenario is low, the fear of such a scenario is likely to have a more widespread effect on the population than the actual event itself (APP34, paragraph 1.4.2). Perceptions of safety are complex and their capacity to cause stress, anxiety or depression is not limited geographically to the actual areas of risk. The responses to the consultation (APP10 and APP11) and the PWG written representation (REP170) provide a good indication that there are strong and widespread views about the safety of the proposed development that go beyond both levels and areas of risk identified in the project's quantitative risk assessment.

5.186 The HIA report recommends that the Applicant attempts to reduce the perceived safety fears by being open about their liaison with safety regulators and emergency planners and provide public information bulletins about safety audits and exercises as they occur (APP34, section 8.14). We note that the Applicant has stated that details of safety audits and exercises will be made available through the forum of the Community Liaison Panel (SoCG25, page 6).

5.187 There is no statutory requirement for public consultation under the COMAH Regulations, but under Regulation 14 the operator is required to provide to the public, and any establishments liable to be affected by a major accident, specified information concerning the major accident hazards and the safety measures that are in place. The area is determined by the Competent Authority and is called the Public Information Zone (PIZ). Operators must be proactive in providing the information, and must consider everyone who could be in the PIZ when a major accident occurs. This will include people passing though the area, for example vehicles and therefore also golfers, walkers on the Wyre Way, anglers and perhaps users of the Wyre Estuary.

5.188 The Applicant has dismissed failures in the historic brinewells and the salt mine as resulting from poor design, poor construction and lack of maintenance (REP198, paragraph 3.714). We consider that although safety details are a matter for the COMAH Regulations, the Applicant could have addressed safety considerations and procedures in more depth at this application stage. This development will require the public to have faith in the operating procedures with detailed contingency plans for the worst possible event.

5.189 LCC and WBC state in their LIRs that:

> '*the HSE has previously concluded that risks to the surrounding population arising from the proposed operation(s) are small and that there are no significant reasons, on safety grounds, to refuse HSC. The current project is smaller and a SoCG has been agreed with HSE*'

(REP193, paragraph 12.19 and REP194, paragraph 12.18).

5.190 We consider that fear is a real and major issue for the community, whether statistically justified or not. The extensive level of communication required under Regulation 14 of the COMAH Regulations is reassuring, and should help local confidence develop in the Operator if undertaken correctly. However, if the development proceeds, we ask HSE to ensure the PIZ is set beyond the boundaries given in the Applicant's letter (REP322) and ensure that it covers at least the full locality on the east bank of the Wyre River (from Knott End, Preesall, Stalmine to Hambleton).

Distance from Local Amenities

5.191 There are a number of amenities which are located within the consultation zones presented in the Applicant's draft HSC direction (REP322):

- Knott End golf course – the southern end of course is within the inner zone; the nearest golf course green and tee are approximately 100m and 80m from WH1
- Wyre Way (footpath 42) passes through the inner zone, between WH1 and 3 and adjacent to WH5 and 7; the minimum distance to the WH5 and 7 boundaries is approximately 25m (scaled off figures 1.30 and 1.32, APP19)
- anglers generally using fishing lakes to the north-east of the site would be within the outer zone; the distance from the GCC is over 300m (from the nearest lake)
- leisure craft on the River Wyre close to WH1 would be in the outer zone
- footpaths FP45, FP61 and FP 43 are all within the inner zone and would pass close to WH 4 and 5 and the GCC.

5.192 Knott End Golf Club is very concerned about the proximity of parts of the golf course to WH1. The Club requested that WH1 be moved farther to the south to improve the minimum separation distance (REP260).

5.193 The Wyre Way is part of the Lancashire Coastal Way path. Therefore, users may not be locals and well briefed about the implications of the site in an emergency. The Applicant has stated that the Wyre Way does not pass though a prospective COMAH site because the wellhead compounds and the GCC will not constitute an open continuous COMAH site. LCC and the emergency services will be consulted by the Applicant as to what warning signs and other measures should be employed to warn the public (REP276).

5.194 Not withstanding the above, we note that the Wyre Way passes within the inner consultation zone, and not the middle risk zone as stated in the risk assessment (APP43, paragraph S16). We are concerned about the proximity of the Wyre Way to the wellheads (see paragraph 5.191) as long distance walkers will not be aware

of the risks. However, we also accept that the risk to walkers is low, and consider that the alternative of closing the Wyre Way is not desirable.

5.195 Local anglers use the ponds to the northeast of the site, by Acres Lane. However, these are in the outer zone, and at a lower risk. Occasional users of the river, which could fall within the outer risk zone, are unlikely to be informed of the risk. However, we consider that the risks are also low, as they could only approach at high water and WH1 is in an elevated position.

5.196 SoCG15 on safety of above ground facilities agrees that risks to users of Wyre Way footpath, Knott End golf course and anglers at a local fishing pond are much lower than those that HSE would normally consider acceptable in accordance with their PADHI land use risk assessment method (SoCG15, paragraph 2.4.1).

5.197 The Applicant's letter to landowners states that:

> '*HSE land use planning advice approach is risk based. HSE's PADHI methodology accords outdoor sports facilities a level 2 sensitivity and therefore HSE would not advise against a COMAH site development unless it placed the golf course in the inner risk zone*'
>
> (APP15, Appendix F, section 9).

As an observation, the Applicant needs to clarify whether HSE are referring to a golf course or golf club facilities, as parts of the Knott End golf course will be within the inner zone.

5.198 We consider that the risk to amenities is low, but we remain concerned that future changes in applied safety distances for top tier COMAH sites or advice from the Home Office regarding terrorism could result in the enclosure of the wellheads and GCC into one secure site. This would result in both closure of the Wyre Way and have a negative impact on Knott End Golf Club. We note that the Applicant has stated that it is not their intention to close the Wyre Way (REP198, paragraph 3.22) and we consider that possible future changes in legislation and safety practices do not provide reasons to refuse the Order in this regard.

Response to Emergencies

5.199 There is a high level of concern from IPs about the inability to evacuate a large number of people from the area in the event of an emergency (for example REP170 and REP176). This concern is attributed to the inadequacy of the road network from the peninsula and the high number of elderly residents in the area. Of the 10,852 residents that responded to PWG's survey, 10,007 on both sides of the Estuary expressed concerns about the adequacy of evacuation procedures should a major incident occur.

5.200 We have noted the potentially congested nature of the road network and particularly the difficulties that might be encountered on the A588 if emergency services were trying to access the Preesall site while residents were leaving the area either towards Poulton-le-Fylde or Lancaster.

5.201 The Applicant has not provided any preliminary assessment of how large an area might need to be evacuated, either in the event of a real incident or as a contingency precaution, or how an evacuation might be managed. This is because the evacuation plan will be part of the off-site emergency plan which is generated as part of the COMAH approval for the site (COMAH Regulation 10). The preparation of the plan is triggered by the Competent Authority, and this will occur when the facility is close to being operational (REP198, paragraph 3.265). The responsibility for defining the off-site emergency plan lies with LCC who are required to communicate the necessary information to the public and to the emergency services and authorities concerned in the area.

5.202 We consider that an early assessment of the evacuation procedures might have allayed the fears of the community, and this could have been assessed as a possible risk as part of the risk assessment at this stage. However, in view of the fact that any emergency evacuation procedures will be assessed by LCC and the Competent Authority, and the risk assessment shows that the likelihood of a major emergency is very low, we conclude that the possible evacuation of the public is not a significant factor whether or not the Order should be made.

CONCLUSION

5.203 Paragraph 2.8.9 of NPS EN-4 requires a detailed geological assessment to demonstrate the suitability of the geology at the site for the type of underground gas storage proposed. The assessment should include depth below surface, salt thickness, salt purity and presence of shale bands which could affect cavern design, integrity of the overlying strata and potential for collapse, taking account of proposed minimum and maximum working pressures.

5.204 The Applicant has presented a comprehensive account of the known geology at Preesall in the GSR (APP 37). However, we note that much of the analysis has been based on reinterpretation of data that was provided for the previous unsuccessful planning applications.

5.205 Where there is plentiful data in the south and east of the application area, the geology is deemed to be unsuitable for cavern development because of the faulting and location of historic brinewells. The Applicant has identified two polygon areas as suitable for cavern development as they avoid all known hazards, whilst acknowledging that data in these areas is sparse. We consider that there is no direct evidence that the assumption in the

3D geological model that there are no faults in the polygons is correct. We note that no seismic surveys have been undertaken across the two polygons to confirm or disprove the presence of faults or confirm the thickness of the halite.

5.206 We consider that our uncertainty with regard to the accuracy of the 3D model in conjunction a probability of only 30% of achieving the Order storage capacity (APP37, paragraph 6.2.1.1) highlights the lack of confidence about the suitability of the geology to support the development proposed.

5.207 The issue therefore is whether sufficient geological information exists at this stage to enable the Order to be confirmed, granting development consent for up to 19 caverns to store up to 600 Mcm, leaving the detailed design to be progressed on the basis of further investigations to be supplied to the Competent Authority under the separate COMAH process. We fully acknowledge the need to avoid duplication of this regulatory regime (NPS EN-1, paragraph 4.10.3). Even though this arrangement has evidently worked elsewhere in the UK in handling UGS facilities as the Applicant points out (REP243), we remain of the view that the complex geology of the Preesall area requires a more robust understanding of the capacity of the halite to accommodate the volume of gas proposed to be stored.

5.208 This is because of our concern that if the Order is approved as it stands, the Applicant would need to construct the surface infrastructure i.e. the GCC, the cavern washing infrastructure, which includes the marine outfall, pumping stations, and river crossings etc, in parallel with seeking COMAH approval of the preconstruction safety reports for cavern construction. It is conceivable that the geology might not be able to support the proposed gas storage volumes, in which event the surface infrastructure would have been designed for greater capacity than is needed, or at worst would be redundant. This would have caused disruption to the community and the environment for little benefit.

5.209 The geological uncertainty could be settled by the Applicant undertaking a comprehensive survey to confirm the geology within the two polygons. If the Applicant is correct and the 3D geological model is validated, then construction of the surface infrastructure can proceed with confidence. If the model is not validated to demonstrate that the volumes of gas storage can be achieved at least substantially in line with that being requested for approval, then our conclusion is that the development should not proceed. Our recommendations as to how this next step should be provided for within the Order are set out in Chapters 7 and 9.

5.210 Our assessment of other matters regarding associated UGS risks at Preesall – geological risks, risks associated with the gas infrastructure at the site, and risks that impact on the community and local amenities – is that they are not sufficient to refuse the

Order. We understand and appreciate the public fear concerning safety. However, because detailed design of both the site subject to the COMAH Regulations and the interconnector pipeline will require consultation with HSE and EA, as the Competent Authority, we are confident that safe operating practices will be properly enforced.

Tables of Key Geological Data

Table 1: List of Deep Boreholes (listed in north to south orientation)

Borehole Name	Year	Depth to top halite	Depth to base halite	Thickness of halite	Comments/location
Hackensall Hall E1 (ICI)	1940	317m	398m	81m faulted	70 m outside top north west edge of northern polygon. Depth of halite of over 220m used in 2010 3D model. No full log: source CR/05/183N table 3. This borehole data defines the north section of the model. Thickness and faulting is disputed.
Arm Hill (Canatxx)	2004	366m	607m	>236m	Near booster pump station location. Ties to seismic line IELP. Source CR/05/183N table 3
Cote Walls Farm (BGS)	1974	281m	not reached	not reached	Ties to seismic line IELP.
Burrows Marsh (middle deviated) (Canatxx)	2008/ 09	388m	741m	320m	Located at Barnaby Sands between the 2 polygons. Between indicative caverns 11 and 16. Ties to the omission zone of seismic line GC81-336.
Hay Nook (Canatxx)	2009	301m	554m	253m	Approx 150m from cavern 19, south of southern polygon. Ties to seismic line Canatxx G. Additional tests post 2009 for this application.
The Heads (Canatxx)	2003	226m	430m	c 210m	Approx 650 m south of southern polygon. Thickness approx 210m. Source BGS CR/09/040 fig 5 and CR/05/183N table 3.

Sources:
1. GSR section 3.3 (APP37)
2. BGS Report CR/09/040 (REP203, Appendix 6)
3. BGS Report CR/05/183N (REP203, Appendix 15)
4. Drawing number MMD-277663-0027 (REP207, Appendix1)

Table 2: List of Seismic lines			
Seismic Line	**date**	**Location**	**Comment**
GC81-336 (Gas Council)	Oct 1981	East to west across the development site.	Omission zone across the Estuary and therefore data for the southern polygon is limited. (ref BGS report CR/05/183N)
GC86-DU371 (Gas Council)	1986	East to west and gives data across the river, but passes on the southern border of the DCO site.	Identifies location of Burn Naze Fault to south of site.
Canatxx D	1997	NE to SW in the area of The Heads. Approx south east of the south tip of the southern polygon.	Crosses Canatxx F.
Canatxx F	1997	East to west in the area of The Heads. Approx 550m south of southern polygon.	
Canatxx G	1997	East to west in the area of the Heads. Approx 150m south of southern polygon.	Ties to Hay Nook Borehole.
IELP -99-25 (Independent Energy Lancashire Plains)	1999	NW to SW across the site. Clips the northern polygon area.	
Fugro Aperio	2010	In vicinity of old mine workings to identify SW boundary of mine.	Not shown on drawings.

Sources
1. GSR table 3.3 (APP37)
2. Drawing number MMD-277663-0027 (REP203, Appendix 15)
3. BGS Report CR/05/183N (REP207, Appendix1)

6 FINDINGS AND CONCLUSIONS: OTHER MATTERS

LANDSCAPE, VISUAL IMPACTS AND DESIGN

6.1 The impact of the proposal on the landscape of Preesall to the east of the Wyre Estuary and the extent to which it would alter the visual appearance of the locality was the subject of several representations.

6.2 LCC and WBC maintain an objection to the proposal on the basis it would have an unacceptable impact on the visual amenities of the area. They consider that the negative effects of the proposal on the open countryside and rural environment strongly outweigh the positive influences on the coastal and urban environments. Mitigation measures would not be sufficient to reduce the overall harm of urban features in the rural environment and the project would cause a fundamental change to landscape character from the introduction of urban features (as seen to the west of the Estuary) further to the east (REP193, paragraph 17.5, REP194, paragraph 21.4).

6.3 SoCG20 between the Applicant and LCC, endorsed also by WBC, and SoCG21 between the Applicant and NE cover agreements about the methodology and baseline conditions only, which apart from some factual corrections are agreed.

6.4 The SoCG with NE agrees there would be no effects upon designated landscapes, the closest one of which to the application site is the Forest of Bowland AONB which lies within 5km of the NTS feeder near Garstang, the eastern most part of the application site (SoCG21).

6.5 The LIRs submitted by LCC and WBC (REP193 and REP194) set out the site description, history of salt extraction and current development proposals, and we used these as a context for considering the impact of the application on the landscape.

The Character of the Wyre Estuary

6.6 The analysis of landscape, together with seascape, townscape and visual amenity is set out in the ES (APP17, chapter 14 together with several Appendices). The present appearance of the Wyre Estuary in which the application proposals are set is broadly a contrast between the urban areas of Fleetwood and Thornton to the west of the Estuary, and the largely rural areas of Preesall to the east.

6.7 The Fleetwood side of the Estuary has experienced considerable change since the establishment of the town as an early planned coastal resort reinforced by the arrival of the railway in the 1840s. This was followed by the beginnings of the salt extraction industry and a major industrial plant operated by what became ICI, and then the development of Fleetwood as the third largest fishing port

in the country and associated fish processing industries. More recently, Fleetwood was a ferry port with services to the Isle of Man and Ireland. Virtually all of these industries have now closed, with a small residual fish processing activity remaining at Fleetwood, and the former ICI plant at Thornton now being redeveloped as an industrial business park. New residential development is taking place adjacent to the former Fish Dock at Fleetwood, and some of the port area has been redeveloped for an edge of town retail scheme. There are large areas of the redundant ferry terminal awaiting new uses.

6.8 By contrast, the eastern side of the Estuary is rural, with small hamlets and villages, and in mainly agricultural use. It is characterised by two distinct landscape character tracts; the low-lying mudflats and salt marshes associated with the Wyre Estuary, and an established agricultural landscape of the coastal plain comprising medium-sized fields enclosed by hedges and scattered farmsteads.

6.9 However, this is the area where salt was extracted both through the construction of the mine and pumping brine. This has left a legacy in terms of the appearance of the landscape, through wellheads marking the position of redundant wells or caverns for brine extraction, and several small lakes and ponds where salt caverns have collapsed. In some cases, the process of collapse is still taking place, and areas of subsidence and surface lakes are fenced to prevent public access. When the Preesall Salt Field was in full production, the landscape was considerably different from its present open and rural appearance, with drilling rigs and substantial industrial plant (REP166). Though this has all but disappeared, the evidence of former salt extraction activity is easily seen through the range of surface features.

6.10 Little development is proposed in the development plan for the Preesall side of the Estuary, and the Estuary itself is a major nature conservation asset, designated SSSI and part of the Morecambe Bay Special Protection Area, discussed later in this chapter.

6.11 The landscape on the eastern side is unlikely to change much in the future therefore, as the area gradually recovers from its past. This is not an area subject to any formal landscape protection policies in the development plan. The overriding impression from vantage points looking across Wyre Estuary towards Preesall is currently one of openness and limited built development. Those new elements of infrastructure which have been constructed recently are not prominent features in the landscape, for example the Hackensall STW and several 33kv overhead power lines.

6.12 In our view, the eastern side of the Estuary where most of the elements of the application are proposed both above and below

ground is not now a scarred heavy industrial landscape into which major new built development can easily be inserted.

Visual impact

6.13 The size and scale of proposed development is therefore an important and relevant matter in assessing its acceptability. In this regard, the differences between the development proposed on each side of the Estuary are important. The seawater pump station in the Fleetwood Fish Dock would be 7m to ridge height and would be constructed of brick and timber cladding with a metal roof sheeting covering. It would echo the existing buildings in the Fish Dock along Herring Arm Road, and is acceptable to WBC.

6.14 Apart from the seawater pump station and the observation platform at Rossall, all the development proposed on the western side of the Estuary would be underground pipelines for seawater, brine and electrical circuits with no residual visual impact once construction is complete.

6.15 By contrast, most of the surface development proposed in the application would be located on the eastern side of the Estuary. The booster pump station is proposed to be located immediately to the east of the existing Hackensall STW, with wellhead 1 immediately to the north. The booster pump station would be a single-storey building 7m to ridge height containing pumping equipment, electrical controls, switchgear and standby generator. The building is proposed to be faced with brick with a slate roof, and designed to have the appearance of an agricultural building. Adjacent to the booster pump station would be a debrining facility (which is essentially a large square open settlement tank), and low level hydrocyclones and water pumps. The site covers an area of 0.5ha. The STW does not present a major intrusion in the local landscape, and there seems to be no reason why the booster pump station located adjacent to it should not be similarly contained.

6.16 At Higher Lickow Farm, the smaller of the existing barns would be demolished, and the larger one rebuilt on the existing footprint to provide staff facilities and a maintenance workshop. The existing farmhouse would be refurbished to provide health and safety training accommodation. A new single-storey gate house would be constructed immediately to the east of the farmhouse on Monks Lane. The new barn rebuild would be brick and slate pitched roof, similarly the gatehouse, and both would echo the style of the existing farmhouse.

6.17 In addition to the GCC, booster pump station and debrining facility, the other noticeable surface development would be the 7 wellhead compounds to provide the means of connecting the 19 caverns to the GCC. The application drawings show indicative designs for the wellheads only, as detailed design of the wellhead compounds

would require approval by WBC as the development proceeds within the terms of Requirement 4 of the Order.

6.18 The GCC would be the largest element of surface infrastructure required to operate the UGS facility and would be clearly visible from the west side of the Estuary. The compound covers an area of approximately 3ha, with two buildings and external industrial plant, contained by an earth bund and a security fenced area.

6.19 The two GCC buildings would house the compressor station, electrical equipment and utilities, and are similar in design being approximately 8.5m high and 7.0m high respectively, each with a gross floor area of approximately 350m². All other plant and processing equipment in the compound would be exposed, and not contained within buildings. This would be plant and equipment to condition the gas for entry to the caverns and return to the NTS, and would include compressors, dehydration units, air cooled heat exchangers, filters, separators, storage tanks, utilities and electrical equipment. According to the drawings, the two glycol towers would be approximately 12.5m high, 3m diameter. Included in the compound would be a 100m diameter pond for emergency firewater as well as handling surface water run-off, and a vent stack approximately 15m high (APP19, figures 1.39 to 1.44 and REP203, response to Q5/1).

6.20 The whole compound including the water pond would be enclosed by a 2.4m high security fence of dark green polyester coated mesh, and with CCTV cameras. The GCC would be lit by a low-level lighting scheme which will be developed during the detailed design stage. The lighting would be activated only where and when needed in a particular area of the compound during inspection by staff (REP203, response to Q5/2). It is not proposed there will be any permanently installed floodlighting. The GCC would not be manned as the UGS facility would be operated from a control room located at the booster pump station.

6.21 The existing ground contours around the GCC are proposed to be remodelled using spoil from construction activities elsewhere on the site. This would help screen the southern and western aspects of the GCC when viewed from the Wyre Way and the west side of the Estuary. The photomontages show the likely visual impact as seen from the east along the proposed private access track to the compound from Higher Lickow Farm, though this would not be a view many people would experience (REP203, Appendix 25). With planting on top of the bunds, all but the glycol dryers at 18.5m AOD, and the vent stack at 20m AOD in the middle of the firewater pond would be reasonably well screened.

6.22 Alternative locations were considered by the Applicant for the GCC, including land to the west of Burrows Hill, but were rejected due to the potential visual impact on the Wyre Estuary. Consideration was given also to locating the compound on the west bank of the Wyre

Estuary (APP28, Appendix 1). However, this was determined to be unacceptable on safety grounds of proximity to built development. The preferred location south of Cote Walls Farm would be close to the proposed main development area. There are no brinewells or other old workings in the vicinity and therefore the Applicant argues there should be minimal risk of subsidence in this area. Our conclusion is that the location proposed for the GCC is acceptable, in view the absence of practical and suitable alternative locations.

6.23 Given that the size and scale of the proposed GCC development as a whole means that it would not be possible to screen it completely in the landscape, the issue is whether it has particular characteristics that are so damaging as to render it unacceptable as a matter of principle. We found the photomontages, and the indicative heights represented on the site on the day of our second site visit, particularly helpful in conveying the visual impact of the development in the locality. In our view, the earth mounding and landscaping has the promise of screening most of the lower elements of the GCC from nearly all directions and therefore substantially reducing its impact in the landscape. But its size and scale means it will be a large, permanent collection of industrial plant and equipment in what otherwise appears to be a largely undeveloped and rural landscape.

6.24 The gas metering station towards the end of the pipeline connection to the NTS at Nateby would be a small single-storey brick built building 5.5m to ridge height, in similar style to other new buildings intended as part of the project and is uncontroversial.

Design

6.25 Plainly, the design of the proposed development has a major bearing on how successfully it could be assimilated in the landscape, and the impacts mitigated. Noting the advice in paragraph 4.5.1 of NPS EN-1 that the nature of much energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area, we looked particularly carefully at the design solution adopted. Given the previous history of planning applications for similar proposals for gas storage in this locality, the basic elements of the buildings have been considered previously, and comments by WBC as the local planning authority taken into account in formulating this proposal. As a result, the design of the seawater pump station at Fleetwood and the booster pump station adjacent to the STW at Hackensall are acceptable to WBC in design terms.

6.26 During the examination, we considered the extent to which the GCC could be improved in terms of design of its components coupled with siting within the landscape to reduce its overall impact. The Applicant considered that the proposals as set out and explained in the Design and Access Statement (APP29) represent

the optimum and argued why no further improvements are feasible (REP207, response to Q28). In the light of this and from our own experience of visiting the site and the locality, we conclude that the scope to reduce further the landscape impact of the GCC is limited given that its design is a result of the function the development is intended to perform.

Mitigation

6.27 The extent to which the visual impact of the GCC in particular can be further mitigated beyond the landscaping proposals referred to in paragraph 6.23 above is therefore an important matter.

6.28 The Landscape and Ecological Management Strategy Plan (LEMSP) covers the east side of the Estuary, an area of approximately 93ha, and includes land functionally linked to the adjacent Wyre Estuary SSSI which is an integral part of the Morecambe Bay SPA. It seeks to minimise the effects of the project on landscape character and local views as set out in the ES and would be implemented over a phased programme during the construction phase i.e. years 1 to 3. The LEMSP is a working document produced in consultation with NE, EA, Lancashire Wildlife Trust, RSPB, LCC, WBC and tenant farmers. The version submitted as part of the application was revised in May 2012 (REP203, Appendix 25) and has been the subject of SoCGs agreed with all the bodies (SoCGs 4,5,35 to 38).

6.29 The construction phase (years 1 - 3) and the construction and operation combined phase (years 4 - 8) of the project would result in a significant effect on the character of this landscape. But over time we consider the mitigation proposals in the LEMSP would reduce these effects so that early in the operational phase (year 10) they would be considered not significant for most elements of surface infrastructure.

6.30 To our minds, the fencing around the wellhead compounds would appear to create an adverse visual intrusion, even after the completion of landscaping proposals. As the photomontages in the ES clearly show a simple concrete post and chain-link fence is not an attractive means of providing the necessary security in an otherwise rural area (APP20). However, we see this as a matter which could be looked at in detail by WBC when approving fencing and landscaping proposals within Requirements 4 and 9.

6.31 In terms of other proposed built development, the seawater pump station in Fleetwood Fish Dock, the booster pump station and the small gas metering station near Nateby buildings do not give rise to particular difficulties, and the proposals for Higher Lickow Farm would offer a positive benefit.

6.32 It is the GCC which would create the main landscape impacts. The landscape in the vicinity of the GCC is not covered by any formal or informal landscape designations. However, the landscape is

considered to have a high sensitivity because of its interrelationship with the adjacent Wyre Estuary and its natural habitat which are formally recognised through designation as being of national/international importance (APP17, Chapter 14). With regard to the nature of the project and the type of change envisaged (particularly during the construction phase), this landscape is also considered to have a low to medium capacity for change.

6.33 The mitigation proposed will go a long way to ameliorating these adverse effects, and whilst the GCC itself would be approved as part of the Order, Requirement 9 in Schedule 9 provides for the detailed landscaping proposals to be submitted to WBC for approval, giving effect to the LEMSP. But we remain of the view that as a consequence of its size and scale and components, and because it would have low level lighting, the visual likely impact of the GCC would be an overall serious disbenefit of the proposal.

FLOODING AND SURFACE WATER DRAINAGE

6.34 The application was accompanied by a Flood Risk Assessment (FRA) (APP18, Appendix 17.1) as required by NPS EN-1 paragraph 5.74. There were few comments from IPs on flooding and LCC and WBC did not make any comments on flooding or drainage in their LIRs (REP193 and REP194).

6.35 SoCG22 has been signed between the Applicant and the EA, which agrees the following:

- methodology used by the Applicant for the FRA
- information on sources of flooding
- findings on coastal flood risk
- development implications with regard to possible to the monitoring and repair of crest levels of the flood defences
- requirements and approach to obtaining flood defence consent.

Flooding

6.36 The Design and Access Statement states that:

> *'due to its coastal location, flood risk is an issue for the Project. A comprehensive Flood Risk Assessment has been carried out and buildings have been sited to avoid flooding'*
>
> (APP29, paragraph 5.20).

6.37 The primary source of flood risk in the application area is coastal, arising from the Wyre Estuary (APP17, paragraph 17.4.30) with predicted flood levels in the application area of between 6.08m and 6.41m AOD (APP17, table 17-10). There are flood defences on the east side of the Estuary which protect the main Preesall site, with a crest height of approx 6.3m AOD. The EA report that the flood

defences should protect the land to a 1 in 200 year standard (APP17, paragraph 17.4.31).

6.38 The FRA (APP18, Appendix 17.1, section 8) notes that the following infrastructure assets will be located in Flood Zone 3 (high probability of flooding):

- wellheads and manifolds; however, they will be able to accommodate flooding and are located behind the existing flood defences (APP18, Appendix 17.1, paragraph 1.16)
- parts of the GCC; however, all assets that cannot accommodate flooding will be located at a minimum height of 7m AOD
- vent stack and firewater pond; although the infrastructure can accommodate flooding
- Stanah Switchyard; the level of protection offered by existing flood defences would be determined at the detailed design stage
- brine discharge pipeline at the sea wall crossing; however, the scheme design will maintain the existing standard of flood protection
- sections of the main access road; however, these will be at existing ground level, and will not prevent the safe operation of the proposed infrastructure (APP18, Appendix 17.1, paragraph 1.1.8).

6.39 The Sequential and Exception Tests required by EN-1 at section 5.7 have been applied for the critical infrastructure located in Flood Zone 3 (APP18, Appendix 17.1, paragraph 8.3.8 and 8.3.9). The critical assets which could not tolerate flooding would be located in Flood Zone 1 (low probability of flooding). We note from the application drawings that the finished floor levels of the buildings at the GCC, booster pump station and sea water pump station have been set at 7.0m AOD, which is above the 1 in 200 year flood level indicated by the EA (APP19, figures 1.41, 1.23 and 1.17). The security buildings at Higher Lickow Farm are set at 12m AOD (APP19, figure 1.37).

6.40 Proposed bunding around the GCC and booster pump station is to assist in mitigation of visual impact (APP29, paragraph 5.21), not for flood protection. However, the FRA states that work will be undertaken at the detailed design stage as to the whether additional flood storage is required to compensate for potential displacement of floodwater as a result of the visual bunds (APP18, Appendix 17.1, paragraph 1.17).

6.41 Although there is also a potential fluvial flood risk to the project, the mitigation of the coastal flooding, (which presents the worst case scenario), would ensure that the project is safe from fluvial sources of flooding and would not increase the flood risk elsewhere during the operational phase (APP18, Appendix 17.1, paragraph 6.3.6). The FRA also confirms that with appropriate groundwater

protection measures in place (for example vulnerable assets raised slightly above ground levels) the risk of groundwater flooding to key infrastructure is considered to be low (APP18, Appendix 17.1, paragraph 6.4.4).

6.42 We conclude that the Applicant has complied with the requirements of EN-1. Some infrastructure will be in Flood Zone 3, but we agree that this element of the infrastructure passes the Exception Test (EN-1, paragraph 5.7.17) and there will be no increase in flood risk elsewhere.

6.43 However, we also note that the flood defences are in an area of future settlement which would be caused by the proposed cavern development, as discussed in Chapter 5 of this report, and noted in SoCG22. Protective measures have been agreed with the EA with regards to liability for maintenance of the flood defences in the event of such settlement (see paragraph 5.90).

Drainage

6.44 The FRA states that with the implementation of a suitable surface water drainage strategy there should be no significant risk to proposed infrastructure from surface water flooding. It is proposed that the surface water drainage strategy is developed at the detailed design stage after the Order has been granted (APP18, Appendix 17.1, paragraph 1.1.10). We accept that the strategy would ensure that surface water runoff is effectively managed within the application boundary and that there would be no increase in third party risk.

6.45 We have reviewed the risks from flooding and are satisfied that the proposals for dealing with them are satisfactory for the purposes of considering whether the Order should be made.

PIPELINES

6.46 We have assessed the proposals for the gas interconnector pipeline to the NTS as well as the other key pipelines in the application (APP27). There were few representations from IPs about the pipeline routes except on CA matters (see Chapter 8). LCC and WBC in their LIRs note that construction of the pipelines will cause some disturbance across the Fleetwood Peninsula, but they accept that these will be temporary and reversible (APP193, paragraphs 9.3 and 9.8, APP194, paragraphs 9.3 and 9.8).

Gas Interconnector Pipeline to the NTS

6.47 NPS EN-4 applies to gas transport pipelines that are over 800mm in diameter and over 7 bar in pressure. It requires that when designing the route, the Applicant should consider relevant constraints such as proximity to residential properties, below surface usage, and environmentally sensitive areas.

6.48 The gas interconnector pipeline would be 12.4km long, 1200mm external diameter and would connect the GCC at Preesall to the NTS at Nateby (APP27, paragraph 1.2.3). We understand that it would operate at up to 95 bar to allow gas to free flow between the caverns and the NTS (APP30, paragraph 7.13).

6.49 The Applicant has presented a review of possible pipeline routes in the report Gas Interconnector Pipeline to the NTS (APP41). The proposed route is mainly cross country and crosses one main road (A588), six minor roads, nine tracks and four rivers or water courses (APP27, paragraph 1.6). The A588 and certain of the minor roads and rivers will be crossed by trenchless means. All other crossings will be open trenched with temporary access or diversions provided (APP27, paragraph 1.6).

6.50 We have reviewed the proposed route and note that it avoids residential properties (APP41, paragraph 6.9), does not pass through any National Parks, Areas of Outstanding Natural Beauty or statutory designated sites for nature conservation (APP20 figure 9.1). It does cross Pilling Moss Head Dyke and Pilling Moss Eagland Hill, non-statutory designated sites for nature conservation, both of which are agricultural land (APP20, figures 9.2 and 9.3). The pipeline would be laid underground by traditional open trench methods. We consider that the route selected is acceptable.

6.51 We questioned the Applicant on the impacts of the pipeline route on farming operations. The Applicant confirmed that the route is almost entirely agricultural land, a mixture of grassland for livestock production or ploughable land for arable enterprises (REP203, response to Q8/1). The pipeline would be laid mostly in open trench and the installation would cause short and medium term disruption to existing farming operations. There would be no permanent impact as the land will be reinstated and returned to agricultural production. Several IPs expressed concerns about the impact on the pipeline route on their farming practices; these are addressed in Chapter 8 below. We have reviewed the alternative routes across the agricultural land provided by the Applicant and agree that the proposed route is acceptable.

6.52 The section of the pipeline route as it enters the main Preesall site passes through an area of existing brinewells and subsidence. This has been considered in a separate report submitted by the Applicant: the Pipeline Subsidence Assessment Report (APP38). We have considered this section of the pipeline route in the previous Chapter of this report (paragraphs 5.166 and 5.167).

6.53 At the Nateby end of the pipeline, the application includes proposals for construction of a gas metering station. This would be on agricultural land adjacent to the existing NTS feeder Control Valve Station (APP19, figures 1.49 and 1.50) and accessed via a private farm track. We have received no representations

concerning its location. Our conclusion is that the location proposed is acceptable.

6.54 We have reviewed all aspects of the pipeline routes and conclude that the risks are acceptable for the purposes of considering whether the Order should be made. However, we note that, if the Order is confirmed, the gas interconnector pipeline will require approval from HSE under the Pipelines Safety Regulations 1996.

Brine Discharge Pipeline

6.55 The proposed brine discharge pipeline would be approximately 8.1km long, 900mm external diameter and would run between the booster pump station at Preesall and the discharge point into the sea 2.3km offshore at Rossall (APP27, paragraph 1.2.2).

6.56 The brine pipeline would require a crossing of the Wyre Estuary, two main roads (A585 and A587), one minor road (B5268), one minor estate road by Harbour Village and the crossing of the Blackpool-Fleetwood tramway (APP2, paragraph 1.6 and APP9 drawing number A-9000-001).

6.57 All road and tramway crossing construction would be by trenchless technology; however Blackpool Transport[16] raised concerns about settlement and potential damage to the tramway (REP159). At the IS hearing on 9 October 2012 it was confirmed that Blackpool Borough Council as the tramway undertaker required protective provisions in the Order (REP261). These have been included in the Order (Schedule 8, Part 3) and we are satisfied that the consequences of any impacts from pipeline construction on the tramway are adequately provided for.

6.58 Construction of the marine outfall would require approval by the Marine Management Organisation (MMO) within the terms of the proposed deemed marine licence at Schedule 7 of the Order. The MMO have confirmed that the deemed version in the Order has been agreed (REP280, paragraph 3.2.4). We are satisfied therefore that the brine discharge pipeline proposal is adequate.

Wash Water Pipeline

6.59 The wash water pipeline would be 1.8km long, 900mm external diameter between the seawater pump station at the Fleetwood Fish Dock and the booster pump station (APP27, paragraph 1.2.1). It would require a crossing of the Wyre Estuary, one minor road (APP27, paragraph 1.6 and APP9, drawing number A-9000-001). There are no specific issues regarding the pipeline. The river crossing is discussed below.

[16] Blackpool Transport Services Ltd, is the operator of the Tramway as the Councils agents. Blackpool Council is the statutory undertaker.

Wyre Estuary Crossings

6.60 Both the brine pipeline and the wash water pipelines would cross beneath the Wyre Estuary at the north river crossing, along with two 11kv electrical cables. There would also be a southern river crossing to enable two 132kv electrical cables to cross from Stanah Switchyard to the GCC.

6.61 The construction methodology for both river crossings would be by using trenchless technology to ensure an environmentally acceptable means of crossing the Estuary (APP17, page 39). We were concerned that the draft Order (APP22, Schedule 1, Work No 12, 13 and 14) could have been interpreted to allow that the crossings could be undertaken either by trenchless or open trench methods. We also noted some inconsistencies regarding the proposed location of the drilling rig at the southern river crossing in the application drawings. The Applicant confirmed that the southern drilling rig would be on the west bank (REP203, response to Q4/1). The Order has been modified to ensure that only trenchless technology can be used (REP281, Schedule 1 Work No 12, 13 and14).

6.62 In conclusion, we are satisfied about the pipeline routes, and the methodology for pipeline construction provided for in the Order, subject to the discussion on noise from the drilling compounds discussed below (paragraphs 6.67 to 6.81). We see no reason therefore why the Order should not be made on account of these matters.

BRINE DISCHARGES TO THE IRISH SEA

6.63 Several local residents, fishermen and their representatives submitted representations regarding the proposals for discharging brine extracted from the caverns to the Irish Sea as part of the solution mining process. The application proposes a pipeline from Rossall extending to a point 2.3km westwards where brine would be discharged at the seabed through two diffusers. Concern was expressed about the potential for concentrations of brine to adversely impact on water quality and in turn the health of the local fish stocks. These issues are explored in the ES (APP17, Chapter 8) which concludes that any impact would be very small. We asked a question at the outset of the examination in order to explore this issue further (PD2).

6.64 The EA granted a consent in connection with the previous planning application in 2007 to permit the discharge of brine of up to 80,000m^3 per day at this location in the Irish Sea, subject to conditions governing the quantity and content of the brine, including its salinity and presence of other elements. This was amended by the EA in 2011 to update the effective start date, and is therefore valid for this application for development consent (see paragraph 1.10 of this report). Representations were made

requesting that the Agency should reconsider the discharge consent, but the response to our question is that the Agency does not consider there have been any changes since the intention to grant the discharge consent to warrant a reassessment (REP177).

6.65 We understand and appreciate these concerns about the potential for threatening the integrity of fish stocks in the Irish Sea, and the small inshore shellfish industry, but we are satisfied there is no evidence to suggest that the impact of brine discharge will be perceptible beyond 50m of the end of the brine discharge pipeline.

6.66 Given this and the clear advice in NPS EN-1 at paragraph 4.10.13, we are satisfied that the measures necessary to ensure that the arrangements for brine discharge to the Irish Sea including the requirements for monitoring, are matters for the EA to consider and regulate through the discharge consent.

NOISE

6.67 The analysis in the Applicant's ES of noise impacts arising from the UGS facility indicates that there would be some limited impact during construction and little effect during operation (APP17, Chapter 12).

6.68 The ES proposed fixed noise levels for construction activities. However, the draft Order submitted with the application (APP22) does not include these noise levels as the Applicant had subsequently agreed with WBC that:

> '*the approach adopted would be to consider construction activities individually rather than adopting fixed noise limits. This would allow the specific nature of the activities and the environment of the site to be taken into account. The criteria would be based on BS5228, Code of Practice for Noise and Vibration Control on Construction and Open Sites (2008) and include the use of section 61 consents'*

The Order provides for a written scheme for noise management to be approved by WBC for each stage of the works (Requirement 26).

6.69 SoCG7 covering noise and vibration and agreed between the Applicant and WBC states that the:

- methodology of the approach to noise and vibration assessment is considered appropriate and agreed
- baseline information is considered appropriate and agreed
- mitigation and enhancement measures are agreed (subject to the construction methods and mitigation measures taking into account particularly sensitive receptors including the new residential development at Harbour Village, Rossall Hospital and caravan parks along the Wyre Estuary)

- assessment findings are agreed (potential effects as a result of the project without mitigation and enhancement measures) and residual effects (with proposed mitigation measures).

6.70 Few representations were made about noise concerns, and indeed WBC confirmed in its LIR that it was satisfied to leave the question of noise control to subsequent stages in the design and construction process (REP194, paragraph 13.12). However, WBC's position became less certain when considering these requirements at the IS hearing on 18 September 2012.

6.71 We took the view that some matters needed clarification, particularly concerning the impact of construction noise on the residential development currently underway adjacent to the Fish Dock in Fleetwood (Harbour View) and the residential caravan parks adjacent to the Stanah Switchyard. Both of these locations would be affected by the construction of the pipelines and cables under the River Wyre.

6.72 In the first case, this would be to construct pipelines to carry seawater from the pump station in the Fleetwood Fish Dock under the Estuary to the booster pump station adjacent to Hackensall STW and brine in the return direction, together with two 11KV electrical cables. In the second, it would be to construct two pipelines under the Estuary to carry 132kv electrical cables from the Stanah Switchyard to the GCC. As detailed in the Applicant's ES (APP17, Chapter 12), both Estuary crossings would require drilling compounds to be set up on the river banks, and would involve 24 hour working over extended periods (up to 12 weeks). These drilling compounds would be immediately adjacent to properties in Harbour Village and close to residential caravans.

6.73 We therefore asked a series of questions to understand the calculation of the construction noise effects at these two locations and the intended method of constructing the river crossings. This was to be sure about any night time construction intentions, the seasonal programme for the construction and the impacts on the residents of Harbour Village and the caravan parks near Stanah (Kneps Farm Holiday Park and Flints Caravan Park).

6.74 Despite the Applicant's answers to our written questions and our questions raised at the IS hearings, we remain dissatisfied that the impacts of noise of 24 hour construction on residents (Harbour Village immediately adjacent to the northern River Wyre crossing and in the residential caravans adjacent to the southern River Wyre crossing) have been adequately addressed.

6.75 The draft Order had originally allowed for the operation of the drilling compounds at the north and south river crossings on a 24 hour basis (APP22). Subsequent to our questions, the Applicant revised the proposed working methodology to day-time working only in Order versions 2 to 4 (REP277, REP278 and REP279).

6.76 However, in the 5th version of the Order (REP280) the Applicant introduced noise limits under Requirement 26(6) and 26(7) for the nearest occupied residential property or caravans at Harbour Village, Kneps Farm Holiday Park and Flints Caravan Park:

- 60dB LAeq,1h; between 7am and 7pm
- 55dB LAeq,1h; between 7pm and 11pm
- 42dB LAeq,1h; between 11pm and 7am.

We questioned the reason for the apparent inconsistency as the requirement would now specifically provide for noise limits during night time drilling (PD26). We were advised that the revision is to provide for the reaming process, a particular engineering activity which enables the tubing to be pulled back through the pilot hole. The Applicant expects the reaming to be a 24 hour process for the river crossings, which will last for one night for each conduit, and therefore there would be a total of six nights working required (REP281, page 9 in covering note).

6.77 The Applicant also proposed new sub-clauses to Requirements 26(8) and 26(9), about which, in view of the late addition, we have not had the opportunity to question either WBC or the Applicant:

- Requirement 26(8a) allowing for the relaxation of the noise level at night, between 7pm and 7am, to 55dB LAeq,1h with the approval of WBC

We consider that this effectively negates the 42dB LAeq,1h noise level established in sub-clause 26(6c) and 26 (7c)

- Requirement 26(8b) allowing for the relaxation of the noise limits to 70dB LAeq,1hr for a short duration, for construction or demolition activities, with the approval of WBC

No definitions for "short duration" or working hour limitations are given, so again we consider that this negates the noise levels given in Requirement 26(6c) and 26(7c)

- Requirement 26(9): in respect of requests to WBC for permission to extend the night time working noise level to 55dB LAeq,1h, it would not be reasonable for WBC to withhold its agreement if the Applicant has shown that the works would facilitate the effective and expeditious carrying out of the specified activities and that WBC may have regard to the number of times that the Applicant has requested the agreement and the duration of the works.

We do not consider that the frequency of asking for such a dispensation should have any bearing on whether it is granted.

6.78 Our conclusion on this matter is that these additional sub-clauses are unnecessary, given that the night time working is meant to be a one night only activity for the reaming of each river crossing (i.e.

a total of six nights) and the Applicant will have the ability to seek variations from WBC as the relevant planning authority as required in any event.

6.79 The Order also includes restrictions on scheduling with regards to the crossings under the Wyre Estuary, so that site compound creation may only take place from April to August and the excavation and drilling may only be undertaken from May to July (Requirement 37). These restrictions have been included for the protection of birds as described in paragraphs 6.106 et seq below; we consider that these are acceptable.

6.80 Rossall Hospital would be close to the construction activity for the brine pipeline and within 100m of the sea wall crossing. We are concerned about the impact of vibration from piling on the operational and care activities in the hospital. In answer to our question, the Applicant confirmed that Best Practicable Means (BPM) would be adopted and use of piling rigs that produce lower levels will be investigated (REP203, response to Q4/4). There would be no significant effect on operational and care activities in the hospital as a consequence. We consider that use of BPM in conjunction with the noise management approval process provided for in Requirement 26 is acceptable.

6.81 In conclusion, we consider that the mitigation of noise impacts is now adequately provided for in the Order, except that sub-clauses Requirement 26(8) and Requirement 26(9) should be deleted.

HABITATS REGULATION ASSESSMENT AND ECOLOGY

6.82 The matters addressed in this section are:

- the potential implications for sites designated under European directives
- the potential implications for Sites of Special Scientific Interest (SSSI)
- European Protected Species (EPS) licensing issues, and
- nationally protected species licensing issues.

Potential Implications for European Sites

6.83 Turning first to the European context, the UK is bound by the terms of the Habitats Directive, Birds Directive and the Ramsar Convention. The aim of the Habitats Directive is to conserve natural habitats and wild species across Europe by establishing a network known as Natura 2000 sites. These sites comprise Special Areas of Conservation (SACs), candidate SACs, (cSACs) and Special Protection Areas (SPAs). In addition, Government policy applies the same protection to internationally important wetlands (Ramsar sites) and to possible or proposed or SPAs and Ramsar sites for the purpose of considering development proposals which may affect them.

6.84 NPS EN-1 gives guidance on the matters concerning the Habitats Regulations[17] which should be considered when examining an application. Regulation 61 states that if a proposed development is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans and projects), and is not directly connected with or necessary to the management of the site, then the competent authority (in this case the Secretary of State) must make an appropriate assessment of the implications for that site in view of its conservation objectives. The purpose of this section therefore is to provide advice to the Secretary of State about the information the Applicant has provided concerning Habitats Regulation Assessment (HRA) matters.

6.85 The Planning Inspectorate's Advice Note 10[18] summarises a four stage process of (HRA) which should be followed to ensure that sufficient information is available to support the competent authority in satisfying the Habitats Regulations. The first stage of the HRA process is screening to determine if significant effects, alone or in combination with other projects, are likely to occur. If no likely significant effects are identified, and the competent authority agrees that this is the case, then no further action is required and consent may be granted. However, the competent authority may decide appropriate assessment is required (stage 2). If this results in a negative assessment, consent will only be granted if there are no alternative solutions (stage 3) and there are Imperative Reasons of Overriding Public Interest (IROPI) for the development and compensatory measures have been secured (stage 4).

6.86 Amending Regulations[19] came into force on 16 August 2012 which place new duties and obligations on the Secretary of State and the relevant conservation bodies to enhance the protection of habitats. We sought confirmation from the relevant IPs[20] whether in their view, and if so how, these amendments to the Habitats Regulations affect the representations that they had previously made on this application (PD20).

6.87 The Applicant confirmed that the amendments did not have any effect on the documents submitted in support of the Application, or any representations made (REP313). NE (REP312) and the MMO (REP310) confirmed that they did not have any additional representations to make, whilst Lancashire Wildlife Trust deferred to the advice of NE (REP311).

[17] Conservation of Habitats and Species Regulations 2010 (S1 2010/490)
[18] Advice Note Ten: Habitats Regulation Assessment relevant to nationally significant infrastructure projects October 2012
[19] Conservation of Habitats and Species (Amendment) Regulations 2012 SI 2012 (No. 1927)
[20] the Applicant, NE, MMO, EA, Lancashire Wildlife Trust, WBC, and LCC

Screening undertaken by the Applicant

6.88 The Applicant used a 10km radius to identify the European sites to be screened into the HRA assessment, which are:

- Liverpool Bay SPA; 1.1km from the nearest feature of the project, the diffuser outlet of the brine pipeline
- Morecambe Bay SAC; 2.7km from the diffuser outlet of the brine pipeline
- Shell Flat and Lune Deep cSAC; 2.5km from the diffuser outlet of the brine pipeline
- Morecambe Bay SPA; the pipes and cables would run under the Wyre Estuary, part of this SPA
- Morecambe Bay Ramsar; the pipes and cables would run under the Wyre Estuary, part of this Ramsar site.

6.89 The location of these European sites and the detailed analysis of the likely impact of the project on them are set out in two reports submitted as part of the application:

- Morecambe Bay SAC, Liverpool Bay SPA, Shell Flat and Lune Deep cSAC sites (APP12)
- Morecambe Bay SPA and Ramsar sites (APP13).

6.90 These reports conclude that the project, either alone or in combination with other plans or projects, would not result in likely significant effects on any of the European sites and therefore that an appropriate assessment is not required.

6.91 Subject to the finalisation of the LEMSP (see paragraphs 6.108 and 6.109 below) and the proposed Order requirements to ensure delivery of agreed avoidance and mitigation measures, NE has confirmed that they agree with the Applicant's conclusion (SoCG2, paragraphs 3.1.21 and 4.1.37).

The Applicant's assessment of likely significant effects on the European sites

Liverpool Bay SPA

6.92 Liverpool Bay SPA is an entirely marine site and has no component SSSIs. The site is designated for over wintering populations of red-throated diver and common scoter (APP17, Appendix 9.17).

6.93 The screening assessment has assumed that the installation of the brine outfall pipeline would be timed to be undertaken between the months of April to July during the period when red-throated divers and common scoters are highly unlikely to be present (APP12, paragraph 7.2.3).

6.94 However, NE considers that there is potential for these species to be disturbed by construction boat traffic arising from the installation of the brine pipeline. This could be adequately avoided

through measures to control vessel movements (SoCG2, paragraph 3.1.13). Schedule 7 of the draft DCO is the deemed marine licence (REP281) and contains a proposed condition 19 for the provision of an agreed vessel movement plan which would ensure this.

6.95 NE confirms that it agrees with the conclusion reached by the Applicant, that there are no significant effects on the features of Liverpool Bay SPA either alone or in combination with other plans or projects (SoCG2, paragraph 3.1.21). This is subject to the mitigation and monitoring outlined in Chapter 8 of APP12 and the water quality monitoring proposals that would be undertaken in accordance with the provisions of the brine discharge consent issued by the EA in 2007 (APP18, Appendix 2.1).

Morecambe Bay SAC

6.96 Morecambe Bay SAC forms the largest single area of continuous intertidal mudflats and sandflats in the UK. It is underpinned by five component SSSIs including the Wyre Estuary and Lune Estuary.

6.97 The Applicant has identified that the release of sediment during the installation of the pipeline would not be expected to adversely affect the habitats of Morecambe Bay SAC (APP12, paragraph 7.1.4). The release of brine solution into the Irish Sea is likely to have a localised effect on marine habitats and associated fauna, and lethal concentrations of saline for plankton (>40psu[21]) are predicted to occur only within 50m of the discharge point. The Applicant anticipates therefore that just a very small proportion of plankton moving between the Liverpool and Morecambe Bays would pass through lethal concentrations of brine (APP12, paragraph 7.1.12).

6.98 The Applicant concludes that the proposed development would not have a significant effect on Morecambe Bay SAC either alone or in combination with other plans or projects (APP12, paragraph 7.1.13). NE agrees with this conclusion subject to the same provisions as set out in paragraph 6.95 above (SoCG2, paragraph 3.1.21).

Shell Flat and Lune Deep cSAC

6.99 Shell Flat is a large sandbank located at the mouth of Morecambe Bay, and Lune Deep is a reef habitat located within a deep water channel. The Applicant has identified that the release of brine solution into the Irish Sea from the discharge point is likely to have a localised effect on marine habitats and associated fauna. As Shell Flat and Lune Deep cSAC is located approximately 2.5km from the brine outfall discharge point and the brine plume modelling has

[21] Practical salinity units. The ES states that a salinity level greater than 40psu is considered lethal to most marine organisms (APP17, Chapter 9, paragraph 9.3.33.

identified limited current flow to the west, the Applicant has determined that it would be extremely unlikely that the brine plume would reach Shell Flat and Lune Deep cSAC (APP12, paragraph 7.3.6). In addition, the modelling predicts that the dilution effects would reduce the salinity to 40psu, within 50m of the proposed brine diffusion outlet (APP12, paragraph 7.3.8 and APP17, paragraph 9.3.34).

6.100 The Applicant concludes that the proposed development would not have a significant effect on Shell Flat and Lune Deep cSAC either alone or in combination with other plans or projects (APP12, paragraph 7.3.11). NE agrees with this conclusion subject to the same provisions as set out in paragraph 6.95 above (SoCG2, paragraph 3.1.21).

Morecambe Bay SPA

6.101 Morecambe Bay is a wetland of international importance and qualifies as a SPA by supporting populations of:

- little tern and sandwich tern, herring gull and lesser black-backed gull during the breeding season
- ringed plover and sanderling on passage
- bar-tailed godwit, golden plover, curlew, dunlin, grey plover, knot, oystercatcher, pink-footed goose, pintail, redshank, shelduck, and turnstone over winter
- seabirds and waterfowl, including black-tailed godwit and teal.

It is underpinned by six SSSIs including the Wyre Estuary and Lune Estuary.

6.102 The location of the project in relation to Morecambe Bay SPA is shown on figures 1a and 1b in APP13. Whilst all of the above ground infrastructure would be located outside of the SPA, several of the UGS caverns would be created under the salt marsh habitats. The fields within agricultural use to the east of the salt marsh are also used by foraging and roosting bird species associated with the SPA, and these areas are referred to as functionally-linked land. In addition, pipe crossings would be installed under the Wyre Estuary, which forms part of Morecambe Bay SPA, in two separate locations as shown on Sheet 2 of figure 9.1, APP20.

6.103 NE identified that black-tailed godwit and teal had been missed from the Applicant's screening assessment. In response, the Applicant provided additional mapped information on the location of roosting and feeding areas used by these qualifying bird species and NE has confirmed that it is satisfied with the information provided (SoCG2, paragraph 4.1.9). As the species black-tailed godwit and teal are also designated features of Wyre Estuary SSSI, further detail is provided in paragraph 6.118 below when considering the potential implications of the project on this site.

6.104 NE considered that the proposed pipelines and cabling routes lying underneath the Wyre Estuary have the potential to affect Morecambe Bay SPA (and Ramsar) sites. However, the proposed methods of working, including directional drilling, and location of drilling sites and construction activities would adequately avoid damage to designated habitats subject to these being secured in the Order requirements (SoCG2, paragraph 4.1.23).

6.105 The Applicant has identified that there would be no loss of designated habitats within Morecambe Bay SPA, nor significant effects on feeding pink-footed geese as a result of the permanent and temporary loss of functionally-linked farmland. This is because of the amount of alternative suitable habitat available (SoCG2, Appendix A, paragraph 11.1.6).

6.106 However, disturbance/displacement of a significant number of pink-footed geese using the functionally-linked land is anticipated due to the following construction works:

- construction of wellheads 2, 3, 4 and 6
- drilling caverns from the wellheads
- construction of the booster pump station, control centre and de-brining facility and associated infrastructure
- construction of the GCC and electrical sub-station and associated infrastructure (APP13, paragraph 9.3.2).

6.107 This disturbance/displacement is anticipated to last for the duration of the cavern creation (up to 8 years) and to extend to a distance of 500m from the works activities (APP13, paragraph 9.1.27). Up to 4,000 geese use the fields adjacent to and surrounding Morecambe Bay SPA between mid-September to late March/early April (APP13, paragraph 7.3.74). This represents a significant proportion of the site's population of pink-footed geese and therefore without mitigation there is the potential for a significant effect (APP13, paragraph 9.1.29 and SoCG2, paragraph 4.1.19).

6.108 The mitigation measures proposed by the Applicant are described within the draft LEMSP and have been revised during the course of the examination (see paragraph 6.28 above). The LEMSP would ensure that sufficient replacement foraging areas are in place in advance of construction and operational works likely to cause disturbance/displacement to pink-footed geese and to provide compensation to tenant farmers, as necessary, for the loss of revenue associated with the loss of crops (SoCG2, Appendix A, paragraph 11.1.10).

6.109 NE agrees with the conclusion reached by the Applicant that there are no significant effects on the features of Morecambe Bay SPA either alone or in combination with other plans or projects, subject to the finalisation of the LEMSP and the proposed Order requirements (SoCG2, paragraph 4.1.37).

Morecambe Bay Ramsar site

6.110 Morecambe Bay is also designated as a Ramsar site which covers the same area as Morecambe Bay SPA. Concern raised by NE about the proposed pipelines and cabling routes lying underneath the Wyre Estuary potentially affecting the Ramsar site is discussed above in relation to Morecambe Bay SPA (paragraph 6.104).

6.111 The Applicant's assessment of the potential significant effects on Morecambe Bay Ramsar site cover:

- temporary and permanent loss of foraging/roosting habitat within the functionally-linked land for over wintering pink-footed geese during construction and operation of the proposed development
- mitigation measures proposed in the form of the LEMSP.

These are considered above (paragraphs 6.106 to 6.109).

6.112 NE has confirmed that it agrees with the conclusion reached by the Applicant, that there are no significant effects on the features of Morecambe Bay Ramsar site either alone or in combination with other plans or projects, subject to the finalisation of the LEMSP and the proposed Order requirements, i.e. as in paragraph 6.109 above.

The Panel's Assessment

6.113 We have considered carefully the information relating to the HRA provided by the Applicant and IPs. Taking account of the evidence in the ES, the Applicant's reports APP12 and APP13 and the agreed SoCGs between the Applicant and the nature conservation bodies, particularly NE, we conclude that no likely significant effects will result from the project on the Morecambe Bay SAC, Liverpool Bay SPA, Shell Flat and Lune Deep cSAC, or Morecambe Bay SPA and Ramsar sites. Subject to the Secretary of State as the competent authority agreeing with this conclusion, there is therefore no need for an appropriate assessment.

6.114 In reaching this recommendation, we have taken into consideration the additional duties placed on the Secretary of State under Regulation 9 and 9A of the Habitats Regulations.

Potential Implications for SSSI

6.115 Section 28I of the Wildlife and Countryside Act 1981 (WCA)[22] imposes procedural obligations requiring the relevant nature conservation body, in this case NE, to be notified before a decision is made if operations authorised by the grant of a consent are likely to damage the special interest features of a SSSI.

[22] as amended by the Countryside and Rights of Way Act 2000 in relation to SSSI

6.116 The designated sites potentially affected by the proposed development are shown in the ES (APP20, figures 9.1 and 9.2):

- Wyre Estuary SSSI is an integral part of the Morecambe Bay complex of estuaries and shore which underpins the Morecambe Bay SAC, SPA and Ramsar sites; it is noted for wintering and passage black-tailed godwit, wintering turnstone and for wintering teal in times of hard weather
- Lune Estuary SSSI is notified for its extensive sand/silt flats together with saltmarsh in the form of a number of discontinuous saltings fringing the Estuary and wintering species assemblage; the site forms part of the Morecambe Bay intertidal system and underpins the Morecambe Bay SAC, SPA and Ramsar sites
- Winmarleigh Moss SSSI is the largest area of lowland raised mire remaining in Lancashire; the main vegetation types are heather and purple moor-grass dominated mire over deep peat, birch scrub and birch woodland, and the site also supports a number of rare insect species.

Wyre Estuary SSSI

6.117 In response to the Panel's initial questions (PD2), NE confirmed that for the purposes of the WCA, the project is not likely to damage the interest features of the Wyre Estuary SSSI. NE is satisfied that there are no additional SSSI features which are separate from and different in nature to the SPA features that require additional mitigation measures (REP202).

6.118 NE identified that overwintering black-tailed godwit and teal may be potentially affected by disturbance caused during drilling of the caverns and construction of the booster pump station. Although the drilling would take place within 200m of areas known to be of value to roosting and feeding birds, mitigation is proposed at the wellhead compounds to screen all vehicle and site personnel movements. The assessment also concludes that these species would not be disturbed by the physical presence of plant and site personnel (SoCG2, Appendix A).

6.119 We are of the view that the mitigation measures agreed in the context of considering the Morecambe Bay SPA and Ramsar sites at paragraphs 6.109 and 6.112 would avoid the risk of disturbance to the designated features of Wyre Estuary SSSI. We conclude therefore that there would not be damage to the protected features of the Wyre Estuary SSSI and thus notification under the WCA is not required for this designated site.

Lune Estuary and Winmarleigh Moss SSSIs

6.120 No potential impacts on the Lune Estuary SSSI and the Winmarleigh Moss SSSI were identified in the ES as these sites are located over 750m from the application site boundary (APP17,

Table 9-8). NE confirmed that the Lune Estuary would not be affected by potential impacts arising within and adjacent to the Wyre Estuary as construction of the sea outfall and discharge of hyper-saline solution into Liverpool Bay is too distant to affect the Lune Estuary SSSI (REP202).

6.121 In relation to the Winmarleigh Moss SSSI, NE confirmed that there is no obvious mechanism whereby the project might cause any drainage effects that would damage the integrity of the site. NE considers that for the purposes of the WCA, the project would not damage the interest features of the Winmarleigh Moss SSSI (REP202).

6.122 We conclude therefore that there would not be damage to the protected features of the Lune Estuary and Winmarleigh Moss SSSIs and thus notifications under the WCA are not required for these designated sites.

Protected Species Licensing Considerations

European Protected Species (EPS)

6.123 The Applicant and the IPs, including the statutory nature conservation bodies, have not identified a need for an EPS with respect to marine mammals. EPS licences are required with respect to bats (for works affecting known roosts) and great crested newts (for works affecting their terrestrial habitat). Draft licence applications were submitted to NE but not granted by the close of the examination.

6.124 However, NE issued letters of comfort on 18 October 2012 in relation to both draft licence applications confirming that the derogation tests of no satisfactory alternative and IROPI would be met in both cases, subject to granting the Order (REP281, Appendices 18 and 19).

6.125 Given the available evidence, the Panel as the ExA therefore recommends that the Secretary of State may conclude that there is no reason why the Order should not be made in relation to EPS. In reaching this recommendation, we have taken into consideration the duties placed on the Secretary of State under Regulations 9 and 53 of the Habitats Regulations.

Nationally Protected Species

6.126 Cetaceans and barn owl are nationally and some internationally protected species which have been identified as key ecological receptors in the ES (APP17, Chapter 9). Disturbance from noise and indirect effects on food resources are potentially significant effects on cetaceans. The predicted loss of a barn owl nesting site has been identified as a potentially significant effect, and additionally foraging habitat may be lost during the construction

and the construction and operation combined phases of the project.

6.127 The ES determines that the effects of noise and the effects on cetacean food resources resulting from the project would not be significant. The loss of a known barn owl roosting site would be, at the worst-case, significant at the district/borough level. However, loss of foraging habitat is not significant. No specific concerns in relation to these receptors have been expressed by the relevant consultees, in particular NE or the MMO.

6.128 An outlying badger sett has been recorded during the ecological surveys. The ES states that measures will be taken to avoid disturbance to this sett. However, temporary disturbance to badgers occupying the sett may occur and would require mitigation (under licence from NE). Water vole are reported as being absent from the study area, however it is recognised in the ES that should this species re-colonise habitats within the vicinity of the development that mitigation will be required (APP17, Chapter 9). No specific concerns in relation to these receptors have been expressed by the relevant consultees, in particular NE.

6.129 Given the available evidence, the Panel as the ExA therefore recommends that the Secretary of State may conclude that there is no reason why the Order should not be made in relation to nationally protected species.

DISPOSAL OF INSOLUBLE WASTES IN BW123

6.130 In the HRA for Morecambe Bay SPA and Ramsar, the Applicant proposes the use of an existing underground cavern for the disposal of insolubles from the de-brining facility (APP13, paragraph 3.5.2). The Applicant's Construction Report states that the intended brinewell to receive the insolubles is BW123 (APP33, paragraph 3.20).

6.131 However, BW123 is located immediately adjacent to the Wyre Way, and just outside the boundary of the Morecambe Bay SPA and Ramsar site, and the Wyre Estuary SSSI. Any spillages or brine overflows could have significant environmental effects. No details of the proposals were included in the application and no information was given concerning any application for a Waste Recovery Permit.

6.132 We raised the matter as an issue in our first round of written questions. The Applicant confirmed that the anticipated volume of waste to be disposed is 267,700m^3, whereas BW123 (which is currently full of brine) has a volume of 278,500m^3, i.e. just adequate for the anticipated waste volume (REP203, response to Q6/1). Slurry will be pumped from the debrining pond at the booster pump station to BW123 and the displaced brine from

BW123 will be returned for discharge to the sea outfall (REP203, response to Q6/1ii and Q6/1iv).

6.133 No details of the equipment needed are given in the application; however the Applicant confirmed at the IS hearing on 18 September 2012 that the authority to construct the slurry and brine return pipelines was contained in the pressure pipelines referred to in Work 21 of Schedule 1 of the Order. There would be isolation and bypass valves and instrumentation at the wellhead, but no pumps (REP207, paragraph 5.146); therefore, visual impact would be minimal.

6.134 The Applicant has written to the EA setting out the proposed permitting approach (REP203, response to Q6/2 and REP203, Appendix 36). The EA's response confirms that they expect to receive a Waste Recovery Plan submitted with the permit application which will cover BW123 (REP203, Appendix 37).

6.135 We have considered the Applicant's responses and the EA letter and are satisfied that the issues with regard to disposal of insoluble wastes in BW123 have been suitably addressed.

ACCESS

6.136 Traffic volumes during construction and particularly once operational would be very low, despite the representations suggesting that construction traffic would create a substantial adverse impact (REP203, answers to Q7/2, Q7/3 and Q7/4).

6.137 Access is required to a number of temporary construction compounds on both sides of the Estuary, for example to the sea wall construction site at Rossall, the seawater pump station in the Fish Dock, the GCC and to enable the construction of pipelines under roads. These are straightforward, and no representations have been received about them.

6.138 Gravel tracks are proposed between the wellheads and the GCC in order to provide for vehicular access needed to service the wellheads. There are no traffic issues arising from these, rather the impact is on the open countryside.

6.139 The main access proposal is construction of a permanent new access road from the A588 south of Cemetery Lane crossing Back Lane to the proposed service building at Higher Lickow Farm, and thence to the GCC. This would enable construction traffic to access the main area for cavern construction directly. It would replace an existing substandard and dangerous junction at Cemetery Lane and the A588. The intention is that this new access road would be maintained permanently during operation.

6.140 It is apparent that part of the justification for this new access road arises from consideration of previous proposals when LCC expressed concern about access arrangements (APP20, Appendix

16). Whilst a safe and secure means of accessing the main site during construction is accepted, we questioned whether such a new road needs to be kept permanently between the A588 Hall Gate Lane and Back Lane. It would be a new and raw intrusion in the existing rural landscape, and would have a direct impact in terms of land take on properties to the south of Cemetery Lane, particularly Fernacre and Park Cottage. It would also be provided with low level lighting to cater for emergency operation and would be fenced along its length to prevent livestock entry (APP29).

6.141 Although a private road, it does not appear to be the intention that it would be fenced at either end, and indeed the Order provides for LCC as highway authority to adopt this new road in due course if it so chooses. The section of the road from Back Lane to the GCC essentially replaces Monks Lane as a private secure road to service the new development exclusively.

6.142 However, the alignment of the proposed new access road is also that of the main gas interconnector pipeline from the GCC to the NTS at Nateby, so land rights are required in any event and arrangements will be necessary to access the pipelines for maintenance if necessary. In these circumstances, we conclude that the advantage of requiring the access road between Back Lane and the A588 to be removed once construction is complete would be limited. But this is provided it is adopted as public highway as provided for in the Order so that the existing difficult 4 way junction at Cemetery Lane/A558 can be properly improved. This is therefore the assumption upon which we have reached our conclusion on this matter.

6.143 Turning to the adequacy of the designated routes for HGV traffic, we are satisfied that the s106 agreement provides for this to be monitored, and for the Applicant to provide an HGV routeing plan (REP281, Appendix 24).

6.144 In reaching our conclusions on access arrangements and traffic impacts, we have had regard to the SoCGs agreed with LCC as the local highway authority and the Highways Agency (SoCGs 6 and 24). We see no access and traffic grounds for the Order not to be confirmed.

RIGHTS OF WAY

6.145 There are no proposals to permanently close any footpaths or bridleways, but the Applicant proposes the following temporary closures or diversion of public footpaths as shown on figure 1.35, APP19:

- Footpath 12, on the sea wall at Rossall to be closed for 12 weeks for installation of the of the brine discharge pipeline

- Footpath 42 (Wyre Way) to be partly diverted (near the booster pump station) for three years during the construction period
- Footpath 61 (near Cote Walls Farm) to be closed for three years during the construction period and walkers diverted to FP42
- six week closure of footpath (unnumbered) along the western boundary of Fleetwood WwTW to allow for construction of brine discharge pipeline; walkers to be diverted to Jameson Road.

6.146 Other temporary short term closures are required for a number of footpaths and bridleways to allow for construction of the gas interconnector pipeline, the brine discharge pipeline and the electrical control cables. Footpaths and bridleways would be either diverted for a temporary period during construction or temporary management measures would be put in place to allow their continued use (APP29, paragraph 2.43).

6.147 We have reviewed the proposals for temporary diversions and agree that they are acceptable. Not withstanding this, the impact of the development on the long term use of the Wyre Way (Footpath 42) is a concern to us, as it passes close to a number of the wellheads. This is discussed in more detail in the section of Chapter 5 of this report which assesses risks to residential properties and amenities.

BUILT HERITAGE AND ARCHAEOLOGY

6.148 In assessing the development, the regulations[23] oblige us to consider the setting of heritage assets such as listed buildings and scheduled ancient monuments, and the desirability of preserving or enhancing the character or appearance of conservation areas. Paragraph 5.8.18 of NPS EN-1 provides that where development does not preserve the setting, the harm should be weighed against the benefits.

6.149 The ES (APP17, Chapter 7) contains a detailed assessment of archaeology and built heritage. It concludes that the project would not affect any scheduled ancient monuments or have any direct physical effect on listed buildings. A non-designated built heritage asset, Higher Lickow Farm, is currently derelict and would experience a positive effect as a result of the proposed refurbishment, provided it is carried out in a manner that is sympathetic to the character of the post-mediaeval farmstead.

6.150 The main potential effects would be on the setting of a small number of listed and non-listed buildings, direct physical effects on non-designated archaeological remains and marine sites. The built heritage assets which are located within the vicinity of the

[23] Infrastructure Planning (Decisions) Regulations 2010

proposed permanent above ground structures have the potential to experience permanent impact on their setting, although these will be minor.

6.151 The proposed development would not directly affect any heritage assets, as there are none on the site itself. The nearest heritage asset is Hackensall Hall, a Grade 2 listed building which lies immediately north of the application boundary within the Knott End golf course. No representations were received about heritage matters and SoCGs were agreed between the Applicant and English Heritage (EH) (SoCG31) and the LCC and WBC (SoCG30 and SoCG32) that impacts on heritage assets would not be significant.

6.152 We conclude therefore that there are no built heritage or archaeology issues in connection with this application which would argue against the Order being confirmed.

SOCIO-ECONOMIC EFFECTS

6.153 The Applicant has prepared a socio-economic impact assessment as required by NPS EN-1 section 5.12 (APP17, section 11.7). There were few comments from IPs about socio-economic matters. Neither LCC nor WBC raised any issues on socio-economic effects in their LIRs.

6.154 The SoCGs agreed with LCC and WBC (SoCG39 and SoCG40) list the principal socio-economic benefits stated by the Applicant, namely:

- the project will generate 200 to 300 FTE jobs during construction and 35 to 40 FTE jobs once operational
- where possible, opportunities will be provided for apprenticeships, graduate placements and young people not in education or training
- a Corporate Social Responsibility Fund will be established to promote and fund activities that support the sustainability of the local community (particularly safety, security, heritage and education)
- the Applicant will contribute a sum of £50k during year 1 and amount not less than this for each year of the construction period
- the observation platform on the sea wall at Rossall will offer benefits for those using the coastal path at this location.

6.155 We note that the Corporate Responsibility Fund was included in the draft Heads of Terms for the s106 agreement (APP31), but was excluded from the final version (REP281, Appendix 24) by mutual agreement between the Applicant and WBC.

6.156 We have assessed the proposals for the observation platform on the sea wall, and remain unconvinced of its benefits. However, we appreciate that the local authorities consider it as a benefit and

notwithstanding our views therefore conclude the proposal is acceptable.

6.157 Turning to the possible socio-economic disadvantages, the areas of greatest concern for a number of IPs were the impact of the development on house prices and tourism. However, paragraph 5.12 of EN-1 advises that limited weight should be given to assertions of socio-economic impacts that are not supported by evidence. In this regard assertions that house prices would be damaged, and tourism and local business would suffer have not been supported with factual evidence. Accordingly we take the view that these concerns should not attract significant weight.

6.158 We have reviewed the socio-economic impact assessment and conclude that there are no grounds to refuse the Order on the socio-economic impact of the proposals.

7 THE PANEL'S CONCLUSION ON THE CASE FOR DEVELOPMENT

7.1 As noted above at paragraph 4.4 the relevant NPSs were formally designated in July 2011. They provide the primary basis for decisions about NSIPs falling within their scope. Our conclusions on the case for development contained in the application before us are therefore underpinned by the advice therein.

7.2 NPS EN-1 requires the ExA to assess all applications for development consent:

> *'on the basis that the Government has demonstrated that there is a need for (the types of infrastructure covered by the NPSs) and that the scale and urgency of that need is as described for each of them…'* (paragraph 3.13), and that the ExA '*should give substantial weight to the contribution which projects would make towards satisfying this need when considering applications for development consent under the Planning Act 2008'* (paragraph 3.14).

7.3 NPS EN -4 reaffirms the principle that the ExA:

> '*should act on the basis that the need for infrastructure covered by this NPS has been demonstrated'* (paragraph 2.1.2).

7.4 Plainly, an understanding of the nature of the geology in which the proposed caverns for UGS would be constructed is essential. This is not only to ensure the safe operation of the facility, which we fully acknowledge is a matter for subsequent approval procedures within the COMAH Regulations, but to be satisfied that the development can indeed be constructed as proposed and that the scale of surface infrastructure is needed for the level of gas to be stored. As Chapter 5 notes, we considered the material presented in the application covering geology in some detail, and pursued this through a number of questions put to the Applicant. Many of the representations concerned the robustness of the geological case in one form or another and the PWG in particular concentrated much of their challenge to the application on understanding the Applicant's case in relation to geological evidence.

7.5 We accept that there is a considerable volume of historic material, including boreholes, seismic lines and a large number of data sources relating to the brinewells constructed as part of the salt extraction industry at Preesall. The Applicant's argument that this volume of material is far in excess of what has been required for other applications elsewhere in the country has to be set in the context of the three previous refusals for similar UGS proposals in Preesall, with geological matters at the heart of the grounds for refusal. Circumstances in other parts of the country may or may not be comparable to those found at Preesall; but our responsibility

is to ensure that the material presented for this application is sufficient to enable clear conclusions to be drawn and a recommendation made in the light of the complexity of the geology that we consider exists this in this case.

7.6 We commend the Applicant's approach in drawing together all the existing geological material in the GSR which presents it in a comprehensive and intelligible manner. Adopting a sieve map technique of all known hazards to define two polygons free from such constraints where the construction of UGS caverns could take place is a logical methodology. However, the problem we kept coming back to is that the areas which are defined as a result of avoiding all known constraints are themselves areas where there is little hard data to confirm the Applicant's contention that these are devoid of any major geological difficulties, particularly faulting, which would otherwise preclude cavern construction. To deal with this uncertainty the Applicant has taken the approach of developing an indicative design giving the number, location and shape of individual UGS caverns which could be authorised by the Order, and which could then be firmed up in detail as better information subsequently became available.

7.7 To our minds, the major difficulty with this approach arises if the subsequent detailed geological surveys show that (in contrast to the assumptions made in the 3D model) the two polygon area for cavern development are faulted, and the application of the separation distances in Requirement 6 preclude the construction of several caverns. In turn, this might lead to a situation where the volume of gas that could be physically stored is substantially less than that being applied for. In this eventuality the requirements for surface infrastructure, particularly the GCC, might be significantly less than contained in the application before us. Although we accept this is highly improbable, in extremis neither of the two polygons might be capable of cavern construction at all if faulting turned out to be a much more serious presence than that currently forecast.

7.8 We note that the project construction programme is over 8 years, the first three years for the supporting infrastructure and 8 years of cavern construction. Indeed, the brine pipeline, outfall and the two main pump stations would need to be constructed before starting the first cavern, because these are needed to dissolve the salt, form the caverns and dispose of the brine. The GCC and gas interconnector pipeline would be constructed by year 3, when the first caverns are put into operation, and while other caverns are still under construction. We are concerned that on this intended programme it is entirely feasible that all of the supporting infrastructure would be constructed before sufficient data was available to determine whether the design volumes for gas storage could be met in the polygons. Although there are provisions for decommissioning in such a situation of abandonment, the consequence would be unnecessary disruption for local people

during construction and whilst the abortive surface infrastructure was being removed.

7.9 The main disbenefit of the proposal in our view is the visual impact of the GCC, despite the best endeavours of the Applicant to site it in a location where it would be screened to a substantial extent, coupled with the proposals for landscaping and mitigation in the LEMSP. If the volume of gas which could eventually be stored underground is substantially less than currently predicted, it could well be that a smaller GCC structure would be needed, and hence the impact of the current proposals on the landscape could have been reduced if not avoided entirely.

7.10 We have no direct evidence about the relationship of the facilities required at the GCC and the volume of gas stored. But it is unlikely to be a linear relationship, and certain fixed elements of the plant will be needed irrespective of how much actual gas is being transmitted. However, the ES and the Design and Access Statement suggest that the size of the GCC in the present application is considerably smaller than that proposed for previous applications which had a much larger volume of gas intended to be stored (APP17, paragraph 2.1.6 and APP29, paragraphs 3.55 and 5.4). For this reason, we think it reasonable to conclude that if the maximum volume of gas which could be stored was much lower than that proposed in the application, then it would be possible to reduce the size and scale of the GCC accordingly.

7.11 Whilst recognising:

- that the application is for storage of gas up to a maximum working capacity of 600 Mcm
- the flexibility sought by the Applicant
- the nature of the interface between the development proposed to be approved by this Order and the subsequent detailed approvals within the COMAH Regulations

we conclude that reassurance is needed to put beyond reasonable doubt the suitability of the two polygons for construction of UGS caverns in the manner proposed to store at least a substantial proportion of the volume of gas for which the application is seeking approval. We consider that this is a step which should be taken immediately if the Order is confirmed as a prerequisite to construction of surface infrastructure. Our recommendation about how this could be achieved by a modification to the Order is set out in Chapter 9.

7.12 We have also looked in detail at the other related matters concerning geology, for example:

- the assessment of risks related to gas storage covering subsidence and crown hole collapse
- permeability of the halite

- wet rockhead pathways and wild brine runs
- the risk of seismic activity
- the risks associated with gas leakage to residential properties and to community amenities
- how emergencies would be dealt with.

We conclude that in view of the requirements of the COMAH Regulations which would need to be met, there is no reason to suggest the Order should not be confirmed on their account.

7.13 Turning to the impact of the development on the landscape, there are few issues relating to the western side of the Estuary, where apart from the seawater pump station in the Fleetwood Fish Dock, there is little surface development in any event. The main impacts on the eastern side of the Estuary are in the largely rural landscape, the scene of the historic brinewells. Whilst nearly all evidence of the plant associated with the former salt extraction industry has disappeared, this is a locality which has seen substantial industrial activity the past. Most of the surface infrastructure proposed for this application, i.e. the booster and seawater pump stations, pipelines and access tracks, can be accommodated without too much difficulty, though we consider the landscaping treatment to the proposed wellhead compounds could be improved within the powers of Requirement 4(3).

7.14 The main landscape issue in our minds is the GCC. We accept that the location ultimately chosen is required to properly service the wellhead compounds and that substantial attempts have been made to fit it into the landscape, and further mitigate views particularly from the Wyre Way and from the south. Nonetheless, this is a complex array of industrial plant much of which would be sited externally and in our view would create an intrusion in the local landscape however well screened it is. This is one of the principal reasons that we suggest the verification of the geology to enable the UGS caverns to be constructed, in order to fully justify the size and scale of the surface infrastructure as proposed. If that is achieved, with the safeguards provided by the requirements in terms of future landscaping details, and particularly the continuing refinement of the LEMSP, we are satisfied that the landscape and design disbenefits of the proposal do not outweigh the presumption of need.

7.15 The application was accompanied by a Flood Risk Assessment as required by NPS EN-1. An agreement has been reached between the Applicant and the EA to cover any impact on the existing flood protection embankments. We are satisfied therefore that these matters have been adequately provided for.

7.16 The project requires a network of pipelines both to connect the gas storage development to the NTS at Nateby, as well as to pump seawater to enable the caverns to be constructed, and return the saturated brine to the Irish Sea. Electricity supplies are needed

through underground cables from Stanah Switchyard on the western side of the Estuary to the GCC. We consider that the routes chosen for the pipelines and the proposed methods of construction are acceptable for the purposes of considering whether the Order should be made.

7.17 The project will require substantial volumes of brine to be discharged to the Irish Sea. Despite several representations against this proposal being made, the EA has extended the discharge consent granted in connection with a previous planning application to permit the discharge of brine at this location in the Irish Sea, and on that basis we see no reason to consider the proposed arrangements are unacceptable.

7.18 The approach adopted in the draft DCO submitted with the application to handling noise impacts during construction and operation is essentially to deal with these on a site by site basis as construction proceeds. However, we were concerned about the impact of construction noise on the residential development currently underway adjacent to the Fish Dock in Fleetwood and the caravan parks adjacent to the Stanah Switchyard. During the course of the examination, several modifications were suggested by the Applicant to the noise requirements in the Order, and at the conclusion amendments were proposed which to our minds appear to undo earlier understandings about the limits during night time drilling. For these reasons, we do not consider that amendments proposed by the Applicant to Requirement 26 should be made for reasons explained in Chapter 6, but that point apart, we conclude that noise mitigation is adequately provided for in the Order.

7.19 NPS EN-1 requires us to consider whether the project may have a significant effect on European sites. We conclude that in the light of the advice from NE there are no significant effects from the project on European sites, and if the Secretary of State as the competent authority agrees with this conclusion, no appropriate assessment is required. We have also carried out an assessment of the proposed development on SSSIs and concluded that notifications under the WCA are not required for these designated sites. As far as European and nationally protected species are concerned, we are satisfied that there are no major issues arising and we find no reason why the Order should not be confirmed in relation to these impacts.

7.20 Temporary construction compounds needed on both sides of the Estuary are normal consequences of construction activity and no particular issues arise about them. The new access road proposed to be constructed between the A588 and Higher Lickow Farm and thence to the GCC is the main change to access. The engineering advantages of this new access road are well appreciated, and indeed arose in part from considerations of access proposals in previous planning applications. LCC as the local highway authority are content with these arrangements, despite the landscape

impact. There are consequences for farming operations and individual landowners across whose land the new road would need to pass.

7.21 Traffic volumes during construction and particularly once operational would be low. The proposed means of providing a dedicated site access to deal with heavy construction vehicles offers the further advantage of keeping any traffic impacts of the project to very low levels. Similarly, there are few long-term alterations needed to the network of footpaths or their permanent diversion. There will be some impact of a temporary nature during construction, including diversion of the Wyre Way for a period of three years, but there are no proposals to permanently close or divert any footpaths or bridleways. We consider therefore the proposals to deal with rights of way are acceptable.

7.22 The project would not have any direct effect on a scheduled ancient monument or listed buildings or their setting. We conclude therefore that there are no built heritage or archaeological issues in connection with this application which would suggest the Order should not be confirmed.

7.23 Finally, there are limited socio-economic effects. Job creation during construction would be modest at 200 to 300 FTE jobs, and 35 to 40 FTE jobs once operational. We conclude therefore that socio-economic matters should have little bearing on whether or not the Order should be made.

OVERALL CONCLUSION ON THE CASE FOR DEVELOPMENT

7.24 NPS EN-1 advises that, subject to the provisions of s104 of the Act[24], the starting point for determination is a presumption in favour of granting consent to applications for energy NSIPs (paragraph 4.1.2).

7.25 In reaching our conclusions on the case for the proposed development we have had regard to the relevant NPSs, the LIRs submitted by LCC and WBC, and all other matters which we consider are both important and relevant.

7.26 We understand the deep-seated anxiety expressed by local residents and the fear they have of the potential consequences of UGS. It is compounded by the experience of having opposed three applications under the TCPA, albeit for larger scales of development and volumes of potential gas storage. This was expressed perhaps most forcefully by the three MPs whose constituencies cover or adjoin the area of the proposed development at the final session of the OF hearing held on 18 October 2012.

[24] Including adverse impacts from the development not outweighing the benefits.

7.27 In our view, provided the Applicant can demonstrate that the suitability of the salt in the two polygon areas is as high as it is assumed for the purposes of the application, there is no reason to suppose that the stringent safety requirements which would be imposed upon the operation of the scheme by the Competent Authority under the COMAH Regulations would not lead to an entirely safe and stable UGS facility, examples of which exist in other parts of the UK, and indeed in much larger numbers elsewhere in the world.

7.28 Bringing all these matters together, subject to a major proviso concerning the procurement of more detailed geological data to confirm the ability of the two polygons to store substantial volumes of gas, we conclude that in development terms[25], the application for development consent should be granted. We suggest how this proviso can be dealt with in terms of a modification to the Order in Chapter 9.

[25] As opposed to considerations relating to the compulsory acquisition of land and rights, considered in the next chapter.

8 COMPULSORY ACQUISITION MATTERS

THE REQUEST FOR COMPULSORY ACQUISITION POWERS

8.1 Compulsory acquisition powers are sought in respect of the whole of the land included in the Order and comprises land required for:

- 19 underground natural gas storage caverns
- wellhead compounds to accommodate the drilling rig
- wellhead gas manifold and distribution infrastructure to connect the completed caverns to the GCC
- an interconnector pipeline from the GCC to the NTS near Nateby
- water washing infrastructure to dissolve the salt and create caverns together with pumps and pipelines and drilling compounds
- seawater pump station and booster pump station
- new access road from the A588 to the main project site at Preesall
- brine discharge pipeline from the main project site to a point 2.3km offshore from Rossall to a two port diffuser
- two power communication control pipelines from Fleetwood Fish Dock to the main project site
- underground electricity cables from United Utilities switchgear at the Stanah Switchyard to the GCC
- modification to the sea wall at Rossall to accommodate the brine outfall and an observation platform.

The land in respect of which such powers are sought is described in this chapter as the CA Land.

8.2 The CA Land included in the Order is described in Chapter 3 of this report and also in clause 6 of the Statement of Reasons (APP24). The Book of Reference (APP26) identifies more than 200 plots of land and these are shown on the Land Plan, comprising 23 sheets (APP6). The application also includes a Funding Statement (APP25). Revisions to these documents where appropriate were submitted by the Applicant near the close of the examination (REP281, Appendices 1-4).

8.3 The powers sought include acquisition of:

- the whole of the freehold interest
- freehold interests more than 175m below the surface
- rights in land extending from and including the surface to 1000m below the surface
- rights for future maintenance
- rights to carry out works relating to landscaping and ecological works.

8.4 In addition, in relation to all the CA Land, save where the surface freehold is being acquired, the Applicant is also seeking powers for temporary possession and use of land. The reason for seeking these powers is to enable the Applicant to minimize the exercise of the powers of compulsory acquisition of land and rights and to allow land that is not required permanently for the project following completion of construction to revert to owners and occupiers.

8.5 Further, as mentioned in paragraph 8.7, Article 21 of the draft Order contains provisions relating to the overriding of easements and other rights in relation to the land.

8.6 A number of the plots comprise land in respect of which some protection against compulsory acquisition (including the compulsory acquisition of rights) is given by requiring that the land in question may be subject to special parliamentary procedure. This protection applies to statutory undertakers land, local authority land and open space land. The protection arises if objections are made by these bodies and not withdrawn. These plots are listed in Parts 1 and 5 of APP26. Also included in the Order are plots in which the Crown has an interest and these are listed in Part 4 of APP26. In addition to this protection, further requirements in relation to statutory undertakers land and open space land have to be met pursuant to the provisions of sections 138 and 131 respectively of the PA 2008.

8.7 The Order seeks to incorporate the provisions of the Compulsory Purchase (General Vesting Declarations) Act 1981 and also a provision relating to the overriding of restrictive covenants (Article 21) in similar terms to those set out in s237 of the TCPA 1990. Section 120(5)(a) of the PA 2008 provides that a DCO may apply, modify or exclude a statutory provision which relates to any matter for which provision may be made in the DCO. Under s117(4) if a DCO includes such provisions it must be in the form of a statutory instrument.

What the Planning Act 2008 (as amended) Requires

8.8 Compulsory acquisition powers can only be granted if the conditions set out in s122 and s123 of the PA 2008 are complied with. Section 122(2) requires that the land must be required for the development to which the DCO relates or is required to facilitate or is incidental to the development. In respect of land required for the development, the land to be taken must be no more than is reasonably required and be proportionate.[26]

8.9 Section 122(3) requires that there must be a compelling case in the public interest, which means that the public benefit derived from the compulsory acquisition must outweigh the private loss

[26] Guidance related to procedures for compulsory acquisition DCLG February 2010

which would be suffered by those whose land is affected. In balancing public interest against private loss, compulsory acquisition must be justified in its own right. But this does not mean that the compulsory acquisition proposal can be considered in isolation from the wider consideration of the merits of the project, and there will be some overlap. There must be a need for the project to be carried out and consistency and coherency in the decision-making process.

8.10 Section 123 requires that one of three conditions is met by the proposal. We are satisfied that the condition in s123 (2) is met because the application for the DCO included a request for compulsory acquisition of the land to be authorised.

8.11 A number of general considerations also have to be addressed either as a result of following applicable guidance or in accordance with legal duties on decision-makers:

- all reasonable alternatives to compulsory acquisition must be explored
- the Applicant must have a clear idea of how it intends to use the land and to demonstrate funds are available
- the purposes stated for the compulsory acquisition are legitimate and sufficiently justify the interference with the human rights of those affected.

The Approach of the Panel

8.12 With the whole of the application site being the subject of a request for compulsory acquisition powers in one form or another, we raised with the Applicant questions concerning drafting issues, Crown land, open space land, statutory undertakers land and the corporate structure of the various companies involved in the ownership of land at the proposed development site (PD2). In subsequent questions we sought evidence of the financial strength of the Applicant to meet all the compulsory acquisition compensation as well as other residual liabilities including decommissioning costs (PD13).

8.13 All questions were responded to by the Applicant. The details of the financial arrangements being proposed by the Applicant both for the payment of compulsory acquisition compensation and decommissioning costs are set out at paragraphs 8.32 to 8.34 below.

8.14 At the IS hearing on 24 July 2012 we asked the Applicant to make submissions to us about the adequacy of the proposed compulsory acquisition and decommissioning accounts in circumstances of:

- the financial failure of the Applicant after the development had been commenced and compulsory acquisition powers exercised
- the indebtedness of the Applicant company.

A full response on these issues was received from the Applicant (REP278).

8.15 A CA hearing was held on 9 October 2012. Objections to the proposed grant of compulsory acquisition powers were made by a number of Affected Persons (APs): Blackpool Borough Council, Blackpool Transport Services Ltd., National Grid, Knott End Golf Club, GJT and V Parkinson, S and E Raby, J Houghton, and Blackpool and Fylde College.

8.16 A very late objection was also received from AR and J Whitlow at the OF hearing held on 18 October 2012. Nonetheless, we requested a full submission of the objection to be made (REP282) so that the Applicant could respond (albeit in a very short period of time) before the close of the examination (REP283).

THE APPLICANT'S CASE

8.17 The Applicant's case for the grant of compulsory acquisition powers is set out in the Statement of Reasons (APP24), together with the Funding Statement (APP25), revised as noted in paragraph 8.2 above. Additionally, further information was provided by the Applicant in response to the Panel's questions and at the CA hearing.

Requirements for the Compulsory Acquisition of Land

8.18 At the time the application was submitted, the Applicant and Preesall Energy Services Ltd (PESL)[27], had a substantial land holding in the area and a freehold interest in 539.5ha of land at and around the main project site (the Preesall Site, where most of the above ground infrastructure will be located). The majority of this land is agricultural land farmed under a series of agricultural tenancies which confer varying degrees of security on the tenants.

8.19 In addition to the Preesall Site, the Applicant has acquired further interests and rights in land relating to the project. It has acquired from Associated British Ports at Fleetwood Fish Dock a temporary construction compound and an easement strip (comprising 2.2ha) in connection with the seawater pump station, seawater pipeline and brine discharge pipeline.

8.20 The Applicant has an option to acquire 1.1ha of land for the gas metering station on the NTS interconnector pipeline at Nateby, and terms have been agreed with the Crown for a lease of the long sea outfall extending from Rossall Beach to the diffuser ports in the Irish Sea.

[27] a company with which the Applicant has a contractual arrangement giving the Applicant the necessary rights to construct and operate the project on any land owned by it.

8.21 The Applicant is also in negotiations with the majority of other landowners and agricultural tenants who have interests in the DCO land.

Need for Power to Override Rights and Easements

8.22 Notwithstanding the Applicant's progress in acquiring CA Land as outlined above, all plots in the Book of Reference (APP26) remain in the DCO to ensure that any outstanding easements or other private rights are subject to the power of compulsory acquisition, as well as granting to the Applicant temporary possession rights as referred to at paragraph 8.4 above.

The Purpose in Seeking to Acquire the CA Land

8.23 The CA Land is required for the purposes of the project set out in paragraph 8.1 above. The Applicant has already acquired or has contractual options for a substantial element of the land and rights required for the project. The Applicant has continued to acquire land and rights by agreement and following the CA hearing submitted to the Panel an updated schedule of the position regarding acquisition by agreement at that time (REP281, Appendix 2).

8.24 The Applicant does, however, need compulsory acquisition powers to acquire the following land and rights:

- land on the Knott End golf course in connection with the development of a wellhead compound and landscaping
- land for the permanent access road to the Preesall Site between the A588 and Back Lane
- rights relating to the interconnector pipeline from the Preesall Site to the NTS at Nateby
- rights relating to the sea wall to and brine discharge pipeline between the Preesall Site and the long sea outfall at Rossall
- rights relating to the electricity supply cable between Stanah Switchyard and the Preesall Site
- rights relating to ecological and mitigation works.

8.25 The Applicant also seeks compulsory acquisition powers in respect of land within its or PESL's freehold ownership but which is subject to agricultural tenancies. The rights required are:

- for carrying out and maintaining landscape and ecological mitigation works
- relating to gas manifolds, distribution pipelines, power control and communications cables linking the wellhead compounds to the GCC
- in respect of the brine discharge pipeline, interconnector pipeline, electricity supply cable, seawater pipeline and brine outlet pipeline
- connecting the wellheads to the underground storage caverns.

8.26 To enable acquisition of any undisclosed and unknown interests and also the subsoil beneath Knott End golf course the Applicant is seeking compulsory acquisition powers to acquire any interests within the subsoil of the land within which the caverns will be created, at a depth of not less than 175m below the surface of the land.

8.27 The Applicant also seeks the compulsory acquisition of rights relating to the wells connecting the wellheads to the UGS caverns in land outside its freehold ownership in the area of Knott End Golf Club.

Alternatives to compulsory acquisition

8.28 Preesall is one of the few salt fields in the UK that does not already have an operating UGS facility or one that is under construction or with planning permission. The Applicant submits therefore that there is no practical alternative to the proposed location of the UGS caverns forming part of the project at the Preesall Site (APP24, paragraphs 9.2.2 and 9.8.1).

8.29 The GSR (APP37) explains why the proposed location of the UGS caverns is the most suitable from a geological perspective. Although the UGS caverns can only be located where suitable halite deposits are found the Applicant has examined a number of alternative designs for the infrastructure for the project including:

- for the siting of the above ground infrastructure
- alignments for the routeing of the gas interconnector to the NTS
- vehicular access to the main project.

8.30 These alternatives are assessed in the ES (APP17 to APP21), the Design and Access Statement (APP29) and the Planning and Sustainability Statement (APP28). The Applicant concludes that the most appropriate design for the project is the one put forward for development consent.

8.31 The Applicant argues that the need for UGS facilities is clearly established by national policies. Due to the particular characteristics of the project at Preesall, the Applicant considers that there are no reasonable alternatives to the project (APP24, paragraphs 9.2.2 and 9.8.1). Consequently the acquisition and temporary use of land and rights are necessary to enable the land required for the project to be assembled.

Availability of funds for compensation

8.32 The Funding Statement states that the Applicant has the ability to procure financial resources for the project, which includes the cost of acquiring any land and related compensation payments, and sets out how this will be carried out (APP25). We sought reassurance regarding the financial strength of the Applicant to

meet all the residual liabilities of the project including decommissioning costs (PD2).

8.33 The Applicant advised that it would commit through an obligation in the s106 agreement to place funds in a dedicated account to meet compulsory acquisition compensation. The amount in the account would be £2.5 million based on their professional adviser's estimate. The obligation would:

- prevent the Applicant from implementing the DCO or exercising any compulsory acquisition powers until the account was established and in funds
- bind the Applicant to only draw upon these funds for the purposes of payment of compulsory acquisition compensation and to certify accordingly to WBC.

8.34 With regard to decommissioning costs, the s106 agreement would require the Applicant to create a similar fund for an amount sufficient to meet decommissioning obligations under the requirements as agreed with WBC, or a scheme to be agreed with WBC for any decommissioning necessary in the course of construction. A charge over the fund would be granted to WBC in the event of default by the Applicant to comply with the relevant requirements.

A compelling case

8.35 The Applicant states that the CA Land is required for (or incidental to) the purposes of the project. Without the CA Land the project cannot take place and without the compulsory acquisition powers the CA Land could not be acquired and it would be prevented from delivering the project.

8.36 The Planning and Sustainability Statement (APP28), Preesall Need Case (APP32) and the Statement of Reasons (APP24) set out the national need for UGS facilities. The project would:

- meet the acknowledged need for UGS facilities in the UK as recognized in NPS EN-1
- be in accordance with national and regional and local planning and energy policy
- utilize the particular locational advantages of Preesall for UGS
- provide employment opportunities
- mitigate environmental impacts during its construction, operational and decommissioning stages.

8.37 The Applicant considers that there is a compelling case in the public interest for the DCO to be made and to include powers of compulsory acquisition, the extent of which has been shown to be necessary and proportionate to the extent that interference with private land and rights is required.

Special considerations

Open Space Land

8.38 Some of the pipelines and cables forming part of the project run under parts of three small areas of the CA Land which constitute open space land (the King George's Memorial Field, Kneps Farm Holiday Park and the Marine Parade area).

8.39 Under s131 and s132 of the PA 2008 a DCO is subject to special parliamentary procedure to the extent that it authorises the acquisition of land or rights over land forming part of open space, unless the Secretary of State is satisfied that certain statutory criteria have been met and issues a certificate to that effect.

8.40 The Applicant applied to the Secretary of State on 28 November 2011 for such a certificate. Notice of the Secretary of State's proposal to issue such a certificate was given on 18 July 2012 with a deadline of 17 August 2012 for representations to be made by the public.

8.41 At the CA hearing the Applicant advised us that a certificate was anticipated and it would be forwarded when received. Such a certificate had not been received by the close of the examination and accordingly the matter remains outstanding.

Crown land

8.42 The Crown has a number of interests in the CA Land which are held by different bodies:

- plot 1 is owned by The Queen's Most Excellent Majesty in Right of Her Crown
- plots 2, 3, 4, 5, 6, 7, 8, 9, 62, 63, 64, 65, 129, 130, 131, 132, 133, 134 and 135 are held by the Duchy of Lancaster
- plots 37 and 38 are held by the Secretary of State for Transport.

All Crown land is listed in the Book of Reference but is excepted from the request for compulsory acquisition powers.

8.43 Principal terms have been agreed with the Crown Estate for a lease for a term of 50 years. Whilst the Duchy of Lancaster has not objected to the application it has confirmed that it will not enter into negotiations for an option until a DCO is granted. Heads of terms have been agreed with the Highways Agency in relation to the Department of Transport land.

Statutory Undertakers

8.44 A number of statutory undertakers have interests in the CA Land. The position with regard to each undertaker is as follows:

United Utilities

8.45 United Utilities made no representation and have agreed and signed SoCG44. Protective provisions have been included in the Order and UU has confirmed it has no further comments on the matter (REP280, Paragraph 9.2).

Associated British Ports (ABP)

8.46 ABP made written representations (REP49) but following discussions and agreement reached with the Applicant withdrew them on 29 June 2012 (REP290).

National Grid

8.47 National Grid made written representations (REP214) but its solicitors confirmed that it was withdrawing its objection to both the compulsory acquisition powers sought under the draft Order and also its protective provisions (APP15).

Electricity North-West Limited (ENWL)

8.48 ENWL made a written representation but its solicitors confirmed that ENWL had no objections to the compulsory acquisition aspects of the application. Additionally ENWL has agreed the terms of an easements and wayleave with the Applicant (REP294).

Blackpool Borough Council and Blackpool Transport Services Ltd.

8.49 Written representations were made by Blackpool Transport (REP251) and by Blackpool Borough Council (REP250). Protective provisions have been included in the draft Order and an option agreement entered into. Consequently both Blackpool Borough Council and Blackpool Transport confirmed that their representations were withdrawn (REP261 and REP262).

Local Authority Land

8.50 Land owned by local authorities, in some cases land which is public highway, is included in the draft Order. No local authority has objected to the grant of compulsory acquisition powers in relation to its land but WBC submitted a representation at the CA hearing (REP247) and also requested changes to the arbitration clause in the draft Order. We comment on the request relating to the arbitration clause at paragraph 9.40 below.

Human Rights

8.51 The Applicant acknowledges that Article 1 of the First Protocol, Article 6 and Article 8 of the European Convention on Human Rights are engaged but considers that the project will not conflict with these rights and is proportionate. The Applicant argues that there is a compelling case in the public interest for the proposals

which outweigh the impact on individual rights; it is relevant that those affected will be entitled to compensation and the public benefits are set out in section 9 of the Statement of Reasons (APP24).

8.52 With regard to Article 1 of the First Protocol and Article 8, the Applicant has weighed any interference with these rights with the potential public benefits if the DCO is made. It considers there would be significant public benefit arising from the grant of the DCO but these can only be realised if the compulsory acquisition powers are granted. It concludes that these significant public benefits outweigh the effect of the DCO upon those whose property interests are affected and that they would not be a disproportionate interference with Article 8 and Article 1 rights.

8.53 Further, those affected by compulsory acquisition or temporary use powers will be entitled to compensation and the Applicant has the resources to pay such compensation.

8.54 With regard to Article 6, third parties have been able to make representations and consultations have been carried out with those whose land is affected. A CA hearing will be held to consider the submissions of objectors to the proposal and if the DCO is made a person aggrieved may challenge the DCO by judicial review in the High Court if they consider they have grounds to do so pursuant to s118 of the PA 2008. Additionally, any dispute in relation to compensation can be referred to the Upper Tribunal (Lands Chamber).

8.55 For these reasons the Applicant considers that the grant of powers of compulsory acquisition would not breach the Convention rights of those affected, and that it would be appropriate and proportionate to make the DCO including the grant of compulsory acquisition powers.

Applicant's Case - Conclusion

8.56 The inclusion of compulsory acquisition powers in the Order for the purposes of the project would meet the conditions of s122 of the PA 2008 and Guidance for the reasons summarised in APP24 and set out in full in the documents referred to it:

- the CA Land is either required for the development to which the development consent relates and/or is incidental to or required to facilitate the proposed development
- the CA Land is no more than is reasonably required for these purposes
- there is a compelling case in the public interest for the land to be acquired compulsorily: the substantial benefits to be derived from the proposed compulsory acquisition and temporary use of the CA Land would decisively outweigh the

private loss that would be suffered by those whose land is to be acquired.

THE OBJECTORS CASES

Blackpool Borough Council and Blackpool Transport Services Ltd.

8.57 The representations and objections of both parties were withdrawn (REP261 and REP262).

National Grid

8.58 National Grid's objection was withdrawn (REP246).

Knott End Golf Club (KEGC)

8.59 KEGC submitted written representations and a series of subsequent letters opposing the Applicant's wish to acquire land and rights over land owned by the Golf Club[28] The Club also appeared and made representations at the CA hearing (REP256 and REP260).

8.60 KEGC objected to the application for temporary possession rights in relation to all plots owned by the Golf Club. Its position in relation to the individual plots was as follows:

- plot 66 - objection to temporary possession only
- plot 67 - objection to temporary possession only
- plot 68 - seeks removal of this plot from acquisition because it encroaches on the 11th green
- plot 69 - seeks removal of this plot from acquisition because KEGC will lose the 8th and 9th tees
- plot 70 - objection to temporary possession only
- plot 71 - objection to temporary possession only
- plot 72 - affects amenity value, future development potential, and also creates risks to adjacent KEGC land
- plot 73 - seeks removal of this plot from acquisition because KEGC believes it would encroach on the 5th and 6th tees
- plots 74, 75, 76, 77 and 79 - objection to temporary possession only
- plot 78 - no objection to its acquisition unless the plot extends to the east of the roadway.

In summary, KEGC:

- objects to temporary possession rights for all plots
- subject to the above has no objections to the acquisition of plots 66, 67, 70, 71, 74, 75, 76, 77, 78 and 79
- objects to the acquisition of plots 68, 69, 72 and 73.

[28] REPS 48,195,215,231,232,233,235,247,270,281 and 318.

8.61 KEGC also expressed concerns regarding subsidence, the potential loss of development land and a number of other risk issues referring in particular to the Planning Advisory Zones considered by the HSE in the COMAH process (REP256).

GJT and V Parkinson: Plots 165 and 166

8.62 Mr Parkinson was concerned about the effect on drainage and the difficulties relating to reinstatement of the ground (REP212). Mr Parkinson farms approximately 22.7ha with between 90/115 beef cattle; the proposed land take is about approximately 1ha and this area was one of the best fields on the farm.

8.63 Mr Parkinson expressed concern at the timescale for carrying out the works, the unstable nature of the subsoil, which in his opinion was unsuitable for installing a pipeline, and concerns regarding the safety of the pipeline in these circumstances. He was also concerned as to how access to the proposed strip of land would be secured. Mr Parkinson did acknowledge at the CA hearing that if the DCO was granted he would negotiate with the Applicant.

S and E Raby: Plot 153

8.64 Mr Raby was concerned that the proposed 47m wide strip of land (which it was intended to be used for the underground pipeline and a surface road) would have a detrimental impact on the outlook from his property (REP213). He was particularly concerned about flooding which would arise if land drains and ditches were not kept clear. He hoped that if the proposal went ahead the road would be built as far away from his property as possible.

Mr Houghton: Plot 179

8.65 Mr Houghton objected to the grant of compulsory acquisition powers because a nature reserve containing many species of wild flowers he had developed over many years would be destroyed (REP255). Mr Houghton owned some approximately 16.2ha including woodland and his house, and claimed that some 12ha would be affected by the proposals. He also expressed concern regarding the drainage of the land. So far as the nature reserve was concerned Mr Houghton confirmed that there were no public designations or public bodies involved. It was purely a private venture although he hinted it may one day become public.

Blackpool and Fylde College: Plots 31 to 35

8.66 The College objected to the grant of compulsory acquisition powers in particular regarding the proposed permanent 20m access rights as well as the request for temporary possession rights. The College was also concerned that the rights would interfere with the College's right to access adjacent land to lay and maintain a foul sewer (REP215).

Mr Whitlow: Plots 99, 100, 101, 102, 103, 104, 105, 106, 108, 109, 110, 149 and 150

8.67 Mr Whitlow is a tenant farmer of approximately 55ha held under three tenancies. Two are Agricultural Holdings Act 1986 tenancies where Mr Whitlow has lifetime security of tenure but subject to a 'development' clause. This provides that the landlord can recover possession on notice if the land is required for development and has the benefit of planning permission to do so. The third tenancy is an Annual Farm Business Tenancy which if not renewed by the landlord would simply come to an end by the effluxion of time. The Applicant is the landlord in respect of all three tenancies.

8.68 Mr Whitlow objects to the compulsory acquisition of his land on the following grounds (REP282):

- the loss of agricultural land and the wider impact on his farming business; there would be a permanent land loss of approximately 10% of his land holding and over 40% of his holding would be affected
- the construction of the new access road from the A588 to Higher Lickow Farm would prevent access to parts of his land and if he were to build a new access this would take up more of his productive land
- there would be increased traffic generation in the local area making stock movements more difficult
- the combination of these factors, especially the loss of land on both a permanent and temporary basis would be devastating to his business making it unviable and would lead to its closure.

THE APPLICANT'S RESPONSE TO THE OBJECTIONS

Knott End Golf Club (KEGC)

8.69 The Applicant stated at the CA hearing that the power of temporary possession was required on all the KEGC plots (save those being acquired) in order to place monitoring pins if required on the land. Further, it would seek to locate the pins so as to cause as little interference as possible with the KEGC activities.

8.70 In relation to the other compulsory acquisition powers sought the Applicant's response at the CA hearing to the KEGC objections was:

- plot 68 - this was a small slither of land needed to widen the roadway: the Applicant did not consider it interfered with the 11th fairway and 11th green
- plot 69 - instead of seeking to acquire the freehold of the plot the Applicant would only seek new rights to bore through the land, the freehold below 175m and rights of temporary possession to place monitoring pins on the land; (this was an

approach which was not unacceptable to KECG in relation to other plots)
- plot 72 - this plot is required for the construction of wellhead 1 and the related compound
- plot 73 - there was some misunderstanding as to the location of this plot; it is in fact part of the field which is tenanted and as such it is understood there is no objection to the rights sought (save for the rights of temporary possession)
- plot 78 - there was no objection to the acquisition of this plot if it did not extend to the east of the road.

8.71 KEGC had raised a number of other concerns to which the Applicant responded as follows:

- Requirements 17 to 28 would control matters such as fencing, construction hours, drilling, construction practice and control of dust; this package of measures would provide effective mitigation and if there was an impact causing loss or damage to KEGC it could claim compensation
- the history of planning applications made by KEGC served perhaps to show the flexibility for the location of greens and tees
- golf courses do not come within any of the Planning Advisory Zones considered by the HSE in the COMAH process
- the Applicant reminded us that the risks were minimal (APP43, section 4.10.7)
- subsidence was addressed in the GSR (APP37) and whilst subsidence could occur the risk was small; further, Requirement 35 addresses subsidence
- there were three reasons why the wellhead 1 compound was where it was:
  - engineering factors relating to distances to other wells
  - the main sewer pipe to the Hackensall STW prevented the wellhead being located to the south
  - there was a desire to locate the wellhead compound 1 as far as possible from the Wyre Way.

8.72 In summary, the Applicant sought all the powers included in the Order, save for the amendment in relation to plot 69. It was conscious of the concern over the temporary possession rights needed to locate monitoring pins and would seek wherever possible to reach sensible solutions with KEGC.

GJT and V Parkinson

8.73 The Applicant referred us to their response to our first round of questions (REP203) which addressed many of the practical concerns raised by Mr Parkinson. Further, the Gas Interconnector Pipeline report (APP41) emphasized the need for discussions with landowners to understand the watercourses and drainage systems and this the Applicant sought to do where owners would meet and

discuss the issues. On the other points raised by Mr Parkinson the Applicant responded:

- access to the plot would be linear from the existing road system
- with regard to severed land, whilst there was no statutory obligation to provide accommodation works, the Applicant sought to make ongoing farming as easy as possible and tried to accommodate owner's requirements wherever possible and thus minimising compensation
- treatment of soil is acknowledged as important and Requirements 29 and 30 provide adequate safeguards
- where owners are prepared to negotiate, agreements entered into provide considerable detail on how matters such as soil, drainage, compensation and accommodation works would be dealt with; the Applicant was in discussion with 20 of 26 landowning parties with a view to concluding such agreements.

S and E Raby

8.74 The plot in question was 47m wide from north to south. Of this, 10m would be roadway (almost certainly built along the southern boundary of the plot) and the pipeline would be laid in the remaining 37m with a reserved right of access over a 20m wide strip. It may be that the whole of the width of the plot would not need to be used. There would be a stock proof fence along the boundary and the LEMSP also required a hedge to be planted adjacent to it (REP203, Appendices 23, 24 and 25).

J Houghton

8.75 The Applicant advised us at the CA hearing that the nature reserve was a private venture and did not enjoy any statutory or public designation. Once the pipeline had been installed, then subject to access rights for maintenance of the pipeline the use of the land would revert to the owner. The legal agreements being offered to owners would if entered into provide an opportunity to take into account Mr Houghton's particular use of the land.

AR and J Whitlow

8.76 The Applicant stated (REP283) that of the 13 plots owned by Mr Whitlow where compulsory acquisition powers were sought, only 4 were to be acquired on a permanent basis and the reasons for their acquisition are set out in APP24. As for the remainder, where rights were required in connection with the laying of the gas pipeline, landscape and ecological mitigation works, surface monitoring pins and electricity pylons and cables, whilst they would be subject to temporary disruption and to future access rights for maintenance, the land concerned would be retained by Mr Whitlow for agricultural use.

8.77 The Applicant acknowledged that the construction of the access road would disrupt the existing access arrangements on Monks Lane. Alternative accesses are available although a new access would require the construction of a new farm track. Crossing points on the new road have been agreed with Mr Whitlow and accommodation works would be offered by the Applicant both during and after construction.

8.78 The Applicant acknowledged that the loss of land on both a permanent and temporary basis would have an impact on the farm business but does not consider that this would make the business unviable.

THE PANEL'S CONCLUSIONS

8.79 Our approach to the consideration of the granting of compulsory acquisition powers has been to address the requirements of s122 and s123 of the PA 2008, the Guidance[29], Regulations[30] and the Human Rights Act 1998, and to consider in the light of representations received from APs and evidence submitted whether a compelling case in the public interest has been made, balancing public interest against private loss.

8.80 We are mindful, however, that the DCO embraces both the development and compulsory acquisition powers, and that the case for the grant of compulsory acquisition powers cannot properly be addressed until the position regarding the development has been considered and determined. Accordingly, we have adopted a two stage approach. We have first formed a view on the case for development and then in this chapter have proceeded on the basis of that conclusion.

8.81 Chapter 7 reaches the conclusion that subject to a major proviso, in development terms consent should be granted. What we do in this Chapter is to consider whether the justification for the grant of the development consent forms a justifiable basis for the grant of the compulsory acquisition powers sought.

8.82 The effect of s122(1) and s122(2) of the PA 2008 is to require that the land is needed for the development to which the development consent relates: effectively that the land needs to be acquired, or rights over it acquired or impediments upon it removed, in order that the development can be carried out. To reach our judgment on this requirement we have examined the case which has been made for the grant of compulsory acquisition powers in respect of all the plots in the Book of Reference (APP26) for the works as described in clause 5.2.4 of the Statement of Reasons (APP24) and the justification as set out in clause 9. These seek to demonstrate that the Applicant has clear proposals for how it intends to use the

[29] Planning Act 2008 Guidance related to procedures for compulsory acquisition, DCLG 2010
[30] The Infrastructure Planning (Compulsory Acquisition) Regulations 2010.

Order land: each part of the Order land is either required for the development to which the DCO relates or is incidental to that development.

8.83 We are satisfied that in the event of the grant of development consent for the construction and operation of a UGS facility at Preesall there will be a need to acquire the rights and interests in the CA Land and the powers sought in the DCO would be required to implement the development.

8.84 With regard to s122(3), in considering whether there is a compelling case in the public interest there are a number of issues to be considered in balancing the public interest against the private loss which would occur.

8.85 The need for UGS facilities is recognised in NPS EN-1 and NPS EN-4. In our opinion, the public benefits associated with the development of the UGS facility at Preesall outweigh the disbenefits. Granting the DCO would be in accordance with both NPS EN-1 and NPS EN-4. Overall, the public benefits associated with the project would in our view outweigh the private loss that would be suffered by those whose land is to be acquired to enable the project to occur.

Alternatives

8.86 To determine whether or not alternatives to the proposed land take exist we have considered the approach taken by the Applicant. As set out in paragraphs 8.28–8.31 above, Preesall is one of the few salt fields in the UK that does not already have an operating UGS facility or one that is under construction or with planning permission. Its location therefore is determined by the presence of the salt fields in the area. Although the UGS caverns can only be located where the salt beds are found the Applicant has examined a number of different designs for the infrastructure for the project.

8.87 We accept that the site location is determined by the presence of the halite deposit and as such there is no alternative to this. We are satisfied that in so far as alternatives can be considered in relation to the design of the facility, the Applicant has considered reasonably all feasible alternatives and that there are no alternatives which ought to be preferred.

Funding

8.88 We are required to make a judgment as to whether adequate funding would be available to meet compensation claims in the event of compulsory acquisition powers being granted. In doing so we have had regard to the powers of the PA 2008, Guidance and the Human Rights Act 1998. Guidance requires that an application for a DCO authorising compulsory acquisition powers must be accompanied by a statement explaining how it will be funded and should include information about the resource implications of both

acquiring the land and implementing the project for which the land is required.

8.89 The Applicant submitted a Funding Statement (APP25) setting out how it proposed to finance both land and construction costs. We sought clarification from the Applicant on the corporate structure of the companies involved in the ownership of land within the project site and evidence of the Applicant's ability to meet all the residual liabilities of the project including decommissioning (PD2 and REP203).

8.90 Paragraphs 8.32 to 8.34 refer to the discussions which took place with the Applicant regarding our concerns in relation to funding. We subsequently pursued with the Applicant the security of the funds which would be paid into the two dedicated accounts to meet compulsory acquisition compensation and decommissioning costs respectively and we were satisfied with the explanations provided (REP278, paragraph 5).

8.91 On 18 October 2012 the Applicant concluded with WBC an agreement under s106 of the TCPA (REP281, Appendix 24). The agreement provides that no powers of compulsory acquisition shall be exercised under the DCO until a compulsory purchase monies fund in the sum of £2.5million is in place and a legal charge over it has been granted to a security trustee (yet to be determined).

8.92 Further, the agreement also provides that the development shall not be implemented until the Applicant has:

- obtained WBC's approval of a decommissioning scheme fund plan
- paid into the fund the amount specified prior to the commencement of the development
- granted to WBC a legal charge over the fund.

8.93 On the basis that the s106 agreement would secure funding for both compulsory acquisition compensation and decommissioning costs, we consider the Funding Statement (APP25) and the provisions set out in the s106 agreement are adequate to support a compelling case for the grant of compulsory acquisition powers.

Human Rights

8.94 The Applicant acknowledges that the DCO engages a number of the articles of the Human Rights Act:

- Article 1 rights of those whose property is to be compulsorily acquired and whose peaceful enjoyment of their property is to be interfered with
- Article 8 which protects the rights of the individual to respect for his private and family life
- Article 6 which entitles those affected by the project to a fair and public hearing by a independent and impartial tribunal.

8.95 The Applicant sets out at paragraph 10.3.3 of the Statement of Reasons (APP24) how it has weighed the interference with these Convention rights arising from the exercise of the compulsory acquisition powers with the potential public benefits if the DCO is made.

8.96 Having regard to the relevant provisions of the Human Rights Act 1998 we have considered the individual rights interfered with and are satisfied that in relation to Article 1 of the First Protocol and Article 8 the proposed interference with the individuals' rights would be lawful, necessary, proportionate and justified in the public interest.

8.97 In relation to Article 6 we are satisfied that all objections which have been made have either been resolved by the Applicant with the objectors or they have had the opportunity to present their cases before us at the CA hearing.

The Panel's Conclusions on the Issues Raised by Objectors

Knott End Golf Club (KEGC)

8.98 Subject to maintaining their objection to the acquisition of temporary possession rights in respect of all of their land affected by the DCO, KEGC adopted a pragmatic approach and were able to agree the proposed compulsory acquisition powers sought save in respect of plots 68, 69, 72 and 73. KEGC withdrew its objection to the inclusion of plot 78 because the Applicant met the condition stipulated by the KEGC.

8.99 In relation to plot 68 we do not consider that it interferes with the 11th fairway or the 11th green, and our final accompanied site visit on 19 October 2012 confirmed our view on this.

8.100 The powers sought in relation to plot 69 have been amended as described in paragraph 8.70 and we are satisfied that on this basis the requested powers should be granted.

8.101 Plot 72 is the site of the wellhead 1 compound and a key part of the development. Its location has been determined by the considerations set out at paragraph 8.29 above. We conclude that the objections by KEGC are not sufficient to overcome these and that their other concerns are adequately addressed in Requirements 17 to 28 which would ensure mitigation at an acceptable level. We do not believe that any issue arises with regard to the COMAH Regulations regarding planning zones since golf courses are not included in any of the zones as prohibited development. Subsidence is addressed in Requirement 35.

8.102 However, turning to the power sought for temporary possession on all plots, we consider that this would have a severe and unacceptable adverse impact on the continued use and enjoyment of the 18 hole Knott End golf course.

8.103 Our inclination was to refuse the grant of the power and leave the Applicant to secure the rights it required by agreement with KEGC. However, our discussions with the Applicant on this issue at the CA hearing on 9 October 2012 led us to request the conclusion of an agreement with KEGC if this was possible. This was not achieved, but our request resulted in the submission to us by the Applicant of a unilateral undertaking in favour of KEGC (REP281, Appendix 7).

8.104 Although not accepted by KEGC (REP281, Appendix 8), we consider that the terms of the undertaking address most of the concerns of KEGC regarding the temporary possession power. Accordingly in these circumstances we see no reason why the power should not be granted.

GJT and V Parkinson

8.105 Having considered and acknowledging all the concerns raised by Mr Parkinson, none in our view outweigh the public benefits arising from the implementation of the scheme. We are mindful that many of the issues raised can be addressed by negotiation and the conclusion of an agreement in similar form to that produced by the Applicant (REP281, Appendices 9 and 10). Further, subject to the rights in relation to access for maintenance sought by the Applicant, Mr Parkinson will be able to continue farming the land once reinstated and will be able to claim compensation for any losses which arise during the period of disruption.

S and E Raby

8.106 We are satisfied that the acquisition of land from Mr Raby for the access road and installation of the pipeline is necessary for the implementation of the project. The proposed mitigation by the provision of fencing and hedging will help to overcome some of Mr Raby's concerns and where they do not he remains able to pursue a claim for compensation.

J Houghton

8.107 The interference with Mr Houghton’s nature reserve is of temporary duration after which subject only to access rights for maintenance Mr Houghton will continue to use and enjoy his property.

Blackpool and Fylde College

8.108 We are of the view that nothing in the College's objection raises matters or issues which cannot be settled by agreement with the Applicant or by the payment of compensation if agreement cannot be reached.

AR and J Whitlow

8.109 We accept that there will be a loss of agricultural land both on a permanent and temporary basis and that this will have an effect on

Mr Whitlow's business. However, we have seen no evidence to suggest that the consequence will be that the business will become unviable and lead to its closure. Such losses that do occur if quantified will be eligible for compensation.

8.110 We also appreciate that the construction of the new access road will alter access arrangements but if this leads to a loss of productive agricultural land such loss would be eligible for compensation. We do not consider increased traffic generation will cause an unacceptable interference with stock movements.

THE PANEL'S RECOMMENDATION ON THE REQUEST FOR COMPULSORY ACQUISITION POWERS.

8.111 With regard to s122(2) of the PA 2008 we are satisfied that the legal interests in all plots described and set out in the Book of Reference (APP26) and on the Land Plans (APP6) as amended (REP281, Appendices 1-4) and in relation to plot 69, are required in order to implement the development.

8.112 With regard to s122(3) we are satisfied in relation to the application that:

- development consent for the development should be granted
- the NPSs are to be considered the pre-eminent policy
- the NPSs require that the need case is to be considered as already proven
- there are no sites which are alternatives to the Preesall Site
- the funding is adequate and secure so far as may be achieved under the PA 2008
- the interference with human rights is considered lawful in the public interest and proportionate.

8.113 In relation to all the objections from APs referred to above and considered by us we do not consider that the private losses suffered are such as to outweigh the public benefits that would accrue from the grant of the compulsory acquisition powers which are sought.

8.114 In these circumstances, we consider there is a compelling case in the public interest for the grant of the compulsory acquisition powers sought by the Applicant in respect of the CA Land as shown on the Land Plans.

8.115 Lastly, with regard to the incorporation of other statutory powers pursuant to s120 (5) (a) we are satisfied that as required by s117 (4) the DCO has been drafted in the form of a statutory instrument and further that no provision of the DCO contravenes the provisions of s126 which precludes the modification of compensation provisions.

9 THE PROPOSED ORDER AND THE S106 AGREEMENT

9.1 The proposed Development Consent Order (DCO) is the heart of the application, setting what the approval would cover, what is authorised, the compulsory acquisition of land and rights, and what is governed by way of requirements (analogous to planning conditions). The DCO submitted as part of the application enabled the Panel and participants in the process to see what is envisaged and precisely how the project is intended to be authorised and controlled. We identified at an early stage in the examination of the application that we needed to consider the draft DCO in detail and so provided in the timetable for two IS hearings on 24 July and 22 August 2012 for this purpose to discuss on an entirely without prejudice basis the drafting of the DCO.

9.2 The application documents contained the draft DCO (APP22) and explanatory memorandum (EM) (APP23), with applications for a deemed marine licence (APP16) (which forms part of the Order itself at Schedule 7) and a separate application for a deemed HSC (APP15). At the time the application was submitted, there was no draft development consent obligation pursuant to s106 of the TCPA 1990 (s106 agreement) in place between the Applicant and the local authorities, but there were draft heads of terms (APP31). We did not pose any specific questions about the DCO as part of our first round of questions given that we had fixed IS hearings in order to consider the draft DCO in detail.

9.3 The two local authorities (LCC and WBC) had no comments on the DCO other than a minor point in each case (SoCG3). However, both Councils in their LIRs raised a number of detailed comments about the requirements in Schedule 9, and the draft heads of terms. The Applicant supplied version 2 of the DCO shortly before the IS hearing arranged for 24 July 2012 (REP277). This revised version was in the light of representations received and particular comments from NE, EA and MMO. A first draft of the s106 agreement was also supplied.

9.4 At the IS hearing on 24 July 2012, we explored particularly the relationship between the deemed marine licence and the conditions attached to it contained in Schedule 7, and the potential geographic overlap with the requirements in Schedule 9. We asked for some further work to be done to clarify these matters and as a result decided to postpone the second IS hearing to consider the DCO arranged for 22 August 2012 in order to give the Applicant and the relevant IPs (particularly WBC, LCC, the MMO and NE), sufficient time to address these. We set a deadline of 31 August 2012 for a comprehensive response to our request which was met by the submission of a third version of the DCO, a revised EM, revised draft s106 agreement, and supporting documents (REP278).

9.5 Prior to the IS hearing which took place on 18 September 2012, the Applicant supplied a fourth version of the draft DCO and a revised s106 agreement taking into account further discussions with WBC, the MMO and NE. The s106 agreement also reflected further discussion with WBC about decommissioning arrangements and the funding of WBC's costs for enforcement and handling of applications for discharge under the requirements. It was therefore the fourth version of the DCO which was used as the basis of discussions at the IS hearing on 18 September 2012 (REP279).

9.6 As explained in paragraph 5.56 above, we also arranged an IS hearing for the following day to deal in detail with the interrelationship between the DCO and the COMAH regime. In advance of the CA hearing arranged for 9 October 2012, the Applicant submitted a fifth version of the draft DCO and a revised s106 agreement (REP280). Following the CA hearing, we wrote to the Applicant with some further requests in relation to version 5 of the draft DCO and the s106 agreement, together with a request to bring together all the changes to plans, the Statement of Reasons and the Book of Reference (PD26). The Applicant duly supplied this is shortly before the examination closed (REP281).

9.7 The sixth version of the DCO, the accompanying explanatory memorandum and the executed copy of the s106 agreement between WBC and the Applicant therefore represents the outcome of the attention given to the DCO during the examination (REP281, Appendices 20, 22, 24 and 25). We are grateful to the Applicant in readily responding to our requests and queries to make changes to the DCO to achieve this.

9.8 This final version of the Order is at Appendix D with the modifications we recommend should be made, and a summary of the s106 agreement is included at Appendix A.

THE ORDER

9.9 The final draft of the Order is in the form of a Statutory Instrument with 43 articles and 9 schedules. The authorised development is described in Schedule 1 in terms of 21 Works covering:

- the NSIP (the proposed 19 operational UGS caverns which constitute Work No 1A)
- associated development:
  - the wellheads, GCC, booster pump station, and seawater pump station which constitute Works Nos 1B, 2-4 and 15
  - related infrastructure such as access roads, pipelines, power supply arrangements which constitute Works Nos 5 - 14, 16 – 21
  - access improvements and cable connections which constitute Works Nos 3 to 9.

The authorised development would be subject to 39 requirements set out in Schedule 9. Schedule 7 contains the deemed marine licence under part 4 of the Marine and Coastal Access Act 2009.

9.10 The EM (REP281, Appendix 22) contains a description of the provisions of the draft Order, systematically covering the purpose of each article, schedules and the requirements in detail. Other than the following paragraph, we have no further comments to make on Parts 1 – 4 of the Order, nor Schedules 1 – 6.

9.11 Section 138 of the PA 2008 states that any provision in the DCO for the extinguishment of a statutory undertaker's right or removal of statutory undertaker's apparatus requires the consent of the Secretary of State, unless the statutory undertaker's representation has been withdrawn. Paragraphs 8.44 to 8.49 in Chapter 8 confirm that representations made by statutory undertakers have been withdrawn, and in these circumstances, the consent of the Secretary of State pursuant to s138 (4) is not required. However, s138 (4)(a) still requires the Secretary of State to be satisfied that the extinguishment or removal of rights or apparatus is necessary for the purpose of carrying out the development. As the representations have been withdrawn there is no reason in our view why the Secretary of State should not be so satisfied.

9.12 Schedule 7 of the Order contains a draft marine licence which is deemed to be granted under part 4 of the Marine and Coastal Access Act 2009. These are powers to be exercised by the MMO who have confirmed their agreement to the Applicant (REP280, paragraph, 3.2.4). The main aspects of the licence are conditions to control construction of works within the applicable part of the UK Marine area, essentially below mean the high water mark. The particular works to be consented are the offshore elements of the brine discharge pipe west of the sea wall into the Irish Sea. The licence is self-contained such that there is no overlap intended between the powers it covers and the rest of the Order. For that reason, we considered particular care is required to ensure the integrity with the requirements covering the construction of those underground caverns which stretch beneath the territory covered by the marine licence.

9.13 We were concerned therefore that in our view the Order as originally submitted contained a degree of confusion between the conditions in the draft marine licence to be met to the satisfaction of the MMO, and the requirements in Schedule 9 of the Order which would fall to WBC as the local planning authority to discharge. Several redrafts of the licence were progressed during the examination. That included at Schedule 7 is fully part of the Order: it is not a separate document as explained fully in the submission from the Applicant (REP280, section 7).

9.14 We sought the submission of a map to show the area described in paragraph 9 of Schedule 7 to which the licence relates. The precise description of the area by coordinates is otherwise difficult to follow, and although this does not form part of the Order it is helpful to refer to the plan supplied by the Applicant (REP280, Appendix 5).

9.15 We are now satisfied that the deemed marine licence does properly apply to those works which are relevant in paragraphs 8 and 13 of Schedule 7. Those conditions sought by other organisations have also been included in Schedule 7, for example a vessel movement plan requested by NE at paragraph 19, and marine archaeological investigation by English Heritage at paragraph 24.

9.16 Schedule 8 contains the protective provisions for statutory undertakers. Part 3 for the benefit of Blackpool Borough Council is now in an agreed form to protect the Council's interests as owner of the Blackpool to Fleetwood Tramway.

Requirements

9.17 Schedule 9 contains the requirements to control the detailed aspects of construction, and would fall entirely to WBC as the relevant planning authority. We discuss in Chapters 5 and 7 the arguments for proposing a modification to the requirements to provide a next step of geological survey to cover the two polygons within which the caverns are proposed to be constructed. The following paragraphs set out our reasoning for how this can be achieved.

Proposals for Modifications to Requirement 6

9.18 In answer to our further written questions about the additional survey work that would be carried out prior to the commencement of the COMAH process, the Applicant stated that should development consent be granted, they intend to conduct further surveys to provide additional detail about the geological structure. Such surveys could comprise 2D seismic lines or even 3D surveys of each polygon (REP207, paragraph 5.56). There would be pilot holes for each cavern, and additional geological surveys (based on the availability and reliability of down-hole exploration tools which can operate in deviated boreholes) would be considered bearing in mind the requirements of the Competent Authority (REP207, paragraphs 5.57 and 5.58). Down-hole investigations could comprise gamma-rays, density, temperature and caliper logs, which would provide targeted data on salt rockhead conditions at each proposed cavern location, and verify the levels and condition of salt/mudstone interfaces and the positions of the wild-brine runs (REP207, paragraph 5.63).

9.19 The Applicant stated at the IS hearing on 19 September 2012 that it would be their intention to investigate the cavern areas

geologically one by one, refine the model and seek Competent Authority approval as they progressed. Techniques for carrying out detailed geological surveys are improving rapidly and there is no commitment at this stage therefore as to exactly how this next stage of work would be carried out.

9.20 We explored during the examination how our concern to see a comprehensive geological survey of the two polygon areas before actual development commences could be secured through the requirements. On 28 September 2012, we asked for the views of the Applicant, LCC, WBC, HSE and EA about the construction of a potential new sub-paragraph in Requirement 6:

> *'Prior to the submission of the safety reports to the Competent Authority (pursuant to Regulations 7(1), 7(5) and 8 of the 1999 Regulations) such geological investigations as may be necessary shall be undertaken across the "area for cavern development" shown on the approved development plan with reference A-1000-030 Rev B , and shall be submitted for approval by Lancashire County Council to confirm the top and bottom levels of the halite bed to a confidence limit of ± 5 metres, and that no faults of such size as may affect the integrity of the proposed caverns penetrate the halite bed'*
>
> (PD23)

9.21 The Applicant firmly opposed such an addition to the requirement as unnecessary and inappropriate for the following reasons:

- it would duplicate the COMAH regime
- the purpose of the requirement is not clear, given that LCC has signed SoCG1
- LCC is not a specialist safety regulator and does not have the necessary expertise
- the risk of delay and uncertainty to the project from an additional stage in the process
- a need to resort to appeal mechanisms in case of dispute with LCC
- the wording of the requirement is imprecise
- there is no precedent for such a condition in other UGS schemes approved by the Secretary of State under the TCPA (REP319).

9.22 LCC responded in support of a proposed amended requirement as being consistent with its LIR, and suggested it would:

- address the absence of physical information on the geology of the area within which caverns are proposed
- demonstrate the capability of the geology to accommodate the caverns

- be helpful given that a significant percentage of the infrastructure needs to be constructed before a cavern could be created

but that:

- a requirement should be sufficiently precise to identify what geological site investigations are necessary to be undertaken
- restrictions on the development going ahead should be imposed in the event of faults of such size as may affect the integrity of the proposed caverns are identified
- the size of such faults should be defined
- the outcome of the site investigation should be submitted to WBC as the relevant planning authority (REP320).

9.23 HSE responded that they could not become involved in any assessment of how geological data might influence planning decisions (REP317). EA had no comments (REP318) and WBC did not respond.

9.24 We do not accept the Applicant's point of view and consider that as detailed geological investigations are needed as part of submissions to the Competent Authority for approval under COMAH Regulations it is not an additional burden to provide them earlier in the process. To our minds, this would meet the detailed assessment required under NPS EN-4 to confirm that the sites selected (i.e. the two polygons) are suitable, which in our view means they have sufficient thickness of un-faulted suitable halite to contain the proposed volumes of gas to be stored.

9.25 We consider that such a modification to Requirement 6 is justified, but that its formulation needs to concentrate on the development aspects of the application, and avoid any overlap with the responsibilities of the Competent Authority under the COMAH Regulations, as the Applicant fairly points out. In this development context, paragraph 4.1.1(v) of NPS EN-1 also requires that we consider the balance of the adverse impacts (including any cumulative adverse impacts) against the benefits of the proposed development (taking into account the measures to avoid, reduce or compensate for the adverse impacts).

9.26 We propose therefore that the criterion to be met in the first instance is a minimum volume of gas storage on the basis that if the geology cannot support such a level, then it throws into question some elements of the surface infrastructure which the application contains, and particularly the size of the GCC. We consider this reflects the landscape disbenefits of the application on the eastern side of the Estuary concerning the impact of the GCC, together with the residual adverse impacts we noted in Chapters 5 and 6 such as disruption during construction, noise from extended working at the Wyre Estuary crossings and fears in the community of safety aspects.

9.27 We acknowledge that the draft Order provides for a working capacity of gas of up to 600 Mcm (i.e. without a lower limit) and therefore allows for much flexibility to develop the detailed design of cavern construction and indeed their number within the Preesall Halite deposit. But we consider that if only a materially lower volume of gas capacity can be achieved it may not give sufficient benefit to outweigh the adverse impacts of the project.

9.28 This leads to the question of the working volume of gas that the Applicant would have to demonstrate is achievable to outweigh the adverse impacts. This would be a minimum threshold of stored gas which is capable of being stored in the UGS caverns in the two polygons when the design parameters given in Requirement 6 are applied. We have adopted a figure of 300 Mcm for the minimum working capacity because we consider that a working capacity of less than this is materially different from the volume applied for (and in that eventuality it is likely that some of the surface infrastructure would be oversized.

9.29 We accept that there are elements of the infrastructure which are not in a linear relationship as the sizes are based on flow rates rather that stored gas volumes. But we are of the view that the GCC could be reduced in scale if it was only needed to handle a much smaller quantity of gas, and arguably its impact on the landscape would be reduced commensurately. If the minimum threshold cannot be met it would mean the development would not be permitted to proceed any further. This would ensure that the community and the environment would not be subjected to a large construction project, or subsequently disrupted by decommissioning when the infrastructure was removed, if the project was found not to be capable of achieving the quantities of gas storage and hence the benefits projected.

9.30 We appreciate that setting this level of the minimum threshold is to some extent arbitrary, but from our own calculations, we estimate that if the three scenarios set out in Chapter 5 (paragraphs 5.76 to 5.78) arose (i.e. the thickness of halite in the northern polygon is thinner and shallower near Cote Walls Farm, and that there may be faults in the southern polygon), then the indicative design would be reduced to approximately 300 Mcm working capacity (at 50% probability). If the faulting were found to extend into the northern polygon, then this volume might be even less. We consider therefore that a figure of 300 Mcm is a plausible minimum threshold for the purposes of the Order.

9.31 We consider that requiring a minimum threshold to be demonstrated still provides the Applicant with considerable flexibility. This is because it would be the first test to be met and if it is, then the development could be progressed as the Order proposes. If the Applicant can demonstrate that the two polygons can support the storage of at least 300 Mcm working capacity of gas then the justification for the scale of the supporting surface

infrastructure would have been made. It would then be up to the Applicant whether to construct up to 19 caverns to provide a working capacity of up to 600 Mcm of gas. The requirement would not oblige the Applicant to construct sufficient caverns to provide the minimum working capacity.

9.32 We recommend that if the Order is confirmed by the Secretary of State, the next immediate step would be to carry out a comprehensive geological survey of the two areas in which the caverns are proposed to be constructed. The purpose of this would be to demonstrate the top and bottom of the halite, the location of any faults and confirm the calculation of the volume of gas which can be stored.

9.33 We do not seek to prescribe the nature of such geological surveys. However, we understood from the Applicant at the IS hearing held on 19 September 2012, and the submissions made (REP243) that seismic-reflection surveys would be the most likely to provide a comprehensive grid of new geological information. As noted in paragraph 9.18 above, our understanding is that this nature of survey work is likely at an early stage in the Applicant's implementation programme in any event, though probably in a rather more piecemeal fashion than the comprehensive exercise we envisage. So we are of the view that this is more a matter of ensuring it is carried out at the outset of the development programme, rather than part way through it.

9.34 The results of such a survey, as far as the Applicant is concerned to confirm the validity of the projections of the 3D model, would be submitted to LCC for approval, and before the construction of any surface infrastructure begins. If LCC discharge the requirement, then the Applicant can proceed to implement the proposal. The detailed design of caverns and the submission of the pre-construction safety reports to the Competent Authority under the COMAH Regulations could progress in any event as provided for in Requirement 6.

9.35 We have considered whether this step should be one for WBC to approve, given that in every other instance it is the Borough Council designated as the relevant planning authority for the discharge of requirements. However, we are of the view that LCC is best placed to deal with these complex geological matters given its handling of the previous planning applications, and the expert advice it has sought from consultants to assist it in this regard. This is reinforced by the lack of any response from WBC to the consultation we carried out about this modification to the requirement (PD23).

9.36 We recommend therefore that two new sub paragraphs are inserted at the beginning of Requirement 6 in Schedule 9 of the Order as follows:

(1) No stage of the authorised development shall commence until

(a) a geological survey of the "area for cavern development" shown on the approved development plan with reference A-1000-030 Rev B has been carried out to confirm the top and bottom levels of the halite deposit and the presence of any faulting to a confidence limit of ±5 m;

(b) the working capacity of Work No 1A has been calculated taking account of the results of the geological survey and sub-paragraph 4 (a) to (h) of this requirement; and

(c) the results of the geological survey and the working capacity calculation have been submitted to and agreed by Lancashire County Council.

(2) No authorised development shall be carried out if the working capacity of Work No 1A as agreed by Lancashire County Council pursuant to sub-paragraph 1 (c) is less than 300 million standard cubic metres at the standard temperature and pressure.

(3) No more than 19 operational caverns with a total storage capacity of up to --- continue requirement 6 as drafted.

Proposals for Modifications to Other Requirements

9.37 Turning to noise requirements, as paragraphs 6.67 to 6.81 above explain, our concern about noise matters was to minimise the impact of construction noise on residential properties particularly at Harbour Village in Fleetwood, Kneps Farm Holiday Park and Flints Caravan Park. Version 5 of the DCO contained new sub clauses to Requirement 26 put forward by the Applicant which we consider negate the agreement to maximum noise levels achieved earlier in the examination. We consider therefore that Requirement 26 (8) and Requirement 26 (9) should be deleted, and references to these sub paragraphs in 26(6) and 26(7) should also be deleted.

9.38 We queried why the requirements provide for NE to be consulted by WBC prior to it agreeing details under Requirements 4, 9, 17, 18, 20, 26, 31 and 33 (PD26).This is at the request of NE to secure their approval to detailed measures necessary to avoid all mitigate significant effects on designated European sites. This is very much consistent with NE's response to the habitats issues raised by the application, as set out in Chapter 6 above.

9.39 Nonetheless, we consider that such detailed prescription is unnecessary as NE's primary interest is in landscape and ecological matters concerning designated European sites. We accept that NE's interests should be reflected in Requirements 4, 7, 8 and 9. We would expect WBC to consult NE and indeed any other relevant statutory body in the normal course of handling requests to

discharge requirements as appropriate. For these reasons, we propose that the specific need to consult NE should be removed from Requirements 17 (fencing) 18 (ground/surface water and pollution prevention, 20 (external lighting) 26 (control of noise during construction and maintenance, 31 and 33 (decommissioning).

9.40 Finally, WBC submitted a comment on the DCO at the end of the examination requesting that Article 41 of the DCO dealing with arbitration should be amended to require each party in an arbitration event to bear their own costs. The Council's argument was that it could face a situation of having to meet all the costs of an arbitration claim (REP281, Appendix 28). The Applicant sets out reasons why this amendment to Article 41 should not be made (REP281, section 4) and we agree. For this reason, we recommend no modification to Article 41.

The S106 Agreement

9.41 We have considered the scope of the completed s106 agreement dated 22 October 2012 between the parties. The matters it covers are summarised in Appendix A. Although the s106 agreement is a matter between the parties and not specifically for decision by us, we conclude it is satisfactory in both the range of matters that covers, and the relationship with the requirements in the Order.

Application for Hazardous Substances Consent

9.42 An application for deemed HSC was submitted alongside the Order (APP15). Although not a statutory requirement, this was the subject of public consultation in September 2011. We have carried out the appropriate consultations with the local planning authorities and sought the advice of the HSE about those matters to which the Secretary of State must have regard in accordance with Regulation 6 of the Infrastructure Planning (Decisions) Regulations 2010. No issues were raised by WBC, and the HSE advised that unless there are any changes to the application since it was first consulted, it is unlikely that HSE would advise against the proposal.

9.43 We posed the questions to WBC relating to the use of land in the vicinity of the application required by the Regulation (PD2, question 9/1) and WBC responded at REP200. We also requested the Applicant (PD25) to draft the proposed hazardous substances direction in conjunction with the HSE concerning any conditions it may wish to impose in order to meet the requirements of paragraph 6 of the Regulations concerning the current land-use position, particularly in the light of WBC's response at REP200. The Applicant responded on 12 October 2012 which sets out the content of a proposed direction and condition (REP322).

9.44 In the light of this, we are able to recommend to the Secretary of State that deemed HSC should be granted under s12 of the

Planning (Hazardous Substances) Act 1990 as amended by Schedule 2, paragraph 45 of the PA 2008.

10 OVERALL CONCLUSIONS AND RECOMMENDATION

10.1 In coming to our overall conclusions, we have had regard to the matters listed in s104 (2) of the Planning Act 2008 as amended.

10.2 We conclude for the reasons set out above that the proposal would accord with NPSs EN-1 and EN-4. Section 104(3) of the Planning Act 2008 requires that the application must be decided in accordance with any relevant national policy statement, unless one or more of the exceptions in s104 (4) to (8) applies. We have had regard to the LIRs submitted by LCC and WBC.

10.3 We have considered the application against the test set by s104 (7) of the Planning Act 2008 and conclude, for the reasons stated in this report, that subject to the modifications to the Order that we propose, the adverse impacts of the proposed development would not outweigh its benefits.

10.4 As to the other exceptions referred to in s104, we find no reason to suppose that deciding the application in accordance with the relevant national policy statements would either:

- lead to the United Kingdom being in breach of its international obligations
- lead to the Secretary of State being in breach of any duty imposed on the Secretary of State by or under any enactment.
- be otherwise unlawful by virtue of any enactment.

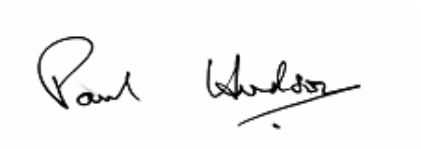
10.5 We have further considered the effect the proposal would have on all potentially affected European and Ramsar sites. With the safeguards that would be secured by the requirements we recommend should be attached to any Order that the Secretary of State is minded to make, our conclusion is that the integrity of none of the sites would be compromised.

10.6 We have also considered the request for powers of compulsory acquisition to be included in any Order that is made and conclude that there is a compelling case in the public interest for the grant of the compulsory acquisition powers sought by the Applicant in respect of the CA Land shown on the Land Plans (as amended).

RECOMMENDATION

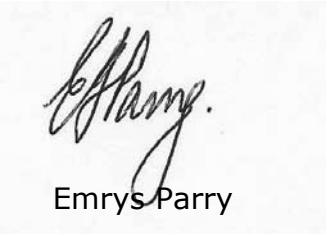
10.7 For the reasons set out above the Panel, as the Examining authority under s74 of the Planning Act 2008, concludes that subject to receipt of the certificate under s131(3)(b) referred to at paragraph 8.41, development consent for the Preesall underground gas storage facility should be granted and therefore recommends the Secretary of State to make an Order under s114 of the Planning Act 2008 in the form at Appendix D.

10.8 We also recommend the Secretary of State that deemed HSC should be granted under s12 of the Planning (Hazardous Substances) Act 1990 as amended by Schedule 2, paragraph 45 of the Planning Act 2008.



Paul Hudson

Libby Gawith



Emrys Parry

APPENDIX A – OBLIGATIONS

The S106 Agreement (REP281, Appendix 24)

Signatories

- Wyre Borough Council
- Halite Energy Group Limited
- Preesall Energy Services Ltd
- BNP Paribas SA
- Laminar Direct Capital Luxembourg S.A.R.L
- Ross and Catherine Hill Family Limited Partnership III

Summary of Provisions

Agreed on 18 October 2012 with the following provisions:

- maximising employment opportunities at the development for people living in the area of WBC and tendering of contracts for local goods and services
- continuation of a community liaison panel during between Halite, WBC, LCC, parish councils and residents
- prior to implementation of the development, WBC to approve and have a charge over a decommissioning scheme fund
- the purpose of the fund is to meet the costs if the development programme stalls for a lengthy period during construction, or Halite fails to implement an approved scheme for decommissioning in accordance with the requirements in the Order
- payment of fees by Halite to WBC to meet the costs of discharging actions included in the requirements in Schedule 9 of the Order
- payment by Halite to WBC meet the costs of monitoring the construction, operation and decommissioning of the development
- Halite to prepare a programme for monitoring and maintenance of existing brinewells, for approval by WBC following consultation with the HSE
- establishment of a separate fund to meet all the costs of compulsory acquisition authorised under the Order
- measures to ensure that during construction, vehicles entering and leaving the Preesall site use the new access road only, and HGVs comply with a routing plan, to preclude the use of Cemetery Lane.

Agreement with the Environment Agency (REP281, Appendix 26)

Signatories

- Halite Energy Group Limited
- Environment Agency

Summary of Provisions

Agreed on 18 October 2012 with the following provision:

Halite to meet the costs of maintaining the flood defences on the eastern side of the Estuary to the standards required by the EA should any damage to them occur consequent upon the construction of the pipelines under the Estuary between the seawater pump station in Fleetwood Fish Dock and the booster pump station, or the drilling works necessary for the creation of wellhead compounds 5 and 7.

Option Agreement with Blackpool Borough Council (REP308)

Signatories

- Halite Energy Group Limited
- Blackpool Borough Council

Summary of Provisions

Agreed on 22 October 2012 with the following provision:

Instead of using its compulsory acquisition powers (if granted), an easement is be granted in payment of an agreed consideration as a consequence of which the Applicant can construct a pipeline beneath the tramway to the rear of the properties in South Strand Fleetwood (adjacent to Rossall Square Station).

Unilateral Undertaking to the Knott End Golf Club (REP281, Appendix 7)

Signatory

- Halite Energy Group Limited

Summary of Provisions

Undertaking offered 22 October 2012 with the following provisions:

- Halite offer to limit the exercise of compulsory acquisition powers, if granted, over the surface of the golf course to the installation, and inspection etc of substance monitoring equipment.
- Halite will minimise disruption to the use of the golf course in terms of the location of substance monitoring equipment, and the times when site inspections are needed.
- Subsurface rights to be granted by the Order are not affected.

Rejected by Knott End Golf Club (REP281, Appendix 8)

APPENDIX B – THE EXAMINATION

The table below lists the main 'events' occurring during the examination and the main procedural decisions taken by the Panel.

DATE	EXAMINATION EVENT
24 April 2012	Preliminary Meeting
2 May 2012	Notice of procedural decision including confirmation of the examination timetable and first round of written questions from the Examining authority (ExA)
3 May 2012	Accompanied site visit to the application site
6 June 2012	Deadline for receipt of: • Written representations • Responses to written questions • Local Impact Report (s) (LIRs) • Statements of common ground (SoCG)
4 July 2012	Deadline for receipt of comments on: • Relevant and written representations • Responses to the ExA's questions • LIRs
18 July 2012	Issue of the ExA's second round of written questions
24 July 2012	Issue specific (IS) hearing to consider the drafting aspects of the draft Development Consent Order, and the proposed agreement between the Applicant and local planning authorities under s106 of the Town and Country Planning Act 1990
15 August 2012	Deadline for (i) responses to the ExA's second round of written questions and (ii) for interested parties to make representations to the ExA of the need for issue specific hearings

DATE	EXAMINATION EVENT
24 August 2012	Letter (Rule 17) from ExA to the Applicant and other specified IPs concerning the Conservation of Habitats and Species (Amendment) Regulations 2010
24 August 2012	Letter (Rule 17[31]) from ExA to the Applicant and other specified interested parties concerning the Conservation of Habitats and Species (Amendment) Regulations 2010
24 August 2012	ExA notification of the programme for further IS hearings
24 August 2012	Deadline for the receipt of comments on responses to the ExA's second round of written questions
24 August 2012	Deadline for i) interested parties to notify the ExA of their intention to be heard at an open floor (OF) hearing and ii) affected persons to notify the ExA of their wish to be heard at a compulsory acquisition (CA) hearing
31 August 2012	Letter from the ExA confirming dates and arrangements for the CA hearing
6 September 2012	Letter from the ExA confirming dates and arrangements for the OF hearing
6 September 2012	Letter from the ExA confirming the arrangements and agenda for the IS hearings on 18 and 19 September
18 September 2012	IS hearing on drafting of the DCO and requirements, the draft deemed marine licence and proposed s106 agreement
19 September 2012	IS hearing on the relationship between the Order and the COMAH Regulations
26 September 2012	Letter (Rule 17) from the ExA to the Applicant concerning Crown Land
26 September 2012	Further letter from the ExA setting out the agenda and arrangements for the CA hearing
28 September 2012	Letter (Rule 17) from the ExA to the Applicant and specified IPs inviting written representations about a proposed addition to Requirement 6 of the Order

[31] Rule 17 of The Infrastructure Planning (Examination Procedure) Rules 2010

DATE	EXAMINATION EVENT
2 October 2012	Letter from the ExA to the Applicant concerning proposed amendments to plans relating to the brine discharge outfall
3 October 2012	Letter (Rule 17) from ExA to the Applicant concerning Part 5 of the Book of Reference
3 October 2012	Letter (Rule 17) from the ExA to the Applicant concerning the draft Hazardous Substances Direction, preparation of the final draft DCO and a list of minor corrections to the Order
8 October 2012	Deadline for the submission of the final draft of the DCO and proposed s106 agreement
9 – 10 October 2012	CA hearing (one session only held on 9 October)
11 October 2012	Letter (Rule 17) from the ExA to the Applicant concerning information requested at the CA hearing on 9 October, and further to the final draft DCO
17 – 18 October 2012	OF hearing (six sessions held over two days)
19 October 2012	Accompanied site visit to the application site
26 October 2012	Notification from the ExA of the completion of the examination.

APPENDIX C – LIBRARY OF EXAMINATION DOCUMENTS

INDEX

APP **Application Documents –** documents submitted by the Applicant under s37 of the Planning Act 2008. Additional reference numbers (for example *1.1)* are those used by the Applicant.

PD **Project Documents –** documents relating to the project excluding the application documents. These include the procedural decisions made by the ExA. Additional reference numbers (for example *H6)* are those used by the Applicant.

REP **Representations and Submissions –** representations and submissions made to the Planning Inspectorate in accordance with the procedural deadlines specified in the examination timetable issued in the Rule 8 letter at the start of the examination. Also additional evidence or documents received during the examination outside these deadlines and accepted by the Panel. Additional reference numbers (for example *H1)* are those used by the Applicant.

DOC REF	TITLE								
APPLICATION DOCUMENTS									
Formalities									
APP1	*1.1* Covering Letter								
APP2	*1.2* Application Form								
APP3	*1.3* Register of Application Documents								
APP4	*1.6* Newspaper Notices Report								
APP5	*2.1* Application boundary plans					1	2		
APP6	*2.2* Land Plans					1	2		
APP7	*2.3* Works Plans								
APP8	*2.4* Access and Temporary Stopping Up Plans								
APP9	*2.5* Design drawings, sections and overview plans							1	2
	3	4	5	6	7	8	9	10	11
	12	13	14	15					
Reports									
APP10	*3.1* Consultation Report								
APP11	*3.1.1* Consultation Report Appendices					1	2	3	4

DOC REF	TITLE
APP12	*3.2* Information to Support a Habitats Regulations Assessment - Morecambe Bay SAC, Liverpool Bay SPA, Shell Flat and Lune Deep SAC
APP13	*3.3* Information to Support a Habitats Regulations Assessment - Morecambe Bay SPA and RAMSAR
APP14	*3.4* Statement of Engagement of Section 79(1) of the Environmental Protection Act 1990 Matters (Statutory Nuisances)
Applications	
APP15	*4.1* Application for deemed Hazardous Substance Consent (HSC)
APP16	*4.2* Application for deemed Marine Consent
Environmental Statement	
APP17	*5.1* Environmental Statement Vol 1A
APP18	*5.2* Environmental Statement Vol 1B - Technical Appendices
APP19	*5.3* Environmental Statement Vol 2A - Supporting Figures (Project Information)
APP20	*5.4* Environmental Statement Vol 2B - Supporting Figures (Environmental Information)
APP21	*5.5* Environmental Statement Non-Technical Summary
Development Consent Order	
APP22	*6.1* Development Consent Order
APP23	*6.2* Explanatory Memorandum
Compulsory Acquisition	
APP24	*7.1* Compulsory Acquisition Information- Statement of Reasons
APP25	*7.2* Compulsory Acquisition Information- Funding Statement
APP26	*7.3* Compulsory Acquisition Information- Book of Reference
Prescribed Information	
APP27	*8.1* Pipeline Statement
Other Supporting Documents	
APP28	*9.1.1* Planning & Sustainability Statement
APP29	*9.1.2* Design & Access Statement
APP30	*9.1.3* Project Overview
APP31	*9.1.4* Development Consent Obligations (Heads of Terms)
APP32	*9.1.5* Preesall Need Case
APP33	*9.1.6* Construction Report
APP34	*9.1.7* Health Impact Assessment Report (NIA)
APP35	*9.1.8* Health Impact Assessment Appendices (HIA)
APP36	*9.2.1* Legacy Brinewell Impact Assessment Report
APP37	*9.2.2* Geology Summary Report
APP38	*9.2.3* NTS Inter-connector at Preesall - Pipeline Subsidence Assessment Report
APP39	*9.2.4* Assessment of Brinewell 45 Incident (Subsurface Aspects) Report
APP40	*9.2.5* Proposed Drilling and Completion Programmes for the Preesall Underground Gas Storage Project
APP41	*9.2.6* Gas Interconnector Pipeline to the NTS Report
APP42	*9.2.7* Seismic Desk Study

DOC REF	TITLE
APP43	*9.3.1* Risk Assessment Report
APP44	*9.4.6* Technical Explanation of Development Consent Order Schedule (Authorised Development) and Work Plans
RELEVANT REPRESENTATIONS	
REP1	Peter Woodworth
REP2	Ray Hutchinson
REP3	Mrs Gemma Jackson
REP4	Mrs Joan Reilly
REP5	Mr Jeanne Kenneth Manning
REP6	D.S.Jackson
REP7	Peter Hulme
REP8	A Beniston
REP9	M. J. Jackson
REP10	Neville Mawdsley
REP11	Mrs. V. Parkinson
REP12	George J T Parkinson
REP13	Mr Ben Wallace MP
REP14	R.S. Jackson
REP15	Kenneth Wade
REP16	John William Croft
REP17	Paul Maynard MP
REP18	Eric Ollerenshaw OBE MP
REP19	David Evans
REP20	Peter Boden Haigh
REP21	John Bradbury
REP22	Ruth Bradbury
REP23	Jacqueline Budhwani
REP24	Fleetwood Civic Society
REP25	Mrs Rosemary Hogarth
REP26	Gordon Heald
REP27	Sarah Johnson
REP28	Over Wyre Action Group (OWAG)
REP29	Ms Lesley Maxwell
REP30	Robert Foden
REP31	Kevin Mellor
REP32	Cllr Lady Atkins
REP33	Anthony Coppin
REP34	South Ribble Borough Council
REP35	Dr MD Connaughton
REP36	Howard Phillips
REP37	Kenneth Davenport
REP38	John Holmes on behalf of Electricity North West Limited
REP39	Edward Hogarth
REP40	Gordon McCann
REP41	Bernard Postles

DOC REF	TITLE
REP42	Preesall Town Council
REP43	Derek Mayes
REP44	South Lakeland District Council
REP45	Persimmon Homes Lancashire
REP46	Mr Warren Hewitt
REP47	Fylde Coast Bridleways Association
REP48	Daniel Hamer on behalf of Knott End Golf Club
REP49	Associated British Ports
REP50	Mrs Judith Whitehorn
REP51	Jonathan Hall
REP52	Mrs Angela Lea
REP53	Mr B Bayley
REP54	Mavis Holden
REP55	Bernard Holden
REP56	Paul Hallam
REP57	Ribble Fisheries Consultative Association
REP58	John Laughton
REP59	Michael Loraine Tucker
REP60	Mrs Jenifer Phillips
REP61	Malcolm Clegg
REP62	Mrs. Janet Whitlow
REP63	Fleetwood Town Council
REP64	Joan Holden
REP65	Les Holden
REP66	Morecambe Bay Fishermens Association
REP67	Fylde Bird Club
REP68	Phil Dignan
REP69	Brian Paley
REP70	Blackpool Teaching Hospitals NHS Foundation Trust
REP71	AGC Chemicals Europe Ltd
REP72	North Western Inshore Fisheries and Conservation Authority
REP73	Lancashire Wildlife Trust
REP74	Hilda Dickinson
REP75	Mr Mark Hamer
REP76	Peter Ryan
REP77	Brian Simpson MEP
REP78	Catterall Parish Council
REP79	Kirkland Parish Council
REP80	Mr Thomas Parkinson
REP81	James Parkinson
REP82	Thornton Action Group
REP83	Mr Stanley Raby
REP84	Mrs Elaine Raby
REP85	Laura Green on behalf of Wyre Power Limited
REP86	Pilling Parish Council
REP87	Stalmine-with-Staynall Parish Council
REP88	Lancashire Association Of Local Councils Wyre Area Committee

DOC REF	TITLE
REP89	Ian Mulroy
REP90	Marilyn Mulroy
REP91	Hodder Consultative
REP92	Protect Wyre Group
REP93	Fleetwood Chamber of Trade and Commerce
REP94	Mike Sanderson Electricals
REP95	Susan Mary Tucker
REP96	A L Clempson
REP97	Chris Pye
REP98	Health Protection Agency
REP99	Walter McCann
REP100	B & M Salvage Fuels Ltd
REP101	Ruth McCann
REP102	CPRE Lancashire
REP103	Terrance Bates
REP104	Samuel Reilly
REP105	April McCann
REP106	Philip Moore
REP107	Ann Moore
REP108	Andrew Hurst on behalf of Lune & Wyre Fisheries Association
REP109	Elizabeth Brewer on behalf of WR & CM Lawrenson
REP110	J Young
REP111	Hambleton Parish Council
REP112	The Environment Agency
REP113	Vera Swarbrick
REP114	Howard Phillips on behalf of Wilfred Marsh
REP115	James Swarbrick
REP116	Joseph Cooper
REP117	NHS North Lancashire
REP118	Reverend John Squires
REP119	Gordon Marsden MP
REP120	Iain Michael Johnstone
REP121	Friends of the Earth
REP122	John Howard Wasp on behalf of BRB (Residuary) Ltd
REP123	Biffin Ltd
REP124	NPL Estates Ltd
REP125	Mrs Lynn Squires
REP126	Thornton Facilities Management Ltd
REP127	Sonja Moss
REP128	Vinnolit Hillhouse Ltd
REP129	Alan Moss
REP130	Philip Anthony Mitchell
REP131	Highways Agency
REP132	Natural England
REP133	Ernest Woodward
REP134	Wyresdale Anglers
REP135	Central Lancashire Friends of the Earth

DOC REF	TITLE
REP136	Kenneth Penswick
REP137	John Baines
REP138	M Jeynes
REP139	Lesley Jeynes
REP140	Averil Booth
REP141	Derek Booth
REP142	David Barker
REP143	D Myerscough
REP144	Marlene Vintner
REP145	Robert Wilkins
REP146	Mr Roy Pickup
REP147	Christine Alston
REP148	Mr Gerald Carter
REP149	Lynn Carter
REP150	Dorothy Hillman
REP151	Morecambe and Heysham Fisherman's Association
REP152	Maritime & Coastguard Agency
REP153	Ministry Of Defence
REP154	National Grid
REP155	Wyre Borough Council (Estates Dept)
REP156	Wyre Borough Council - Planning Dept
REP157	Lancashire County Council
REP158	Marine Management Organisation
WRITTEN REPRESENTATIONS	
REP159	Blackpool Transport Services Limited (Trevor Roberts)
REP160	Paul Maynard MP
REP161	Ruth Bradbury
REP162	John Bradbury
REP163	Kenneth Penswick
REP164	Mr Roy Pickup
REP165	Hilda Dickinson
REP166	D.S, M.J and R.S Jackson
REP167	Mark Hamer
REP168	Mr D Barker
REP169	Mrs D Hillman
REP170	Protect Wyre Group (Ian Mulroy)
	Appendix / Part 1 / Part 2 / Part 3 / Part 4
REP171	Rosmary Hogarth
REP172	Joseph Cooper
REP173	Rossall School (Micheal Watts)
REP174	Eric Ollerenshaw MP
REP175	North Western Inshore Fisheries and Conservation Authority (Mandy Knott)
REP176	Iain Michael Johnstone
REP177	The Environment Agency (Amy Heys)

DOC REF	TITLE	
REP178	Ben Wallace MP	
REP179	Stalmine with Staynall Parish Council (Peter Swarbrick)	
REP180	Marilyn Mulroy	
REP181	Derek Booth	
REP182	Averil Booth	
REP183	George Parkinson	
REP184	Ribble Fisheries Consultative Association (John Whitham)	
REP185	Ian Mulroy	
REP186	Ann Moore	
REP187	Philip Moore	
REP188	Brian Paley	
REP189	Stan Raby	
REP190	Elaine Raby	
REP191	Marine Management Organisation (Laura Jade Calvert)	
REP192	Natural England (Chris Edwards)	
LOCAL IMPACT REPORTS		
REP193	Lancashire County Council (Stuart Perigo)	
REP194	Wyre Borough Council (David Thow)	
COMMENTS ON RELEVANT AND WRITTEN REPRESENTATIONS, AND LOCAL IMPACT REPORTS		
REP195	Knott End Golf Club (The Board of Directors)	
REP196	D.S, M.J and R.S Jackson	
REP197	Protect Wyre Group (Ian Mulroy)	
REP198	*[H3]* Halite Energy (BLP)	Corrections Sheet
REP199	*[H18]* Halite Energy (BLP)	
RESPONSES TO THE PANEL'S FIRST ROUND OF QUESTIONS		
REP200	Wyre Borough Council (David Thow)	
REP201	Health & Safety Executive (Ian Sharrock)	
REP202	Natural England (Chris Edwards)	
REP203	*[H1]* Halite Energy (BLP)	
RESPONSES TO THE PANEL'S SECOND ROUND OF QUESTIONS		
REP204	Lancashire County Council (Stuart Perigo)	
REP205	Philip Anthony Mitchell	
REP206	Protect Wyre Group (Ian Mulroy)	
REP207	*[H5]* Halite Energy (BLP)	
REQUESTS FOR HEARINGS		
Issue Specific (IS)		
REP208	Royal Mail Group (Dan Parry-Jones)	

DOC REF	TITLE	
Open Floor (OF)		
REP209	Ben Wallace MP	
REP210	Eric Ollerenshaw MP	
REP211	Philip Anthony Mitchell	
Compulsory Acquisition (CA)		
REP212	George Parkinson	
REP213	Elaine Raby	
REP214	National Grid (Field Fisher Waterhouse)	
REP215	Blackpool and Fylde College (DLA Piper)	
REP216	Knott End Golf Club	
REP217	Reference not assigned	
COMMENTS ON RESPONSES TO THE SECOND ROUND OF QUESTIONS		
REP218	*[H8]* Halite Energy (BLP)	Appendix
SUBMISSIONS TO HEARINGS		
First Issue Specific Hearing - Development Consent Order and Requirements - 24 July 2012		
REP219	Bolton Council (Jon Berry)	
REP220	Joseph Cooper	
REP221	Blackpool Transport (Debbie Vallance)	
REP222	Knott End Golf Club (Louise Freeman)	
REP223	R Pickup	
REP224	D. S. Jackson, M. J. Jackson, R. S. Jackson	
REP225	Environment Agency (Amy Heys)	
REP226	Mark Hamer (Edward Greenwood)	
REP227	D Hillman	
REP228	Protect Wyre Group (Ian Mulroy)	
REP229	Wyre BC (Rowena Gornall)	
REP230	Natural England (Janet Belfield)	
Second Issue Specific Hearing - Development Consent Order and Requirements - 18 September 2012		
REP231	D. S. Jackson, M. J. Jackson, R. S. Jackson	
REP232	Marine Management Organisation (Laura Jade Calvert	
REP233	Wyre BC (David Thow)	
REP234	Knott End Golf Club (Louise Freeman)	
REP235	John Bradbury	
REP236	Natural England (Janet Bellfield)	
REP237	Iain Michael Johnstone	
REP238	Wyre Power (RSK)	
Third Issue Specific Hearing - Interactions with COMAH Regime - 19 September 2012		
REP239	D. S. Jackson, M. J. Jackson, R. S. Jackson	
REP240	Knott End Golf Club (Louise Freeman)	
REP241	Wyre Power (RSK)	

DOC REF	TITLE	
REP242	Health & Safety Executive (Giles Hyder)	
REP243	*[H11][H12][H13][H14]* Halite Energy (BLP)	
REP244	Health and Saftey Executive (Giles Hyder)	
REP245	*[H15]* Halite Energy (BLP)	
Compulsory Acquisition Hearing – 9 October 2012		
REP246	National Grid (John Bowman)	
REP247	Wyre BC (Rowena Gornall)	
REP248	D. S. Jackson, M. J. Jackson, R. S. Jackson	
REP249	Knott End Golf Club	
REP250	Blackpool BC (AVC White)	
REP251	Blackpool Transport	
REP252	Blackpool BC	
REP253	Blackpool College	
REP254	E & S Raby	
REP255	James Houghton	
REP256	Knott End Golf Club	
REP257	*[H21]* Halite Energy (BLP)	
REP258	George Parkinson	
REP259	E & S Raby	
REP260	Knott End Golf Club (Len Sixsmith)	
REP261	Blackpool BC	
REP262	Blackpool Transport	
REP263	Protect Wyre Group (Ian Mulroy)	
Open Floor Hearing – 17 and 18 October 2012		
REP264	Speaking Notes of Malcolm Clegg for Protect Wyre Group	
REP265	Speaking Notes of Ian Mulroy for Protect Wyre Group	
REP266	Speaking Notes of Howard Phillips for Protect Wyre Group	
REP267	Speaking Notes of Jeff Draper for Wyre Energy	
REP268	Submission from Protect Wyre Group (Ian Mulroy)	
REP269	Overlay Plan Submitted by Halite Energy	
REP270	Speaking Notes of Ben Wallace MP	
REP271	Speaking Notes of Eric Ollerenshaw MP	
REP272	Speaking Notes of Cllr June Jackson	
REP273	Speaking Notes of Michael Tucker	
REP274	Speaking Notes of Roy Pickup	
REP275	Submission from Ben Wallace MP	
REP276	*[H24]* Submission from Halite Energy	
DRAFT DEVELOPMENT CONSENT ORDERS AND RELATED DOCUMENTS		
REP277	*[H4]* Halite Energy (BLP) - 4/7/2012	
REP278	*[H9]* Halite Energy (BLP) - 30/8/2012	Covering Note
REP279	*[H10]*Halite Energy (BLP) - 12/9/2012	
REP280	*[H20]* Halite Energy (BLP) - 5/10/2012	

DOC REF	TITLE
REP281	*[H25]* Halite Energy (BLP) - 19/10/2012
LATE COMPULSORY ACQUISITION SUBMISSIONS	
REP282	A Whitlow
REP283	Halite Energy (BLP)
OTHER SUBMISSIONS ACCEPTED BY THE PANEL	
REP284	Submission of 09/05/2012 made by D J Sherman
REP285	Submission of 13/05/2012 made by Janice Paine
REP286	Submission of 28/05/2012 made by Cllr Vivian Taylor
REP287	Submission of 02/06/2012 made by Janet M. McMullen
REP288	Submission of 27/06/2012 made by Knott End Golf Club
REP289	Submission of 25/07/2012 made by Knott End Golf Club
REP290	Submission of 29/07/2012 made by Associated British Ports (Martin O'Hara)
REP291	Submission of 30/07/2012 made by Fulcrum Pipelines Limited
REP292	Submission of 06/08/2012 made by Knott End Golf Club
REP293	Submission of 16/08/2012 made by Protect Wyre Group (Ian Mulroy)
REP294	Submission of 20/08/2012 made by Electricity North West
REP295	Submission of 20/08/2012 made by Ben Wallace MP
REP296	Submission of 28/08/2012 made by Independent Pipelines, Independent Power Networks, Quadrant Pipeline
REP297	Submission of 30/08/2012 made by the Environment Agency
REP298	Submission of 12/09/2012 made by GTC/ENC (Fiona Gittins)
REP299	Submission of 13/09/2012 made by Mark Hamer (Edward Greenwood)
REP300	Submission of 05/10/2012 made by K Penswick
REP301	Submission of 12/10/2012 made by Protect Wyre Group (Ian Mulroy)
REP302	Submission of 21/10/2012 made by Rosemary Hogarth
REP303	Submission of 21/10/2012 made by Michael Tucker
REP304	Submission of 21/10/2012 made by Alice Horner
REP305	Submission of 22/10/2012 made by D Jackson
REP306	Submission of 24/10/2012 made by Mark Hamer (Edward Greenwood)
REP307	Submission of 24/10/2012 made by Protect Wyre Group (Ian Mulroy)
REP308	Submission of 24/10/2012 made by Halite Energy / Blackpool BC (BLP)
REP309	Submission of 24/10/2012 made by Halite Energy (BLP)
PROCEDURAL DOCUMENTS FROM THE PANEL	
PD1	23/12/2011 - Acceptance of the Application

DOC REF	TITLE
PD2	19/03/2012 - Invitation to Preliminary Meeting and Initial Assessment of Principal Issues
PD3	02/05/2012 - Examination Timetable and First Written Questions
PD4	04/07/2012 - Notice of 24 July IS Hearing
PD5	13/07/2012 - Agenda for 24 July IS Hearing
PD6	18/07/2012 - Further (Second) Written Questions
PD7	27/07/2012 - Notice of Cancellation of 22 August IS Hearing
PD8	02/08/2012 - Letter to Halite regarding wellhead plans
PD9	23/08/2012 - Notice of 18 and 19 September IS Hearings
PD10	31/08/2012 - Notice of OF and CA hearings
PD11	06/09/2012 - Venues for OF hearings
PD12	06/09/2012 - Agenda for 18 and 19 September IS Hearings
PD13	26/09/2012 - Agenda for CA Hearing
PD14	02/10/2012 - Letter Accepting Proposed Changes to Outfall Pipeline
PD15	26/10/2012 - Close of Examination
CORRESPONDENCE FROM THE APPLICANT	
PD16	18/04/2012 - Letter from BLP regarding S56 advertisements
PD17	*[H6][H7]*15/08/2012 - Letter from BLP seeking to amend outfall pipeline
PD18	23/08/2012 - Letter from BLP regarding request for hearing
FURTHER INFORMATION REQUESTED BY THE PANEL	
PD19	02/08/2012 - Request for Comments (CA)
PD20	24/08/2012 - Request for Comments (Habitats)
REP310	Marine Management Organisation (Laura Jade Calvert)
REP311	Lancashire Wildlife Trust (Kim Wisdom)
REP312	Natural England (Janet Belfield)
REP313	Halite Energy (BLP)
PD21	30/08/2012 - Request for Comments (Outfall Amendments)
REP314	Halite Energy (BLP)
REP315	*[H16]* Halite Energy (BLP)
PD22	26/09/2012 - Request for Comments (Crown Land)
REP316	*[H17]* Halite Energy (BLP)
PD23	28/09/2012 - Request for Comments (Reg 6)
REP317	Health & Safety Executive
REP318	Environment Agency
REP319	*[H23]* Halite Energy (BLP)
REP320	Lancashire County Council
PD24	03/10/2012 - Request for Comments (CA)
REP321	*[H19]*Halite Energy (BLP)
PD25	03/10/2012 - Request for Comments (ISH Follow up)
REP322	*[H22]*Halite Energy (BLP)

DOC REF	TITLE
PD26	11/10/2012 - Request for Comments (CAH Follow up)
REP323	Environment Agency (Letter of Comfort - Bats)
REP324	Environment Agency (Letter of Comfort - Newts)
STATEMENTS OF COMMON GROUND	
SoCG	*[H2]* List of Statements of Common Ground
SoCG1	Geology (Halite Energy and LCC)
SoCG1A	Geology (Halite Energy and WBC Endorsement)
SoCG2	Ecology and Habitats Regulations Assessment (Halite Energy and NE)
SoCG3	Draft DCO (Halite Energy and LCC)
SoCG4	LEMSP (Halite Energy and WBC)
SoCG5	LEMSP (Halite Energy and LCC)
SoCG5A	LEMSP (Halite Energy and WBC Endorsement)
SoCG6	Transport and Access (Halite Energy and LCC)
SoCG6A	Transport and Access (Halite Energy and WBC Endorsement)
SoCG7	Noise and Vibration (Halite Energy and WBC)
SoCG8	Application for deemed Hazardous Substances Consent (Halite Energy and HSE)
SoCG8A	Application for deemed Hazardous Substances Consent (Halite Energy and WBC Endorsement)
SoCG9	Reference not assigned
SoCG10	Deemed Marine Licence (Halite Energy and MMO)
SoCG11	Ecology (Halite Energy and EA)
SoCG12	Ecology (Halite Energy and RSPB)
SoCG13	Ecology (Halite Energy and LWT)
SoCG14	Ecology (Halite Energy and LCC)
SoCG14A	Ecology (Halite Energy and WBC Endorsement)
SoCG15	Safety and risk above ground (Halite Energy and LCC)
SoCG15A	Safety and risk above ground (Halite Energy and WBC Endorsement)
SoCG16	Planning History (Halite Energy and WBC)
SoCG17	Relevant Planning History (Halite Energy and LCC)
SoCG18	Development Planning Policy (Halite Energy and WBC)
SoCG19	Development Planning Policy (Halite Energy and LCC)
SoCG20	Landscape (Halite Energy and LCC)
SoCG20A	Landscape (Halite Energy and WBC Endorsement)
SoCG21	Landscape (Halite Energy and NE)
SoCG22	Water quality, sea defences and flood risk (Halite Energy and EA)
SoCG23	Marine water quality (Halite Energy and MMO)
SoCG24	Transport and Access (Halite Energy and Highways Agency)
SoCG25	Health Impact (Halite Energy and NHS North Lancashire)
SoCG26	Sustainable use of salt (Halite Energy and WBC)
SoCG27	Use of Salt (Halite Energy and LCC)
SoCG28	Land Use (Halite Energy and WBC)

DOC REF	TITLE
SoCG29	Land Use (Halite Energy and LCC)
SoCG30	Archaeology and built heritage (Halite Energy and LCC)
SoCG30A	Archaeology and built heritage (Halite Energy and WBC Endorsement)
SoCG31	Archaeology and Built Heritage (Halite Energy and EH (Marine Planning Unit))
SoCG32	Archaeology and Built Heritage (Halite Energy and WBC)
SoCG33	Air Quality (Halite Energy and WBC)
SoCG34	Air Quality (Halite Energy and NE)
SoCG35	LEMSP (Halite Energy and NE)
SoCG36	LEMSP (Halite Energy and EA)
SoCG37	LEMSP (Halite Energy and RSPB)
SoCG38	LEMSP (Halite Energy and LWT)
SoCG39	Tourism Economic Development (Halite Energy and WBC)
SoCG40	Tourism and economic development (Halite Energy and LCC)
SoCG41	Civil and Military Aviation (Halite Energy and LCC)
SoCG42	Civil and Military Aviation (Halite Energy and WBC)
SoCG43	Marine and estuarial ecology (Halite Energy and MMO)
SoCG44	United Utilities Infrastructure (Halite Energy and United Utilities)

Parties Making Oral Representations at Hearings

PARTIES MAKING ORAL REPRESENTATIONS AT HEARINGS
MEETINGS
Preliminary Meeting- 24 April 2012
Halite Energy (Michael Humphries QC)
Wyre Borough Council (David Thow)
Lancashire County Council (Stuart Perigo and Ian Blinkho)
Stalmine with Staynall Parish Council (June Jackson)
Roy Pickup
Protect Wyre Group (Ian Mulroy and Howard Phillips)
Hilda Dickinson
Mandy Knott
First Issue Specific Hearing (DCO) 24 July 2012
Halite Energy (Michael Humphries QC and Jeremy Pike)
Environment Agency (Jeremy Pickup)
Marine Management Organisation (Jonathan Peters and Richard Moles)
Protect Wyre Group (Ian Mulroy and Howard Phillips)
Wyre Borough Council (Vicky Westhead)
Lancashire County Council (Stuart Perigo)
Second Issue Specific Hearing (DCO) 18 September 2012
Halite Energy (Michael Humphries QC)
Knott End Golf Club (Derek Hughes)
Marine Management Organisation (Jonathan Peters and Richard Moles)
Environment Agency (Amy Heys)
Blackpool Borough Council (Ruth Stockley and Carmel White)
Wyre Borough Council (Sarah Reid and Vicky Westhead)
Lancashire County Council (Stuart Perigo and Claire Hallwood)
Natural England (Janet Belfield)
Third Issue Specific Hearing (COMAH) 19 September 2012
Halite Energy (Michael Humphries QC and Brian Stanley - Safety and Risk Director)
Halite Energy (Colin Harding - Divisional Director for Geology and Nigel Harrison - Associate Director for Safety – Mott MacDonald)
Environment Agency (Kevin Lodge and Amy Heys)
Protect Wyre Group (Howard Phillips)
Lancashire County Council (Stuart Perigo)
COMPULSORY ACQUISITION HEARING
Compulsory Acquisition Hearing 9 October 2012
Halite Energy (Michael Humphries QC and William Bashall)

PARTIES MAKING ORAL REPRESENTATIONS AT HEARINGS
Blackpool Borough Council (spoke only to withdraw objection)
Knott End Golf Club (Mr Sixsmith)
Mr Parkinson
Mr E and Mrs S Raby
Mr Houghton
OPEN FLOOR HEARING
17 October 2012
Morning: Fleetwood
Wilfred Marsh
David Entwistle
Afternoon: Fleetwood
(None)
Evening: Fleetwood
Malcolm Clegg
Howard Phillips
Ian Mulroy
Geoff Draper
David Aston
David Entwistle
18 October 2012
Morning: Stalmine
(None)
Afternoon: Stalmine
Mike Tucker
Roy Pickup
Evening: Stalmine
June Jackson (Stalmine with Staynall Parish Council)
Ben Wallace MP
Eric Ollerenshaw MP
Paul Maynard MP
Janet Whitlow
Mark Hamer
David Evans
Ken Jenson
Jeremy Pike (Halite Energy)

APPENDIX D – THE DEVELOPMENT CONSENT ORDER

STATUTORY INSTRUMENT

201[●] No. [●]

INFRASTRUCTURE PLANNING

ENERGY

The [Draft] Preesall (Underground Gas Storage Facility) Development Consent Order 201[●]

Made - - - - *[●] 201[●]*

Coming into force - - *[●] 201[●]*

CONTENTS

SCHEDULES

An application was made to the former Infrastructure Planning Commission in accordance with section 37 of the Planning Act 2008(**a**) for an order under sections 37, 114, 115, 120, 121, 122, 123 and 142 of that Act.

The Examining authority (**b**) appointed by the former Infrastructure Planning Commission examined the application in accordance with Chapter 4 of Part 6 of that Act(**c**) and made a recommendation under section 74 of that Act(**d**) that the application should be granted.

Accordingly, the Secretary of State, having the function of deciding the application(**e**), in exercise of the powers conferred by sections 103, 114, 115, 120, 121, 122, 123 and 142 of that Act, makes the following Order—

PART 1

PRELIMINARY

Citation and Commencement

1. This Order may be cited as the Preesall (Underground Gas Storage Facility) Development Consent Order 201[●] and shall come into force on [●] 201[●].

Interpretation

2.—(1) In this Order—

"the 1961 Act" means the Land Compensation Act 1961(**f**);

"the 1965 Act" means the Compulsory Purchase Act 1965(**g**);

"the 1980 Act" means the Highways Act 1980(**h**);

"the 1984 Act" means the Road Traffic Regulation Act 1984(**i**);

"the 1990 Act" means the Town and Country Planning Act 1990(**j**);

"the 1991 Act" means the New Roads and Street Works Act 1991(**k**);

"the 2008 Act" means the Planning Act 2008;

"access and temporary stopping up plans" means the plans certified as the access and temporary stopping up plans by the Secretary of State for the purposes of this Order;

"authorised development" means the development and associated development described in Schedule 1 (authorised development) and any other development authorised by this Order, which is development within the meaning of section 32 of the 2008 Act;

"Blackpool Borough Council" has the same meaning as in Part 3 of Schedule 8 (protective provisions);

(**a**) 2008 c.29; section 37 is amended by the Localism Act 2011 (c. 20) s.137 and Sch. 13, para.5(2), (3).
(**b**) See section 86 of the Planning Act 2008 as amended by the Localism Act 2011, Sch. 13 para.37.
(**c**) The provisions of that Part are amended by the Localism Act 2011.
(**d**) Section 74 is amended by the Localism Act 2011, Sch.13 para.29(3) and Sch. 25 para.1.
(**e**) See section 103 of the Planning Act 2008 as amended by the Localism Act 2011 Schs. 13, 25.
(**f**) 1961 c.33.
(**g**) 1965 c.56.
(**h**) 1980 c.66.
(**i**) 1984 c. 27.
(**j**) 1990 c.8.
(**k**) 1991 c.22.

"the book of reference" means the book of reference certified by the Secretary of State as the book of reference for the purposes of this Order;

"building" includes any structure or erection or any part of a building, structure or erection;

"carriageway" has the same meaning as in the 1980 Act;

"compulsory acquisition notice" means a notice served in accordance with section 134 of the 2008 Act;

"gas" has the same meaning as natural gas in section 235 (interpretation) of the 2008 Act;

"Halite Energy Group" means Halite Energy Group Limited (company number 04145789) whose registered office is at Unit 5, St Georges Park, Kirkham, Lancashire, PR4 2EF;

"highway" and "highway authority" have the same meaning as in the 1980 Act;

"existing brine cavern" means any brine cavern which existed prior to the making of this Order;

"existing brine well" means any brine well which existed prior to the making of this Order;

"the land plans" means the plans certified as the land plans by the Secretary of State for the purposes of this Order;

"maintain" includes maintain, inspect, repair, adjust, alter, remove, clear, refurbish, reconstruct, decommission, demolish, replace or improve the authorised development and "maintaining" and "maintenance" shall be construed accordingly;

"operational cavern" means an underground cavern created pursuant to the powers contained in this Order and brought into operation for the storage of gas;

"Order land" means the land shown on the land plans which is within the limits of land to be acquired and described in the book of reference;

"the Order limits" means the limits shown on the works plans within which the authorised development may be carried out;

"owner", in relation to land, has the same meaning as in section 7 of the Acquisition of Land Act 1981(**a**);

"Preesall halite deposit" means the member of the Kirkham Mudstone formation being a deposit characterised by halite with varying marl content and localised mudstone interbeds, more particularly described and shown as the Preesall Salt on the Geological Survey of Great Britain (England and Wales) Sheet 66, 1:50,000 Series, Solid and Drift Edition, of the British Geological Survey Classification entitled "The Geology of the country around Blackpool" dated 1990 and further described in the accompanying British Geological Survey Sheet Memoir 66;

"relevant planning authority" means Wyre Borough Council and any successors to its function as planning authority for the area in which the land to which the provisions of this Order apply;

"solution mining" means the pumping of a leaching solution into the Preesall halite deposit, such that the leaching solution dissolves the halite, thereby forming a void, and is then pumped back to surface as a halite saturated brine;

the "standard temperature and pressure" means 15 degrees centigrade and 1 bar atmospheric;

"statutory undertaker" means any person falling within section 127(8), 128(5) or 129(2) of the 2008 Act;

"street" means a street within the meaning of section 48 of the 1991 Act(**b**), together with land on the verge of a street or between two carriageways, and includes part of a street;

"street authority", in relation to a street, has the same meaning as in Part 3 of the 1991 Act;

"the tribunal" means the Lands Chamber of the Upper Tribunal;

(**a**) 1981 c.67; the definition of "owner" is amended by the Planning and Compensation Act 1991 c. 34 Sch.15(I) para.9.
(**b**) Section 48 is amended by the Local Transport Act 2008 c. 26 Pt 7 s.124(2).

"UK marine area" has the same meaning as in section 42 of the Marine and Coastal Access Act 2009(**a**);

"undertaker" means the person who has the benefit of this Order in accordance with Articles 7 and 8 of this Order;

"watercourse" includes all rivers, streams, ditches, drains, canals, cuts, culverts, dykes, sluices, sewers and passages through which water flows except a public sewer or drain; and

"the works plans" means the plans certified as the works plans by the Secretary of State for the purposes of this Order.

(2) Save for the definition of the "undertaker", the definitions in paragraph 1 shall not apply to Schedule 7 (deemed marine licence under Part 4 of the Marine and Coastal Access Act 2009).

(3) The definition of the "undertaker" in paragraph 1 shall not apply to Schedule 8 (protective provisions).

(4) References in this Order to rights over land include references to rights to do or to place and maintain, anything in, on or under land or in the air-space above its surface.

(5) All distances, directions and lengths referred to in this Order and any document referred to in this Order are approximate and distances between points on a work comprised in the authorised development shall be taken to be measured along that work.

PART 2

WORKS PROVISIONS

Principal powers

Development consent etc. granted by the Order

3. Subject to the provisions of this Order and to the requirements in Schedule 9 (requirements) the undertaker is granted—

(a) development consent for the authorised development to be carried out within the Order limits; and

(b) consent to use the authorised development for the purpose for which it is designed including use of the cavities to be created for the underground storage of gas.

Maintenance of authorised development

4.—(1) The undertaker may at any time maintain the authorised development, except to the extent that this Order, or an agreement made under this Order, provides otherwise and may enter on any land within the Order limits if such entrance is reasonably required for the purpose of maintaining the authorised development.

(2) Subject to paragraph (3) and to the requirements in Schedule 9 (requirements), the power to maintain the authorised development includes the power to carry out and maintain such of the following works as may be necessary or expedient for the purposes of, or for purposes ancillary to, the construction or operation of the authorised development, namely—

(a) works to alter the position of apparatus below ground level, including mains, sewers, drains and cables including below ground structures associated with that apparatus within the Order limits;

(b) works of decommissioning and demolition.

(3) Paragraph (2) shall only authorise the carrying out or maintenance of works within the Order limits.

(**a**) 2009 c.23.

Limits of Deviation

5. In constructing or maintaining the authorised development, the undertaker may deviate laterally from the lines or situations of the authorised development shown on the works plans to the extent of the limits of deviation shown on those plans.

Defence to proceedings in respect of statutory nuisance

6.—(1) Where proceedings are brought under section 82(1) of the Environmental Protection Act 1990(**a**) (summary proceedings by person aggrieved by statutory nuisance) in relation to a nuisance falling within paragraph (g) of section 79(1) of that Act (noise emitted from premises so as to be prejudicial to health or a nuisance) no order shall be made, and no fine may be imposed, under section 82(2) of that Act if—

(a) the defendant shows that the nuisance—

(i) relates to premises used by the undertaker for the purposes of or in connection with the construction or maintenance of the authorised development and that the nuisance is attributable to the carrying out of the authorised development in accordance with a notice served under section 60 (control of noise on construction site), or a consent given under section 61 (prior consent for work on construction site) or 65 (noise exceeding registered level), of the Control of Pollution Act 1974(**b**); or

(ii) is a consequence of the construction or maintenance of the authorised development and that it cannot reasonably be avoided; or

(b) the defendant shows that the nuisance—

(i) relates to premises used by the undertaker for the purposes of or in connection with the use of the authorised development and that the nuisance is attributable to the use of the authorised development which is being used in accordance with a scheme for noise management approved by the relevant planning authority as described in paragraph 27 of Schedule 9 (requirements); or

(ii) is a consequence of the use of the authorised development and that it cannot reasonably be avoided.

(2) Section 61(9) (consent for work on construction site to include statement that it does not of itself constitute a defence to proceedings under section 82 of the Environmental Protection Act 1990) of the Control of Pollution Act 1974 and section 65(8) of that Act (corresponding provision in relation to consent for registered noise level to be exceeded), shall not apply where the consent relates to the use of premises by the undertaker for the purposes of or in connection with the construction or maintenance of the authorised development.

Benefit of order

Benefit of Order

7. Subject to article 8 (transfer of benefit of Order), the provisions of this Order shall have effect solely for the benefit of Halite Energy Group.

Transfer of benefit of Order

8.—(1) The undertaker may with the consent of the Secretary of State—

(a) transfer to another person ("the transferee") any or all of the benefit of the provisions of this Order and such related rights as may be agreed between the undertaker and the transferee; or

(**a**) 1990 c.43. section 82 is amended by section 5 of the Noise and Statutory Nuisance Act 1993 (c.40), Schedule 17 to the Environment Act 1995 (c.25) and section 103 of the Clean Neighbourhoods and Environment Act 2005 (c.16).

(**b**) 1974 c.40. sections 61 and 65 are amended by section 133 of the Building Act 1984 (c.55), Schedule 24 to the Environment Act 1995 (c.25) and section 162 of, and Schedule 15 to, the Environmental Protection Act 1990 (c.43); there are other amendments not relevant to this Order.

(b) grant to another person ("the lessee") for a period agreed between the undertaker and the lessee any or all of the benefit of the provisions of this Order and such related statutory rights as may be so agreed.

(2) Where an agreement has been made in accordance with paragraph (1) references in this Order to the undertaker shall include references to the transferee or the lessee.

(3) The exercise by a person of any benefits or rights conferred in accordance with any transfer or grant under paragraph (1) shall be subject to the same restrictions, liabilities and obligations as would apply under this Order if those benefits or rights were exercised by Halite Energy Group.

Streets

Street works

9.—(1) The undertaker may, for the purposes of the authorised development, enter on so much of any of the streets specified in Schedule 2 (streets subject to street works) as is within the Order limits and may—

(a) break up or open the street, or any sewer, drain or tunnel under it;

(b) tunnel or bore under the street;

(c) place apparatus in the street;

(d) maintain apparatus in the street or change its position;

(e) demolish, remove, replace and relocate any bus shelter and associated bus stop infrastructure;

(f) execute any works to provide or improve sight lines required by the highway authority; and

(g) execute any works required for or incidental to any works referred to in sub-paragraphs (a), (b), (c), (d), (e) and (f).

(2) The authority given by paragraph (1) is a statutory right for the purposes of sections 48(3) (streets, street works and undertakers) and 51(1) (prohibition of unauthorised street works) of the 1991 Act(**a**).

(3) The provisions of sections 54 to 106 of the 1991(**b**) Act apply to any street works carried out under paragraph (1).

(4) In this article "apparatus" has the same meaning as in Part 3 of the 1991 Act save that it shall further include a bus shelter and associated bus stop infrastructure.

Power to alter layout, etc., of streets

10.—(1) The undertaker may alter the layout of or carry out any ancillary works in the street specified in column (2) of Schedule 3 (streets subject to alteration of layout) in the manner specified in relation to that street in column (3).

(2) Without prejudice to the specific powers conferred by article 3 or paragraph (1) but subject to paragraph (3), the undertaker may, for the purposes of constructing and maintaining the authorised development, alter the layout of any street within the Order limits and the layout of any street having a junction with such a street; and, without limiting the scope of this paragraph, the undertaker may—

(a) increase the width of the carriageway of the street by reducing the width of any kerb, footpath, footway, cycle track or verge within the street;

(**a**) Section 48 is amended by the Local Transport Act 2008 (c. 26) s.124(2); section 51 is amended by Schedule 1 to the Traffic Management Act 2004 (c.18).

(**b**) Sections 54 to 106 are amended by Schedule 7 to the Road Traffic Act 1991 (c.40), Schedule 1 to the Water Consolidation (Consequential Provisions) Act 1991 (c.60), sections 255 and 256 of the Transport Act 2000 (c.38), sections 40 to 64 of, and Schedule 1 to, the Traffic Management Act 2004 (c.18), Schedule 3 to the Flood and Water Management Act 2010 (c.29), and regulation 17 of S.I. 2007/1951; there are other amendments that are not relevant to this Order.

(b) alter the level or increase the width of any such kerb, footpath, footway, cycle track or verge; and

(c) reduce the width of the carriageway of the street.

(3) The powers conferred by paragraph (2) shall not be exercised without the consent of the street authority but such consent shall not be unreasonably withheld.

(4) The alteration of the layout of any street carried out pursuant to paragraphs (1) or (2) shall be completed to the reasonable satisfaction of the street authority.

Maintenance of altered streets

11.—(1) Where a street is altered or diverted under this Order, the altered or diverted part of the street shall, unless otherwise agreed with the street authority, be maintained by and at the expense of the undertaker.

(2) In any action against the undertaker in respect of loss or damage resulting from any failure by it to maintain a street under this article, it shall be a defence (without prejudice to any other defence or the application of the law relating to contributory negligence) to prove that the undertaker had taken such care as in all the circumstances was reasonably required to secure that the part of the street to which the action relates was not dangerous to traffic.

(3) For the purposes of a defence under paragraph (2), the court shall in particular have regard to the following matters—

(a) the character of the street and the traffic which was reasonably to be expected to use it;

(b) the standard of maintenance appropriate for a street of that character and used by such traffic;

(c) the state of repair in which a reasonable person would have expected to find the street;

(d) whether the undertaker knew, or could reasonably have been expected to know, that the condition of the part of the street to which the action relates was likely to cause danger to users of the street;

(e) where the undertaker could not reasonably have been expected to repair that part of the street before the cause of action arose, what warning notices of its condition had been displayed,

but for the purposes of such a defence it is not relevant to prove that the undertaker had arranged for a competent person to carry out or supervise the maintenance of the part of the street to which the action relates unless it is also proved that the undertaker had given the competent person proper instructions with regard to the maintenance of the street and that the competent person had carried out those instructions.

Temporary stopping up of streets and rights of way

12.—(1) The undertaker, during and for the purposes of carrying out the authorised development, may temporarily stop up, alter or divert any street or any other right of way and may for any reasonable time—

(a) divert the traffic or a class of traffic from the street or right of way; and

(b) subject to paragraph (2), prevent all persons from passing along the street or right of way.

(2) The undertaker shall provide reasonable access for pedestrians going to or from premises abutting a street affected by the temporary stopping up, alteration or diversion of a street under this article if there would otherwise be no such access.

(3) Without prejudice to the generality of paragraph (1), the undertaker may temporarily stop up, alter or divert the streets or rights of way specified in columns (1) and (2) of Schedule 4 (streets and rights of way to be temporarily stopped up) to the extent specified, by reference to the letters and numbers shown on the access and temporary stopping up plans, in column (3) of that Schedule.

(4) The undertaker shall restore to the reasonable satisfaction of the highway authority any street that has been temporarily stopped up, altered or diverted under paragraph (1).

(5) The undertaker shall not temporarily stop up, alter or divert—

(a) any street or right of way specified as mentioned in paragraph (3) without first consulting the highway authority; and

(b) any other street without the consent of the highway authority which may attach reasonable conditions to any consent.

(6) Any person who suffers loss by the suspension of any private right of way under this article shall be entitled to compensation to be determined, in case of dispute, under Part 1 of the 1961 Act.

Access to works

13.—(1) The undertaker may, for the purposes of the construction and/or the maintenance of the authorised development—

(a) form and lay out means of access, or improve existing means of access, in the locations specified in columns (1) and (2) of Schedule 5 (access to works); and

(b) with the approval of the relevant planning authority after consultation with the highway authority, form and lay out such other means of access or improve existing means of access, at such locations within the Order limits as the undertaker reasonably requires for the purposes of the authorised development.

Agreements with street authorities

14.—(1) A street authority and the undertaker may enter into agreements with respect to—

(a) the construction of any new street including any structure carrying the street over or under any part of the authorised development;

(b) the strengthening, improvement, repair or reconstruction of any street under the powers conferred by this Order;

(c) any stopping up, alteration or diversion of a street authorised by this Order; or

(d) the carrying out in the street of any of the works referred to in article 9(1) (street works).

(2) Such an agreement may, without prejudice to the generality of paragraph (1)—

(a) make provision for the street authority to carry out any function under this Order which relates to the street in question;

(b) include an agreement between the undertaker and street authority specifying a reasonable time for completion of the works; and

(c) contain such terms as to payment and otherwise as the parties consider appropriate.

Supplemental powers

Discharge of water

15.—(1) The undertaker may use any watercourse or any public sewer or drain for the drainage of water in connection with the carrying out or maintenance of the authorised development and for that purpose may lay down, take up and alter pipes and may, on any land within the Order limits, make openings into, and connections with, the watercourse, public sewer or drain.

(2) Any dispute arising from the making of connections to or the use of a public sewer or drain by the undertaker pursuant to paragraph (1) shall be determined as if it were a dispute under section 106 of the Water Industry Act 1991(**a**) (right to communicate with public sewers).

(3) The undertaker shall not discharge any water into any watercourse, public sewer or drain except with the consent of the person to whom it belongs; and such consent may be given subject to

(**a**) 1991 c.56; section 106 is amended by sections 36(2) and 99 of the Water Act 2003 (c.37). There are other amendments to this section which are not relevant to this Order.

such terms and conditions as that person may reasonably impose, but shall not be unreasonably withheld.

(4) The undertaker shall not make any opening into any public sewer or drain except—

(a) in accordance with plans approved by the person to whom the sewer or drain belongs, but such approval shall not be unreasonably withheld; and

(b) where that person has been given the opportunity to supervise the making of the opening.

(5) The undertaker shall not, in carrying out or maintaining works pursuant to this article, damage or interfere with the bed or banks of any watercourse forming part of a main river.

(6) The undertaker shall take such steps as are reasonably practicable to secure that any water discharged into a watercourse or public sewer or drain pursuant to this article is as free as may be practicable from gravel, soil or other solid substance, oil or matter in suspension.

(7) This article does not authorise the discharge or entry into inland fresh waters or coastal waters of any matter whose entry or discharge into those waters is prohibited by regulation 38 of the Environmental Permitting (England and Wales) Regulations 2010(**a**).

(8) In this article—

(a) "public sewer or drain" means a sewer or drain which belongs to the Homes and Communities Agency, the Environment Agency or a harbour authority within the meaning of section 57 of the Harbours Act 1964(**b**) (interpretation), an internal drainage board, a joint planning board, a local authority or a sewerage undertaker; and

(b) Other expressions, excluding watercourse, used both in this article and in the Water Resources Act 1991 have the same meaning as in that Act.

Protective work to buildings

16.—(1) Subject to the following provisions of this article, the undertaker may at its own expense carry out such protective works to any building lying within the Order limits as the undertaker considers necessary or expedient.

(2) Protective works may be carried out—

(a) at any time before or during the carrying out in the vicinity of the building of any part of the authorised development; or

(b) after the completion of that part of the authorised development in the vicinity of the building at any time up to the end of the period of 5 years beginning with the day on which that part of the authorised development is first opened for use.

(3) For the purpose of determining how the functions under this article are to be exercised the undertaker may enter and survey any building falling within paragraph (1) and any land within its curtilage.

(4) For the purpose of carrying out protective works under this article to a building the undertaker may (subject to paragraphs (5) and (6))—

(a) enter the building and any land within its curtilage; and

(b) where the works cannot be carried out reasonably conveniently without entering land which is adjacent to the building but outside its curtilage, enter the adjacent land (but not any building erected on it).

(5) Before exercising—

(a) a right under paragraph (1) to carry out protective works to a building;

(b) a right under paragraph (3) to enter a building and land within its curtilage;

(c) a right under paragraph (4)(a) to enter a building and land within its curtilage; or

(d) a right under paragraph (4)(b) to enter land,

(**a**) S.I. 2010/675.
(**b**) 1964 c.40; there are amendments to section 57 that are not relevant to this Order.

the undertaker shall, except in the case of emergency, serve on the owners and occupiers of the building or land not less than 14 days' notice of its intention to exercise that right and, in a case falling within sub-paragraph (a) or (c), specifying the protective works proposed to be carried out.

(6) Where a notice is served under paragraph (5)(a), (c) or (d), the owner or occupier of the building or land concerned may, by serving a counter-notice within the period of 10 days beginning with the day on which the notice was served, require the question whether it is necessary or expedient to carry out the protective works or to enter the building or land to be referred to arbitration under article 41 (arbitration).

(7) The undertaker shall compensate the owners and occupiers of any building or land in relation to which rights under this article have been exercised for any loss or damage arising to them by reason of the exercise of those rights.

(8) Where—

(a) protective works are carried out under this article to a building; and

(b) within the period of 5 years beginning with the day on which the part of the authorised development carried out in the vicinity of the building is first opened for use it appears that the protective works are inadequate to protect the building against damage caused by the carrying out or use of that part of the authorised development,

the undertaker shall compensate the owners and occupiers of the building for any loss or damage sustained by them.

(9) Nothing in this article shall relieve the undertaker from any liability to pay compensation under section 10(2) of the 1965 Act (compensation for injurious affection).

(10) Any compensation payable under paragraph (7) or (8) shall be determined, in case of dispute, under Part 1 of the 1961 Act (determination of questions of disputed compensation).

(11) In this article "protective works" in relation to a building means—

(a) underpinning, strengthening and any other works the purpose of which is to prevent damage which may be caused to the building by the carrying out, maintenance or use of the authorised development; and

(b) any works the purpose of which is to remedy any damage which has been caused to the building by the carrying out, maintenance or use of the authorised development.

Authority to survey and investigate the land

17.—(1) The undertaker may for the purposes of this Order enter on any land shown within the Order limits or which may be affected by the authorised development and—

(a) survey and/or investigate the land;

(b) without prejudice to the generality of sub-paragraph (a), make trial holes in such positions on the land as the undertaker thinks fit to investigate the nature of the surface layer and/or subsoil and/or to remove soil samples;

(c) without prejudice to the generality of sub-paragraph (a), carry out ecological and/or archaeological investigations on such land; and

(d) place on, leave on and remove from the land apparatus for use in connection with the survey and/or investigation of land and/or the making of trial holes.

(2) No land may be entered or equipment placed or left on or removed from the land under paragraph (1) unless at least 14 days' notice has been served on every owner and occupier of the land.

(3) Any person entering land under this article on behalf of the undertaker—

(a) shall, if so required entering the land, produce written evidence of their authority to do so; and

(b) may take with them such vehicles and equipment as are necessary to carry out the survey or investigation or to make the trial holes.

(4) No trial holes shall be made under this article—

(a) in land located within the highway boundary without the consent of the highway authority; or

(b) in a private street without the consent of the street authority,

but such consent shall not be unreasonably withheld.

(5) The undertaker shall compensate the owners and occupiers of the land for any loss or damage arising by reason of the exercise of the authority conferred by this article, such compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

PART 3

ACQUISITION AND POSSESSION OF LAND

Powers of acquisition

Compulsory acquisition of land

18.—(1) The undertaker may acquire compulsorily so much of the Order land as is required for the authorised development or to facilitate it, or is incidental to it.

(2) As from the date on which a compulsory acquisition notice under section 134(3) of the 2008 Act is served or the date on which the Order land, or any part of it, is vested in the undertaker, whichever is the later, that land or that part of it which is vested (as the case may be) shall be discharged from all rights, trusts and incidents to which it was previously subject.

(3) Any person who suffers loss by the extinguishment or suspension of any private right of way under this article shall be entitled to compensation to be determined, in case of dispute, under Part 1 of the 1961 Act.

(4) This article is subject to article 20 (acquisition of subsoil only) and article 23 (temporary use of land for carrying out the authorised development).

Compulsory acquisition of rights

19.—(1) The undertaker may acquire compulsorily the existing rights and create and acquire compulsorily the new rights described in the book of reference and shown on the land plans.

(2) As from the date on which a compulsory acquisition notice is served or the date on which any new right is vested in the undertaker, whichever is the later, the land over which any new rights is acquired shall be discharged from all rights, trusts and incidents to which it was previously subject so far as their continuance would be inconsistent with the exercise of that new right.

(3) Subject to section 8 of the 1965 Act, as substituted by article 28 (acquisition of part of certain properties), where the undertaker acquires an existing right over land under paragraph (1), the undertaker shall not be required to acquire a greater interest in that land.

(4) Any person who suffers loss as a result of the extinguishment or suspension of any private right of way under this article shall be entitled to compensation to be determined, in case of dispute, under Part 1 of the 1961 Act.

Acquisition of subsoil only

20.—(1) The undertaker may acquire compulsorily so much of, or such rights in, the subsoil of the land referred to in paragraph (1) of article 18 (compulsory acquisition of land) as may be required for any purpose for which that land may be acquired under that provision instead of acquiring the whole of the land.

(2) Where the undertaker acquires any part of, or rights in, the subsoil of land under paragraph (1), the undertaker shall not be required to acquire an interest in any other part of the land.

(3) Paragraph (2) shall not prevent article 28 (acquisition of part of certain properties) from applying where the undertaker acquires a cellar, vault, arch or other construction forming part of a house, building or manufactory.

Power to override easements and other rights

21.—(1) Any authorised activity which takes place on land within the Order limits (whether the activity is undertaken by the undertaker or by any person deriving title from the undertaker or by any servants or agents of the undertaker) is authorised by this Order if it is done in accordance with the terms of this Order, notwithstanding that it involves—

(a) an interference with an interest or right to which this article applies; or

(b) a breach of a restriction as to the user of land arising by virtue of a contract.

(2) In this article "authorised activity" means—

(a) the erection, construction or carrying out, or maintenance of any building or work on land;

(b) the erection, construction, or maintenance of anything in, on, over or under land; or

(c) the use of any land (including the temporary use of land).

(3) The interests and rights to which this article applies are any easement, liberty, privilege, right or advantage annexed to land and adversely affecting other land, including any natural right to support and include restrictions as to the user of land arising by the virtue of a contract.

(4) Where any interest or right to which this article applies is interfered with or any restriction breached by any authorised activity in accordance with the terms of this article the interest, right or restriction shall be extinguished, abrogated or discharged at the time that the interference or breach in respect of the authorised activity in question commences.

(5) In respect of any interference, breach, extinguishment, abrogation or discharge in pursuance of this article, compensation—

(a) shall be payable under section 7 or 10 of the 1965 Act(**a**); and

(b) shall be assessed in the same manner and subject to the same rules as in the case of other compensation under those sections where—

(i) the compensation is to be estimated in connection with a purchase under that Act; or

(ii) the injury arises from the execution of works on or use of land acquired under that Act.

(6) Where a person deriving title under the undertaker by whom the land in question was acquired—

(a) is liable to pay compensation by virtue of paragraph (5), and

(b) fails to discharge that liability,

the liability shall be enforceable against that undertaker.

(7) Nothing in this article shall be construed as authorising any act or omission on the part of any person which is actionable at the suit of any person on any grounds other than such an interference or breach as is mentioned in paragraph (1) of this article.

Application of the Compulsory Purchase (Vesting Declarations) Act 1981

22.—(1) The Compulsory Purchase (Vesting Declarations) Act 1981(**b**) shall apply as if this Order were a compulsory purchase order and as if the undertaker were a public authority under section 1(2) of that Act.

(**a**) There are amendments that are not relevant to this Order.
(**b**) 1981 c. 66.

(2) The Compulsory Purchase (Vesting Declarations) Act 1981, as so applied, shall have effect with the following modifications.

(3) In section 3 (preliminary notices), for subsection (1) there shall be substituted—

"(1) Before making a declaration under section 4 with respect to any land which is subject to a compulsory purchase order, the acquiring authority shall include the particulars specified in subsection (3) in a notice which is—

(a) given to every person with a relevant interest in the land with respect to which the declaration is to be made (other than a mortgagee who is not in possession); and

(b) published in a local newspaper circulating in the area in which the land is situated.".

(4) In that section, in subsection (2), for "(1)(b)" there shall be substituted "(1)" and after "given" there shall be inserted "and published".

(5) In that section, for subsections (5) and (6) there shall be substituted—

"(5) For the purposes of this section, a person has a relevant interest in land if—

(a) that person is for the time being entitled to dispose of the fee simple of the land, whether in possession or in reversion; or

(b) that person holds, or is entitled to the rents and profits of, the land under a lease or agreement, the unexpired term of which exceeds one month.".

(6) In section 5 (earliest date for execution of declaration)—

(a) in subsection (1), after "publication" there shall be inserted "in a local newspaper circulating in the area in which the land is situated"; and

(b) subsection (2) shall be omitted.

(7) In section 7 (constructive notice to treat), in subsection (1)(a), the words "(as modified by section 4 of the Acquisition of Land Act 1981)" shall be omitted.

(8) References to the 1965 Act in the Compulsory Purchase (Vesting Declarations) Act 1981 shall be construed as references to that Act as applied by section 125 of the 2008 Act to the compulsory acquisition of land under this Order.

Temporary possession of land

Temporary use of land for carrying out the authorised development

23.—(1) The undertaker may, in connection with the carrying out of the authorised development—

(a) enter on and take temporary possession of the land specified in columns (1) and (2) of Schedule 6 (land of which temporary possession may be taken) for the purpose specified in relation to that land in column (3) of that Schedule relating to the part of the authorised development specified in column (4) of that Schedule;

(b) remove any buildings and vegetation from that land; and

(c) construct temporary works (including the provision of means of access) and buildings on that land.

(2) Not less than 14 days before entering on and taking temporary possession of land under this article the undertaker shall serve notice of the intended entry on the owners and occupiers of the land.

(3) The undertaker may not, without the agreement of the owners of the land, remain in possession of any land under this article after the end of the period of one year beginning with the date of completion of the part of the authorised development specified in relation to that land in column (4) of Schedule 6 (land of which temporary possession may be taken) unless and to the extent that it is authorised to do so by the acquisition of rights over land or the creation of new rights over land pursuant to article 19 (compulsory acquisition of rights) of this Order.

(4) Before giving up possession of land of which temporary possession has been taken under this article, the undertaker shall remove all temporary works and restore the land to the reasonable satisfaction of the owners of the land; but the undertaker shall not be required to replace a building removed under this article.

(5) The undertaker shall pay compensation to the owners and occupiers of land of which temporary possession is taken under this article for any loss or damage arising from the exercise in relation to the land of the provisions of any power conferred by this article.

(6) Any dispute as to a person's entitlement to compensation under paragraph (5), or as to the amount of the compensation, shall be determined under Part 1 of the 1961 Act.

(7) Nothing in this article shall affect any liability to pay compensation under section 10(2) of the 1965 Act (further provisions as to compensation for injurious affection) or under any other enactment in respect of loss or damage arising from the carrying out of the authorised development, other than loss or damage for which compensation is payable under paragraph (5).

(8) The undertaker may not compulsorily acquire under this Order the land referred to in paragraph (1) except that the undertaker shall not be precluded from—

(a) acquiring new rights over any part of that land under article 19 (compulsory acquisition of rights); or

(b) acquiring any part of the subsoil (or rights in the subsoil) of that land under article 20 (acquisition of subsoil only).

(9) Where the undertaker takes possession of land under this article, the undertaker shall not be required to acquire the land or any interest in it.

(10) Section 13 of the 1965 Act(**a**) (refusal to give possession to acquiring authority) shall apply to the temporary use of land pursuant to this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 of the 2008 Act (application of compulsory acquisition provisions).

Temporary use of land for maintaining authorised development

24.—(1) Subject to paragraph (2), at any time during the maintenance period relating to any part of the authorised development, the undertaker may—

(a) enter on and take temporary possession of any land within the Order limits if such possession is reasonably required for the purpose of maintaining the authorised development;

(b) enter on any land within the Order limits for the purpose of gaining access as is reasonably required for the purpose of maintaining the authorised development; and

(c) construct such temporary works (including the provision of means of access) and buildings on the land as may be reasonably necessary for that purpose.

(2) Paragraph (1) shall not authorise the undertaker to take temporary possession of—

(a) any house or garden belonging to a house; or

(b) any building (other than a house) if it is for the time being occupied.

(3) Not less than 28 days before entering on and taking temporary possession of land under this article the undertaker shall serve notice of the intended entry on the owners and occupiers of the land.

(4) The undertaker may only remain in possession of land under this article for so long as may be reasonably necessary to carry out the maintenance of the part of the authorised development for which possession of the land was taken.

(5) Before giving up possession of land of which temporary possession has been taken under this article, the undertaker shall remove all temporary works and restore the land to the reasonable satisfaction of the owners of the land.

(**a**) Section 13 is amended by section 139 of the Tribunals, Courts and Enforcement Act 2007 (c.15).

(6) The undertaker shall pay compensation to the owners and occupiers of land of which temporary possession is taken under this article for any loss or damage arising from the exercise in relation to the land of the provisions of this article.

(7) Any dispute as to a person's entitlement to compensation under paragraph (6), or as to the amount of the compensation, shall be determined under Part 1 of the 1961 Act.

(8) Nothing in this article shall affect any liability to pay compensation under section 10(2) of the 1965 Act (further provisions as to compensation for injurious affection) or under any other enactment in respect of loss or damage arising from the maintenance of the authorised development, other than loss or damage for which compensation is payable under paragraph (6).

(9) Where the undertaker takes possession of land under this article, the undertaker shall not be required to acquire the land or any interest in it.

(10) Section 13 of the 1965 Act (refusal to give possession to acquiring authority) shall apply to the temporary use of land pursuant to this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 of the 2008 Act (application of compulsory acquisition provisions).

(11) In this article "the maintenance period", in relation to any part of the authorised development, means the period of 5 years beginning with the date on which that part of the authorised development is first opened for use.

Compensation

Disregard of certain interests and improvements

25.—(1) In assessing the compensation payable to any person on the acquisition from that person of any land or right over any land under this Order, the tribunal shall not take into account—

(a) any interest in land; or

(b) any enhancement of the value of any interest in land by reason of any building erected, works executed or improvement or alteration made on relevant land,

if the tribunal is satisfied that the creation of the interest, the erection of the building, the execution of the works or the making of the improvement or alteration as part of the authorised development was not reasonably necessary and was undertaken with a view to obtaining compensation or increased compensation.

(2) In paragraph (1) "relevant land" means the land acquired from the person concerned or any other land with which that person is, or was at the time when the building was erected, the works executed or the improvement or alteration made as part of the authorised development, directly or indirectly concerned.

Set-off for enhancement in value of retained land

26.—(1) In assessing the compensation payable to any person in respect of the acquisition from that person under this Order of any land (including the subsoil) the tribunal shall set off against the value of the land so acquired any increase in value of any contiguous or adjacent land belonging to that person in the same capacity which will accrue to that person by reason of the construction of the authorised development.

(2) In assessing the compensation payable to any person in respect of the acquisition from that person of any new rights over land (including the subsoil), under article 19 (compulsory acquisition of rights), the tribunal shall set off against the value of the rights so acquired—

(a) any increase in the value of the land over which the new rights are required; and

(b) any increase in value of any contiguous or adjacent land belonging to that person in the same capacity,

which will accrue to that person by reason of the construction of the authorised development.

(3) The 1961 Act shall have effect, subject to paragraphs (1) and (2), as if this Order were a local enactment for the purposes of that Act.

No double recovery

27. Compensation shall not be payable in respect of the same matter both under this Order and under any other enactment, any contract or any rule of law, or under two or more different provisions under this Order.

Supplementary

Acquisition of part of certain properties

28.—(1) This article shall apply instead of section 8(1) of the 1965 Act (other provisions as divided land) (as applied by section 125 of the 2008 Act) where—

(a) a notice to treat is served on a person ("the owner") under the 1965 Act (as so applied) in respect of land forming only part of a house, building or manufactory or of land consisting of a house with a park or garden ("the land subject to the notice to treat"); and

(b) a copy of this article is served on the owner with the notice to treat.

(2) In such a case, the owner may, within the period of 21 days beginning with the day on which the notice was served, serve on the undertaker a counter-notice objecting to the sale of the land subject to the notice to treat which states that the owner is willing and able to sell the whole ("the land subject to the counter-notice").

(3) If no such counter-notice is served within that period, the owner shall be required to sell the land subject to the notice to treat.

(4) If such a counter-notice is served within that period, the question whether the owner shall be required to sell only the land subject to the notice to treat shall, unless the undertaker agrees to take the land subject to the counter-notice, be referred to the tribunal.

(5) If on such a reference the tribunal determines that the land subject to the notice to treat can be taken—

(a) without material detriment to the remainder of the land subject to the counter-notice; or

(b) where the land subject to the notice to treat consists of a house with a park or garden, without material detriment to the remainder of the land subject to the counter-notice and without seriously affecting the amenity and convenience of the house,

the owner shall be required to sell the land subject to the notice to treat.

(6) If on such a reference the tribunal determines that only part of the land subject to the notice to treat can be taken—

(a) without material detriment to the remainder of the land subject to the counter-notice; or

(b) where the land subject to the notice to treat consists of a house with a park or garden, without material detriment to the remainder of the land subject to the counter-notice and without seriously affecting the amenity and convenience of the house,

the notice to treat shall be deemed to be a notice to treat for that part.

(7) If on such a reference the tribunal determines that—

(a) the land subject to the notice to treat cannot be taken without material detriment to the remainder of the land subject to the counter-notice; but

(b) the material detriment is confined to a part of the land subject to the counter-notice,

the notice to treat shall be deemed to be a notice to treat for the land to which the material detriment is confined in addition to the land already subject to the notice, whether or not the additional land is land which the undertaker is authorised to acquire compulsorily under this Order.

(8) If the undertaker agrees to take the land subject to the counter-notice, or if the tribunal determines that—

(a) none of the land subject to the notice to treat can be taken without material detriment to the remainder of the land subject to the counter-notice or, as the case may be, without material detriment to the remainder of the land subject to the counter-notice and without seriously affecting the amenity and convenience of the house; and

(b) the material detriment is not confined to a part of the land subject to the counter-notice,

the notice to treat shall be deemed to be a notice to treat for the land subject to the counter-notice whether or not the whole of that land is land which the undertaker is authorised to acquire compulsorily under this Order.

(9) Where, by reason of a determination by the tribunal under this article, a notice to treat is deemed to be a notice to treat for less land or more land than that specified in the notice, the undertaker may, within the period of 6 weeks beginning with the day on which the determination is made, withdraw the notice to treat; and, in that event, shall pay the owner compensation for any loss or expense occasioned to the owner by the giving and withdrawal of the notice, to be determined in case of dispute by the tribunal.

(10) Where the owner is required under this article to sell only part of a house, building or manufactory or of land consisting of a house with a park or garden, the undertaker shall pay the owner compensation for any loss sustained by the owner due to the severance of that part in addition to the value of the interest acquired.

Statutory undertakers

29. The undertaker may—

(a) acquire compulsorily the land belonging to statutory undertakers shown on the land plans within the limits of the land to be acquired and described in the book of reference;

(b) within the Order limits extinguish the rights of, and/or remove, replace, reposition, renew, alter and supplement the apparatus belonging to, statutory undertakers shown on the access and temporary stopping up plans and described in the book of reference; and

(c) acquire compulsorily the new rights over land belonging to statutory undertakers shown on the land plans and described in the book of reference.

Recovery of costs of new connections

30.—(1) Where any apparatus of a public utility undertaker or of a public communications provider is removed under article 29 (statutory undertakers) any person who is the owner or occupier of premises to which a supply was given from that apparatus shall be entitled to recover from the undertaker compensation in respect of expenditure reasonably incurred by that person, in consequence of the removal, for the purpose of effecting a connection between the premises and any other apparatus from which a supply is given.

(2) Paragraph (1) shall not apply in the case of the removal of a public sewer but where such a sewer is removed under article 29, any person who is—

(a) the owner or occupier of premises the drains of which communicated with that sewer; or

(b) the owner of a private sewer which communicated with that sewer,

shall be entitled to recover from the undertaker compensation in respect of expenditure reasonably incurred by that person, in consequence of the removal, for the purpose of making the drain or sewer belonging to that person communicate with any other public sewer or with a private sewerage disposal plant.

(3) This article shall not have effect in relation to apparatus to which Part 3 of the 1991 Act applies.

(4) In this paragraph—

"public communications provider" has the same meaning as in section 151(1) of the Communications Act 2003(**a**); and

"public utility undertaker" has the same meaning as in the 1980 Act.

Time limit for exercise of authority to acquire land compulsorily

31.—(1) After the end of the period of 5 years beginning on the day on which this Order is made—

(a) no notice to treat shall be served under Part 1 of the 1965 Act; and

(b) no declaration shall be executed under section 4 of the Compulsory Purchase (Vesting Declarations) Act 1981(**b**) as applied by article 22 (application of the Compulsory Purchase (Vesting Declarations) Act 1981).

(2) The authority conferred by article 23 (temporary use of land for carrying out the authorised development) shall cease at the end of the period referred to in paragraph (1), save that nothing in this paragraph shall prevent the undertaker remaining in possession of land after the end of that period, if the land was entered and possession was taken before the end of that period.

Private rights of way

32.—(1) Subject to the provisions of this article, all private rights of way over land subject to compulsory acquisition under this Order shall be extinguished—

(a) as from the date of acquisition of the land by the undertaker, whether compulsorily or by agreement; or

(b) on the date of entry on the land by the undertaker under section 11(1) of the 1965 Act(**c**) (power of entry),

whichever is the earlier.

(2) Subject to the provisions of this article, all private rights of way over land owned by the undertaker which, being within the limits of land which may be acquired shown on the land plans, is required for the purposes of this Order shall be extinguished on the appropriation of the land by the undertaker for any of those purposes.

(3) Subject to the provisions of this article, all private rights of way over land of which the undertaker takes temporary possession under this Order shall be suspended and unenforceable for as long as the undertaker remains in lawful possession of the land.

(4) Any person who suffers loss by the extinguishment or suspension of any private right of way under this article shall be entitled to compensation to be determined, in case of dispute, under Part 1 of the 1961 Act.

(5) This article does not apply in relation to any right of way to which section 138 of the 2008 Act (extinguishment of rights, and removal of apparatus, of statutory undertakers etc.) or article 29 (statutory undertakers) applies.

(6) Paragraphs (1) to (3) shall have effect subject to—

(a) any notice given by the undertaker before—

(i) the completion of the acquisition of the land,

(ii) the undertaker's appropriation of it,

(iii) the undertaker's entry onto it, or

(iv) the undertaker's taking temporary possession of it,

(**a**) 2003 c.21; there are amendments to section 151 that are not relevant to this Order.
(**b**) 1981 c.66.
(**c**) Section 11 is amended by Schedule 4 to the Acquisition of Land Act 1981 (c.67), Schedule 1 to the Housing (Consequential Provisions) Act 1985 (c.71), the Church of England (Miscellaneous Provisions) Measure 2006 No. 1 Sch.5 para.12(1) and the Transfer of Tribunal Functions (Lands Tribunal and Miscellaneous Amendments) Order 2009 (S.I. 2009/1307).

that any or all of those paragraphs shall not apply to any right of way specified in the notice; and

(b) any agreement made at any time between the undertaker and the person in or to whom the right of way in question is vested or belongs.

(7) If any such agreement as is referred to in paragraph (6)(b)—

(a) is made with a person in or to whom the right of way is vested or belongs; and

(b) is expressed to have effect also for the benefit of those deriving title from or under that person,

it shall be effective in respect of the persons so deriving title, whether the title was derived before or after the making of the agreement.

Rights under or over streets

33.—(1) The undertaker may enter on and appropriate so much of the subsoil of, or air-space over, any street within the Order limits as may be required for the purposes of the authorised development and may use the subsoil or air-space for those purposes or any other purpose ancillary to the authorised development.

(2) Subject to paragraph (3), the undertaker may exercise any power conferred by paragraph (1) in relation to a street without being required to acquire any part of the street or any easement or right in the street.

(3) Paragraph (2) shall not apply in relation to—

(a) any subway or underground building; or

(b) any cellar, vault, arch or other construction in, on or under a street which forms part of a building fronting onto the street.

(4) Subject to paragraph (5), any person who is an owner or occupier of land appropriated under paragraph (1) without the undertaker acquiring any part of that person's interest in the land, and who suffers loss as a result, shall be entitled to compensation to be determined, in case of dispute, under Part 1 of the 1961 Act.

(5) Compensation shall not be payable under paragraph (4) to any person who is an undertaker to whom section 85 of the 1991 Act (sharing cost of necessary measures) applies in respect of measures of which the allowable costs are to be borne in accordance with that section.

PART 4

MISCELLANEOUS AND GENERAL

Application of landlord and tenant law

34.—(1) This article applies to—

(a) any agreement for leasing to any person the whole or any part of the authorised development or the right to operate the same; and

(b) any agreement entered into by the undertaker with any person for the construction, maintenance, use or operation of the authorised development, or any part of it,

so far as any such agreement relates to the terms on which any land which is the subject of a lease granted by or under that agreement is to be provided for that person's use.

(2) No enactment or rule of law regulating the rights and obligations of landlords and tenants shall prejudice the operation of any agreement to which this article applies.

(3) Accordingly, no such enactment or rule of law shall apply in relation to the rights and obligations of the parties to any lease granted by or under any such agreement so as to—

(a) exclude or in any respect modify any of the rights and obligations of those parties under the terms of the lease, whether with respect to the termination of the tenancy or any other matter;

(b) confer or impose on any such party any right or obligation arising out of or connected with anything done or omitted on or in relation to land which is the subject of the lease, in addition to any such right or obligation provided for by the terms of the lease; or

(c) restrict the enforcement (whether by action for damages or otherwise) by any party to the lease of any obligation of any other party under the lease.

Deemed consent under Part 4 (marine licensing) of the Marine and Coastal Access Act 2009

35.—(1) A marine licence shall be deemed to have been issued to the undertaker under Part 4 (marine licensing) of the Marine and Coastal Access Act 2009(**a**).

(2) The marine licence deemed to have been issued under this article is set out at Schedule 7 (deemed marine licence under Part 4 (marine licensing) of the Marine and Coastal Access Act 2009).

Operational land for purposes of the 1990 Act

36. Development consent granted by this Order shall be treated as specific planning permission for the purposes of section 264(3)(a) of the 1990 Act (cases in which land is to be treated as not being operational land for the purposes of that Act).

Felling or lopping of trees or shrubs

37.—(1) The undertaker may fell or lop any tree or shrub near any part of the authorised development, or cut back its roots, if it reasonably believes it to be necessary to do so to prevent the tree or shrub—

(a) from obstructing or interfering with the construction, maintenance or operation of the authorised development or any apparatus used in connection with the authorised development; or

(b) from constituting a danger to persons using the authorised development.

(2) In carrying out any activity authorised by paragraph (1), the undertaker shall do no unnecessary damage to any tree or shrub and shall pay compensation to any person for any loss or damage arising from such activity.

(3) Any dispute as to a person's entitlement to compensation under paragraph (2), or as to the amount of compensation, shall be determined under Part 1 of the 1961 Act.

Protective provisions

38. Schedule 8 to this Order has effect.

Certification of plans etc

39.—(1) The undertaker shall, as soon as practicable after the making of this Order, submit to the Secretary of State copies of—

(a) the access and temporary stopping up plans;

(b) the approved development plans;

(c) the book of reference;

(d) the environmental statement;

(**a**) 2009 c.23; there are amendments that are not relevant to this Order.

(e) Flints Caravan Park plan;

(f) geology summary report;

(g) Harbour Village plan;

(h) Kneps Farm Holiday Park plan;

(i) the land plans;

(j) the landscape and ecological management strategy plan; and

(k) Preesall site plan,

for certification that they are true copies of the plans or documents referred to in this Order.

(2) A plan or document so certified shall be admissible in any proceedings as evidence of the contents of the document of which it is a copy.

Service of notices

40.—(1) A notice or other document required or authorised to be served, given or supplied under this Order may be served, given or supplied in any of these ways—

(a) by delivering it to the person on whom it is to be served or to whom it is to be given or supplied;

(b) by leaving it at the usual or last known place of abode of that person or, in a case where an address for service has been given by that person, at that address;

(c) by sending it by post, addressed to that person at that person's usual or last known place of abode or, in a case where an address for service has been given by that person, at that address;

(d) by sending it in a prepaid registered letter, or by the recorded delivery service, addressed to that person at that person's usual or last known place of abode or, in a case where an address for service has been given by that person, at that address;

(e) in a case where an address for service using electronic communications has been given by that person, by sending it using electronic communications, in accordance with the condition set out in paragraph (2), to that person at that address;

(f) in the case of an incorporated company or body—

(i) by delivering it to the secretary or clerk of the company or body at their registered or principal office;

(ii) by sending it by post, addressed to the secretary or clerk of the company or body at that office; or

(iii) by sending it in a prepaid registered letter or, or by the recorded delivery service, addressed to the secretary or clerk of the company or body at that office.

(2) The condition mentioned in paragraph (1)(e) is that the notice or other document must be -

(a) capable of being accessed by the person mentioned in that provision;

(b) legible in all material respects; and

(c) in a form sufficiently permanent to be used for subsequent reference.

(3) For the purposes of paragraph (2), "legible in all material respects" means that the information contained in the notice or document is available to that person to no lesser extent than it would be if served, given or supplied by means of a notice or document in printed form.

Arbitration

41. Any difference or dispute under any provision of this Order (other than a difference or dispute which falls to be determined by the tribunal) shall, unless otherwise provided for in this Order and unless otherwise agreed between the parties, be referred to and settled by a single arbitrator to be agreed between the parties or, failing agreement, to be appointed on the

application of either party (after giving notice in writing to the other) by the President of the Institution of Civil Engineers.

Requirements

42.—(1) Schedule 9 to this Order has effect.

(2) Save for paragraphs 4(1) and 4(2) (detailed design approval) of Schedule 9 (requirements) and the definition of "approved development plans" in paragraph 1 (interpretation) of Schedule 9 (requirements), Schedule 9 (requirements) shall not apply to—

(a) Work Nos. 16J, 16K and 16L of Schedule 1 (authorised development) so far as these fall within the UK marine area; and

(b) the incorporation of filters into the existing water intake structure comprised in Work No. 15 of Schedule 1 (authorised development).

Appeals relating to decisions under requirements

43.—(1) Where the relevant planning authority—

(a) refuses an application for any consent, agreement or approval of that authority required by a requirement listed in Schedule 9 (requirements) to this Order or grants that consent, agreement or approval subject to conditions; or

(b) does not give notice to the undertaker of its decision on an application for any consent, agreement or approval of that authority required by a requirement listed in Schedule 9 (requirements) of this Order within 8 weeks beginning with the day immediately following that on which the application is received by that authority or within such extended period as may at any time be agreed upon in writing between the undertaker and that authority,

article 41 (arbitration) does not apply but the undertaker may by notice appeal to the Secretary of State.

(2) Any appeal to the Secretary of State under paragraph (1) shall be made under Part III (control over development) of the 1990 Act as if the requirement in Schedule 9 (requirements) of this Order which is the subject of the appeal were a condition under subsection 78(1)(b) of the 1990 Act.

Signed by authority of the Secretary of State

[Name of Secretary of State]
Department of [●]

[●] [●] 201[●]

SCHEDULES

SCHEDULE 1

Article 3

AUTHORISED DEVELOPMENT

In the Borough of Wyre in the County of Lancashire and in the Irish Sea adjacent to the Borough of Wyre—

A nationally significant infrastructure project as defined in sections 14 and 17 of the 2008 Act comprising—

Work No. 1A— An underground gas storage facility to store gas in, extract gas from and inject gas into, with a total storage capacity of up to 900 million standard cubic metres and working capacity of up to 600 million standard cubic metres, both specified at the standard temperature and pressure, comprising up to 19 operational caverns formed by solution mining of the Preesall halite deposit; all to be constructed to any extent downwards below 220 metres below ground surface and to be confined within the Preesall halite deposit; and

Associated development within the meaning section 115(2) of the 2008 Act comprising—

Work No. 1B— Vertical wells, S-shaped wells, slant wells and extended reach slant wells and internal operational pipeline strings connecting the multiple wellhead compounds (Work Nos. 2A to G) to the gas storage caverns (Work No.1A);

Work No. 2A— A wellhead compound area containing multiple wellheads, valve boxes, emergency hydraulic packs, manifold valve boxes, instrument enclosures, close circuit television facilities, intruder detectors, compound lighting, grassed mounds, stock proof fencing, security fencing and hard standings, below ground gas manifold pipelines, brine feeds and returns and power and communication cables situated beneath the wellhead compound and gated access roads from the wellheads to the gas compressor compound (Work No. 3) and to the booster pump station (Work No. 4).

Work No. 2B— A wellhead compound area containing multiple wellheads, valve boxes, emergency hydraulic packs, manifold valve boxes, instrument enclosures, close circuit television facilities, intruder detectors, compound lighting, grassed mounds, stock proof fencing, security fencing and hard standings, below ground gas manifold pipelines, brine feeds and returns and power and communication cables situated beneath the wellhead compound and gated access roads from the wellheads to the gas compressor compound (Work No. 3) and to the booster pump station (Work No. 4).

Work No. 2C— A wellhead compound area containing multiple wellheads, valve boxes, emergency hydraulic packs, manifold valve boxes, instrument enclosures, close circuit television facilities, intruder detectors, compound lighting, grassed mounds, stock proof fencing, security fencing and hard standings, below ground gas manifold pipelines, brine feeds and returns and power and communication cables situated beneath the wellhead compound and gated access roads from the wellheads to the gas compressor compound (Work No. 3) and to the booster pump station (Work No. 4).

Work No. 2D— A wellhead compound area containing multiple wellheads, valve boxes, emergency hydraulic packs, manifold valve boxes, instrument enclosures, close circuit television facilities, intruder detectors, compound lighting, grassed mounds, stock proof fencing, security fencing and hard standings, below ground gas manifold pipelines, brine feeds and returns and power and communication cables situated beneath the wellhead compound and gated access roads

from the wellheads to the gas compressor compound (Work No. 3) and to the booster pump station (Work No. 4).

Work No. 2E— A wellhead compound area containing multiple wellheads, valve boxes, emergency hydraulic packs, manifold valve boxes, instrument enclosures, close circuit television facilities, intruder detectors, compound lighting, grassed mounds, stock proof fencing, security fencing and hard standings, below ground gas manifold pipelines, brine feeds and returns and power and communication cables situated beneath the wellhead compound and gated access roads from the wellheads to the gas compressor compound (Work No. 3) and to the booster pump station (Work No. 4).

Work No. 2F— A wellhead compound area containing multiple wellheads, valve boxes, emergency hydraulic packs, manifold valve boxes, instrument enclosures, close circuit television facilities, intruder detectors, compound lighting, grassed mounds, stock proof fencing, security fencing and hard standings, below ground gas manifold pipelines, brine feeds and returns and power and communication cables situated beneath the wellhead compound and gated access roads from the wellheads to the gas compressor compound (Work No. 3) and to the booster pump station (Work No. 4).

Work No. 2G— A wellhead compound area containing multiple wellheads, valve boxes, emergency hydraulic packs, manifold valve boxes, instrument enclosures, close circuit television facilities, intruder detectors, compound lighting, grassed mounds, stock proof fencing, security fencing and hard standings, below ground gas manifold pipelines, brine feeds and returns and power and communication cables situated beneath the wellhead compound and gated access roads from the wellheads to the gas compressor compound (Work No. 3) and to the booster pump station (Work No. 4).

Work No. 3— A gas compressor compound containing gas compressor station, electrical utilities building and equipment including pig launchers and receivers, slug catchers, glycol contactors and regeneration system, compressors, compressor knock out separators, compressor aftercoolers, gas filters, and heaters and all storage tanks, sub stations, switch yards and valve pits, a vent stack within the fire water storage pond, drainage and interception facilities, internal and external site access roads linking to the public highway and individual wellhead compounds (Work Nos. 2A to 2G), diversion of overhead electricity cables, stock proof fencing, security fencing, gates, close circuit television, intruder detector system and external and internal lighting; and extensions of those parts of the 132kv electrical circuits, 11kv power cables and electrical control cables and interconnector gas main comprised in Work Nos. 17A, 18, 19 and 20A which link to elements within this Work No. 3.

Work No. 4— A booster pump station, de-brine facility and control centre compound including hardstandings for nitrogen tanks, hydrocyclones, a de-brine pond, other pumping equipment and a transformer compound. Internal vehicular access routes, turning areas, pedestrian areas, walls, fencing, close circuit television, intruder detector security systems and external lighting, a screen wall and grassed mounds situated on the north and west sides and underground and above ground pipework, electrical cables and other utilities; and extensions of those parts of the wash water pipelines, brine discharge pipelines, power and control cables comprised in Work Nos. 10, 11, 12, 13, 14, 18 and 19 which link to elements within this Work No. 4.

Work No. 5— A security and support facility at Higher Lickow farm including staff facilities, a maintenance workshop, an administration, health and safety and training facility and a security gatehouse, security fencing, power circuits, telecommunications cables and other facilities, close circuit television, intruder sensing security systems and external lighting; and those extensions of the roads comprised in Work Nos. 6 and 7 which link with elements of this Work No. 5.

Work No. 6— An internal/external site road from the A588 up to and including the security and support facility at Higher Lickow farm (Work No. 5) including drainage and interceptors, lighting, piped culverts/bridge, realigned watercourses, grass mounding and landscape screening.

Work No. 7— An internal site access road from the security and support facility at Higher Lickow farm (Work No. 5) to the gas compressor compound area (Work No. 3) including drainage

and interceptors, lighting, piped culverts, realigned watercourses, grass mounding and landscaping.

Work No. 8— Internal site access roads from the wellhead compounds (Works 2A to 2G) to the booster pump station (Work No. 4) and the gas compressor compound (Work No. 3).

Work No. 9— A gas manifold, distribution pipelines, power, control and telecommunications cables including underground pressure pipelines, pipelines and cables linking the wellhead compounds (Work Nos. 2A to 2G) to the gas compressor compound (Work No. 3); all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable) save where the pipelines, power, control and telecommunications cables rise to interface with the wellhead compounds (Work Nos. 2A to 2G) and the gas compressor compound (Work No. 3).

Work No. 10— A wash water pipeline including underground pressure pipelines linking each wellhead compound (Work Nos. 2A to 2G) to the booster pump station and de-brine facility (Work No. 4); all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable) save where the wash water pipeline rises to interface with the wellhead compounds (Work Nos. 2A to 2G) and the booster pump station (Work No. 4).

Work No. 11— A brine outlet pipeline including underground pressure pipelines linking each wellhead compound (Work Nos. 2A to 2G) to the booster pump station and de-brine facility (Work No. 4); all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable) save where the brine outlet pipeline rises to interface with the wellhead compounds (Work Nos. 2A to 2G) and the booster pump station (Work No. 4).

Work No. 12— A wash water pipeline from the seawater pump station (Work No. 15) to the booster pump station (Work No. 4) including an underground, under river pressure pipeline crossing constructed in trench, in pre-placed sleeves or placed by trenchless methods where not below the bed of the river Wyre and placed by trenchless methods where below the bed of the river Wyre; all to be constructed not less than 1 metre below ground surface (or not less than 8 metres below the bed of the river Wyre where applicable) and not more than 10 metres below ground surface (or not more than 35 metres below the bed of the river Wyre where applicable) save where the wash water pipeline rises to interface with the seawater pump station (Work No. 15) and the booster pump station (Work No. 4).

Work No. 13— A brine discharge pipeline between the booster pump station, (Work No. 4) and the seawater pump station (Work No. 15) including an underground, under river pressure pipeline crossing constructed in trench, in pre-placed sleeves or placed by trenchless methods where not below the bed of the river Wyre and placed by trenchless methods where below the bed of the river Wyre; all to be constructed not less than 1 metre below ground surface (or not less than 8 metres below the bed of the river Wyre where applicable) and not more than 10 metres below ground surface (or not more than 35 metres below the bed of the river Wyre where applicable) save where the brine discharge pipeline rises to interface with the booster pump station (Work No. 4) and the seawater pump station (Work No. 15).

Work No. 14— Twin 11kv power and control cables from the seawater pumping station (Work No 15) to the booster pump station and debrine facility (Work No 4), sleeves, service pipes, power and control cables laid in trench, in pre placed sleeves or placed by trenchless methods where not below the bed of the river Wyre and placed by trenchless methods where below the bed of the river Wyre; all to be constructed not less than 1 metre below ground surface (or not less than 8 metres below the bed of the river Wyre where applicable) and not more than 10 metres below ground surface (or not more than 35 metres below the bed of the river Wyre where applicable) save where the cables and sleeves rise to interface with the booster pump station (Work No. 4) and the seawater pump station (Work No. 15).

Work No. 15— A seawater pump station containing a wet well abstraction facility and multiple pumps connected to the fish dock by an existing culvert, a connection to the brine discharge pipeline and flow meters and monitoring systems for the brine discharge pipeline, the incorporation of filters into the existing water intake structure, extensions of those parts of the wash water pipelines, brine discharge pipelines, power and control cables comprised in Work Nos. 12, 13, 16A and 14 which link to elements of this Work No. 15, a bunded transformer compound, a mobile gantry crane and roller shutter doors, internal vehicular access routes, parking areas, pedestrian areas and landscaping, gated security fencing, close circuit television and intruder detection systems, lighting and drainage, temporary and permanent access from Amounderness Way via Dock Avenue and Herring Arm Road.

Work No. 16A— A brine discharge pipeline from seawater pump station (Work No. 15) to United Utilities treatment plant, approximate chainage 3445m to 2690m, including a pressure pipeline laid in trench or within a pre-existing sleeve beneath a newly constructed housing area road; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and temporary works compound and fencing adjacent to Amounderness Way and temporary access from Herring Arm, Road, Amounderness Way and Jameson Road.

Work No. 16B— A brine discharge pipeline from United Utilities treatment plant to Jameson Road approximate chainage 2690m to chainage 1960m, including a pressure pipeline laid in trench; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and temporary access from Jameson Road to a temporary works compound and temporary fencing.

Work No. 16C— A brine discharge pipeline from Jameson Road, approximate chainage 1960m, to the temporary works compound/pipe insertion and reception compound, approximate chainage 1820m, including a pressure pipeline laid in trench; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable) save where it crosses the former rail line adjacent to Jameson Road on a pipe bridge at ground surface (shown on drawing no. MMD-277663-C-DR-00-XX-0003); and a temporary works compound/pipe insertion, reception compound and fencing adjacent to Jameson Road and a fenced temporary access from Jameson Road.

Work No. 16D— A brine discharge pipeline from the Jameson Road temporary works compound, approximate chainage 1820m, to the temporary works compound/pipe insertion and reception compound, approximate chainage 1580m, including a pressure pipeline and sleeve laid by trenchless methods beneath Fleetwood Road and adjacent land; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and a temporary works compound/pipe insertion and reception compound and fencing, a temporary access road and fencing from the temporary works compound at approximate chainage 1580m to Fleetwood Road and any temporary subsidence monitoring stations within Fleetwood Road required by the highway authority.

Work No. 16E— A brine discharge pipeline from the temporary works compound/pipe insertion and reception compound, approximate chainage 1580m, to pipe insertion and reception compound, approximate chainage 1410m, including a pressure pipeline and sleeve laid by trenchless methods beneath Amounderness Way and adjacent land; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and a temporary works compound/pipe insertion and reception compound and fencing, a temporary access road and fencing from the temporary works compound at approximate chainage 1410m to Rossall Lane and any temporary subsidence monitoring stations within Amounderness Way required by the highway authority.

Work No.16F— A brine discharge pipeline from the temporary works compound/pipe insertion and reception compound, approximate chainage 1410m, to the temporary works compound/pipe insertion and reception compound, at approximate chainage 890m, including a pressure pipeline laid in trench; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and a temporary works compound/pipe insertion and reception compound and fencing adjacent to the Blackpool Tramway and temporary access and fencing to South Strand.

Work No. 16G— A brine discharge pipeline from the temporary works compound/pipe insertion and reception compound, approximate chainage 890m, to the temporary works compound/pipe insertion and reception compound, approximate chainage 770m, including a pressure pipeline and sleeve laid by trenchless methods beneath the Blackpool Tramway and adjacent land; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and a temporary works compound/pipe insertion and reception compound and fencing, a temporary access road and fencing from the temporary works compound at approximate chainage 770m to South Strand/Broadway and any temporary subsidence monitoring stations within the Blackpool Tramway required by Blackpool Borough Council.

Work No. 16H— A brine discharge pipeline from the temporary works compound/pipe insertion and reception compound, approximate chainage 770m, to the temporary works compound/pipe insertion and reception compound, approximate chainage 610m, including a pressure pipeline and sleeve laid by trenchless methods beneath the junction of Broadway, South Strand, the Strand and adjacent land; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and a temporary works compound/pipe insertion and reception compound and fencing, access from South Strand and any temporary subsidence monitoring stations within Broadway or South Strand required by the highway authority.

Work No. 16I— A brine discharge pipeline from the temporary works compound/pipe insertion and reception compound, approximate chainage 610m, to the temporary works compound at Rossall Promenade, approximate chainage 0.00m, including a pressure pipeline laid in trench; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and a temporary works compound and fencing on and adjacent to Rossall Promenade, temporary access and fencing to Fairway, temporary modifications or closures to existing public rights of way, car parking areas and access to the promenade.

Work No. 16J— A brine discharge pipeline within and adjacent to Rossall Promenade including a pressure pipeline laid in trench beneath the promenade; all to be constructed not less than 1 metre below ground surface and not more than 10 metres below ground surface, or affixed to the existing modified sea wall to descend to and beneath the foreshore to a depth of not less than 1 metre below the foreshore and not more than ten metres beneath the foreshore; and pipe protection where appropriate, all permanent or temporary, full or partial, removal of the existing promenade surfacing, access ramps and retaining walls from the landward and seaward sides of the promenade, modifications to and breaking through the sea wall to allow the passage of the pipeline beneath the promenade to the foreshore, modifications to the promenade rear flood wall including the provision of flood gates and the construction of an observation platform/shelter, including new steps, retaining walls and revetments to access the foreshore.

Work No. 16K— A brine discharge pipeline from the Rossall Promenade (sea wall) to approximately the mean low water mark, including a pressure pipeline laid in trench from and beneath the foreshore; all to be constructed not less than 1 metre below the surface of the foreshore and not more than 10 metres below the surface of the foreshore.

Work No. 16L— A brine discharge pipeline from approximately mean low water mark to the pipeline's termination at the single two-port diffuser, including a pressure pipeline laid in a backfilled trench beneath the sea bed from a seagoing vessel; all to be constructed not less than 1

metre below the sea bed and not more than 10 metres below the sea bed; and a single two-port diffuser fitted to distribute flows into the Irish Sea and all warning measures required to delineate the works area.

Work No. 17A— 132kv cables from the electric substation at the gas compressor compound (Work No. 3) to the south river crossing and splice pits laid in trench beneath Agglebys Road, Corcas Lane, the public highway linking High Gate Lane with Burrows Lane named as being part of High Gate Lane and Burrows Lane; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and splice pits situated in the vicinity of the river exit point, adjacent to Burrows Lane, Highgate Lane and Agglebys Road.

Work No. 17B— Twin sleeves and 132kv electricity cables from the south river temporary exit compound to the south river temporary entry compound; all to be constructed by trenchless methods not less than 8 metres below the bed of the river Wyre and not more than 35 metres below the bed of the river Wyre save where the electricity cables rise to enter the drive and reception pits at the limits of Work No. 17B; and temporary works sites at the under river entry and exit points containing drive and reception pits, temporary fencing and temporary access track from Burrows Lane.

Work No. 17C— Twin sleeves and 132kv electricity cables from the south river temporary entry compound to the 132kv grid substation operated by Electricity North West and located within the National Grid 400kv substation and switchyard at Stanah; all to be constructed by trenchless methods not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable) save where the electricity cables rise to enter the drive and reception pits situated at the limits of Work No. 17C; and sleeves and cables to be laid beneath the existing Flints caravan park and Hillilaid Pool, temporary works sites at the river exit points and within the Stanah Substation Switchyard, temporary access from River Road to the temporary compound, temporary fencing and connection to National Grid electricity infrastructure at the Stanah substation.

Work No. 18— 11kv electrical circuits from the electrical substation/switchyard at the gas compressor compound (Work No. 3) to the booster pump station (Work No. 4), including twin 11kv electric cables laid in trench crossing Footpaths 45, 61 and 42 and an unnamed watercourse designated as main river; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable) save where the circuits rise to interface with the electrical substation/switchyard at the gas compressor compound (Work No. 3) and the booster pump station (Work No. 4).

Work No. 19— Electrical control cables extending from the proposed electrical substation /switchyard at the gas compressor compound (Work No. 3) to the booster pump station (Work No. 4), including electrical control cables laid in trench and sleeves, crossing Footpaths 45, 61 and 42 and an unnamed watercourse designated as main river; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable) save where the circuits rise to interface with the electrical substation/switchyard at the gas compressor compound (Work No. 3) and the booster pump station (Work No. 4).

Work No. 20A— An interconnector gas pipeline from the gas compressor compound (Work No. 3) to the A588 Hall Gate Lane including a gas pressure pipeline laid in trench or by trenchless methods crossing Monks Lane, Back Lane, Hall Gate Lane and watercourses/drains; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable) save where the pipeline rises to interface with the gas compressor compound (Work No. 3); and temporary fencing, stock proof fencing, temporary access, temporary access roads and any temporary subsidence monitoring stations required by the highway authority.

Work No. 20B— An interconnector gas pipeline from the A588/Hall Gate Lane to Lancaster Road C308 including a gas pressure pipeline laid in trench or by trenchless methods crossing Footpath 31, Bridleway 29, White Lane, Shaws Lane, Footpath 34, Longwood Lane (New Lane), Lancaster Road C308 and watercourses/drains; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and temporary fencing, stock proof fencing, temporary access, temporary access roads and any temporary subsidence monitoring stations required by the highway authority.

Work No. 20C— An interconnector gas pipeline from Lancaster Road C308 to Bradshaw Lane C414 including a gas pressure pipeline laid in trench or by trenchless methods crossing Bradshaw Road C414, Ridgy Pool and other watercourses/drains; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and temporary fencing, stock proof fencing, temporary access, temporary access roads and any temporary subsidence monitoring stations required by the highway authority.

Work No. 20D— An interconnector gas pipeline from Bradshaw Lane C414 to Bone Hill Lane including a gas pressure pipeline laid in trench or by trenchless methods crossing Footpath 39 and Bone Hill Lane; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and temporary fencing, stock proof fencing, temporary access, temporary access roads and any temporary subsidence monitoring stations required by the highway authority.

Work No. 20E— An interconnector gas pipeline from Bone Hill Lane to Black Lane C436 including a gas pressure pipeline laid in trench or by trenchless methods crossing Black Lane; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and temporary fencing, stock proof fencing, temporary access, temporary access roads and any temporary subsidence monitoring stations required by the highway authority.

Work No. 20F— An interconnector gas pipeline from Black Lane C436 connecting to metering station including a gas pressure pipeline laid in trench or by trenchless methods, crossings of other ordinary watercourses/drains, temporary fencing, stock proof fencing; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable) save where the pipeline rises to interface with metering station (Work. No. 21); and temporary access, temporary access roads and any temporary subsidence monitoring stations required by the highway authority.

Work No. 20G— An interconnector gas pipeline connecting from metering station (Work No. 21) National Grid feeder main No. 21 to Station Lane including a gas pressure pipeline laid in trench or by trenchless methods crossing Station Lane and watercourses/drains; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable) save where the pipeline rises to interface with metering station (Work. No. 21); and temporary fencing, stock proof fencing, temporary access and temporary access roads.

Work No. 20H— An interconnector gas pipeline from Station Lane connecting to National Grid feeder main No. 15 including a gas pressure pipeline laid in trench or by trenchless methods crossing Station Lane, Footpath No. 4 and Footpath No. 2 and watercourses/drains; all to be constructed not less than 1 metre below ground surface (or below bed of watercourse where applicable) and not more than 10 metres below ground surface (or below bed of watercourse where applicable); and temporary fencing, stock proof fencing, temporary access and temporary access roads.

Work No. 21— An interconnector gas pipeline metering station including a gas metering station containing underground pipework, a metering station instrument building, above ground valves and pipework, a pipe pig reception/insertion area, an area reserved for extension of the facility,

extensions of those parts of the interconnector gas pipeline comprised in Work Nos. 20F and 20G which link to elements of this Work No. 21, temporary access tracks and turning areas adjacent to the NTS Feeder 21 control valve station and an access track to Station Lane and security fencing and landscaping.

In connection with the above Work Nos. further associated development within the Order limits consisting of—

(a) mechanical, electrical and telecommunications equipment and the provision of utilities services;

(b) ramps, means of access, footpaths and bridleways;

(c) embankments, shafts, foundations, retaining walls, drainage, valves, air valves, washout valves, stopcocks and other pipe fittings, fencing and culverts;

(d) works to alter the course of, or otherwise interfere with a watercourse other than a navigable watercourse;

(e) works to construct pipelines and to remove or alter the position of apparatus including mains, sewers, drains and cables;

(f) landscaping, ecological mitigation works and other works to mitigate any adverse effects of the construction, maintenance or operation of the authorised development;

(g) works for the benefit or protection of land affected by the authorised development;

(h) works required for the strengthening, improvement, maintenance or reconstruction of any streets;

(i) works to install subsidence monitoring systems and equipment where any subsidence to existing brine caverns may affect any part of the authorised development; and

(j) such other works, including working sites and works of demolition as may be necessary to expedite for the purposes of or in connection with the construction of the authorised development and which fall within the scope of the environmental statement.

SCHEDULE 2

Article 9

STREETS SUBJECT TO STREET WORKS

(1) *Area*	*(2)* *Subject to street works*
County of Lancashire, Borough of Wyre	For the purposes of Work Nos. 1A and 1B, Work Nos. 2 to 5 inclusive and Work Nos. 8 to 11 inclusive— Footpath 42 (Preesall) Footpath 43 (Preesall) Footpath 45 (Preesall) Footpath 46 (Preesall) Footpath 61 (Preesall) Footpath 53 (Preesall) Monks Lane (Unadopted) (drawing nos. MMD-277663-C-DR-00-XX-0005, 0006, 0007 and 0015), where crossed by the authorised development within the Order limits
County of Lancashire, Borough of Wyre	For the purposes of Work No. 6— A588 Hall Gate Lane (Adopted Classified Road) Back Lane (Adopted unclassified Road) (drawing nos. MMD-277663-C-DR-00-XX-0010 and 0016), where crossed by the authorised development within the Order limits
County of Lancashire, Borough of Wyre	For the purposes of Work No. 7— Monks Lane (Unadopted) (drawing no. MMD-277663-C-DR-00-XX-0010), where crossed by the authorised development within the Order limits
County of Lancashire, Borough of Wyre	For the purposes of Work No. 13— Unnamed track adjacent to Fleetwood Fish Dock. (drawing no. MMD-277663-C-DR-00-XX-0004), where crossed by the authorised development within the Order limits
County of Lancashire, Borough of Wyre	For the purposes of Work No. 15— Herring Arm Road (drawing no. MMD-277663-C-DR-00-XX-0004), where crossed by the authorised development within the Order limits
County of Lancashire, Borough of Wyre	For the purposes of Work Nos. 16A to 16L inclusive— Jameson Road (Adopted Unclassified) Rossall Lane B5409, Wyre Way (Adopted classified) South Strand (Adopted Unclassified) Broadway A587 (Adopted classified) Broadway Playing Field Entrance (Adopted unclassified) Fairway/Westway (Adopted Unclassified) Rossall Promenade

(1) *Area*	*(2)* *Subject to street works*
	(drawing nos. MMD-277663-C-DR-00-XX-0002 and 0003), where crossed by the authorised development within the Order limits
County of Lancashire, Borough of Wyre	For the purposes of Work Nos. 17A, 17B and 17C— Agglebys Road Corcas Lane Bridleway 2a (Stalmine-with-Staynall) High Gate Lane, linking High Gate Lane with Burrows Lane (Adopted unclassified) Footpath 13 (Fleetwood) River Road (Adopted unclassified) (drawing nos. MMD-277663-C-DR-00-XX-0010, 0012 0013 and 0015), where crossed by the authorised development within the Order limits
County of Lancashire, Borough of Wyre	For the purposes of Work No. 18— Footpath 42 (Preesall) Footpath 45 (Preesall) Footpath 61 (Preesall) (drawing nos. MMD-277663-C-DR-00-XX-0005 and 0007), where crossed by the authorised development within the Order limits
County of Lancashire, Borough of Wyre	For the purposes of Work No. 19— Footpath 42 (Preesall) Footpath 43 (Preesall) Footpath 45 (Preesall) Footpath 61 (Preesall) Footpath 53(Preesall) Monks Lane (Unadopted) (drawing nos. MMD-277663-C-DR-00-XX-0005 and 0007), where crossed by the authorised development within the Order limits
County of Lancashire, Borough of Wyre	For the purposes of Work Nos. 20A to 20H inclusive— A 588 Hall Gate Lane (Adopted classified) Footpath 31 (Preesall) Bridleway 29 (Nateby) White Lane (Unadopted) Shaws Lane, Footpath 34 (Pilling) (Unadopted) Longwood Lane (New Lane) Lancaster Road C305 (Adopted classified) Bradshaw Lane C414 (Adopted classified) Footpath 39 (Pilling) Bonehill Lane (Adopted unclassified) Black Lane C436 (Adopted classified) Bridleway 1 (Nateby) Station Lane (Adopted unclassified) Footpath 4 (Nateby)

(1) *Area*	*(2)* *Subject to street works*
	(drawing nos. MMD-277663-C-DR-00-XX-0016, 0017, 0018, 0019, 0020, 0021 and 0022), where crossed by the authorised development within the Order limits.

SCHEDULE 3

Article 10

STREETS SUBJECT TO ALTERATION OF LAYOUT

(1) *Area*	*(2)* *Street subject to alteration of layout*	*(3)* *Description of alteration*
County of Lancashire, Borough of Wyre	The A588 Hall Gate Lane in Preesall Lancashire	Widening of the existing adopted highway (classified road), and the creation of a left turn lane for northbound traffic wishing to enter the new private access road (Schedule 1, Work No. 6 and Work No. 7), between points AA and BB on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0216)
County of Lancashire, Borough of Wyre	Back Lane Preesall, Lancashire	Formation of two junctions with Back Lane to carry the private access road across the existing adopted highway to the gas compressor compound (Schedule 1, Work No. 6 and Work No. 7), between points M and N on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0210)

SCHEDULE 4

Article 12

STREETS AND RIGHTS OF WAY TO BE TEMPORARILY STOPPED UP

(1) *Area*	*(2)* *Street to be temporarily stopped up*	*(3)* *Extent of temporary stopping up*
County of Lancashire, Borough of Wyre,		For the purposes of Work Nos. 1A and 1B, Work Nos. 2 to 5 inclusive, Work Nos. 8 to 11 inclusive and Work nos. 18 and 19—
	Footpath 42 (Preesall)	For a distance of 70m measured along the length of the footpath between points A and B on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0205)
	Footpath 45 (Preesall) and Footpath 43 (Preesall)	For a distance of 40m measured along the length of the footpath between points C and D and I and J on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0207)
	Footpath 61 (Preesall)	For a distance of 20m measured along the length of the footpath between points E and F and G and H on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0207)
County of Lancashire, Borough of Wyre	Back Lane	For the purposes of Work No. 6 and Work No. 20A— Between points M and N on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0210)
County of Lancashire, Borough of Wyre	Monks Lane	For the purposes of Work No. 7 and Work No. 17A— Between its junction with Back Lane to the Westerly limit of the gas compressor compound between points Q1 to R1 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0210)
County of Lancashire, Borough of Wyre	Unnamed track adjacent to Fleetwood Fish Dock (Private access)	For the purposes of Work No. 13— Between the sea water pumping station and the dock edge between points Q2 and R2 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0204)
County of Lancashire, Borough of Wyre		For the purposes of Work No. 16A to 16L inclusive—
	Rossall Promenade (Footpath 12 (Fleetwood))	From the access point from Fairway to the Order limits between points S1, T1 and U1 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0202)

(1) *Area*	*(2)* *Street to be temporarily stopped up*	*(3)* *Extent of temporary stopping up*
	Wyre Way Adjacent to B5049	For the width of the proposed temporary access track between points V1 and W1 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR- 00-XX-0203)
County of Lancashire, Borough of Wyre		For the purposes of Work Nos. 17A to 17C inclusive—
	Agglebys Road	Between points K and L on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0210)
	Bridleway 2a (Stalmine-with-Staynall)/Corcas Lane	Between points Q and P on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0212)
	High Gate Lane linking High Gate Lane with Burrows Lane (Adopted unclassified)	Between points T and T2 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0213)
	Burrows Lane (Adopted unclassified)	Between points R and S on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0213)
County of Lancashire, Borough of Wyre		For the purposes of Work No. 19—
	Footpath 42 (Preesall)	Between points A and B on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0205).
	Footpath 45 (Preesall)	Between points C and D on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0207)
	Footpath 61 (Preesall)	Between points E and F on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0207)
County of Lancashire, Borough of Wyre		For the purposes of Work Nos. 20A to 20H inclusive—
	Footpath 31 (Preesall)	Between points U and V on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0216)
	Bridleway 29 (Preesall)	Between points W and X on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0217)
	White Lane	Between points Y and Z on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0217)
	Shaws Lane (Footpath 34 (Pilling))	Between points A1 and B1 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0217)

(1) *Area*	*(2)* *Street to be temporarily stopped up*	*(3)* *Extent of temporary stopping up*
	Longwood Lane (New Lane)	Between points C1 and D1 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0218)
	Lancaster Road	Between points C2 and D2 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0218)
	Bradshaw Lane	Between points E1 and F1 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0219)
	Footpath 39 (Pilling)	Between points E2 and F2 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0220)
	Bone Hill Lane	Between points G1 and H1 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0220)
	Black Lane	Between points I1 and J1 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0221)
	Station Lane	Between points K1 and L1 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0222)
	Footpath 4 (Nateby)	Between points M1 and N1 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0222)
	Bridleway 1 (Nateby)	Between points K2 and K1 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0222)
	Footpath 2 (Nateby)	Between points O1 and P1 on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0223)

SCHEDULE 5

Article 13

ACCESS TO WORKS

(1) *Area*	*(2)* *Description of access*
County of Lancashire, Borough of Wyre	**Permanent Access to Works** **Preesall, main access private road to A588 formed within Work No. 6** Access from the A588 Hall Gate Lane opposite Moss House Lane as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0216) **Preesall, secondary access/road crossing formed within Work No. 6** Access from Back Lane approximately 95m south of Monks Lane as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0210) **Pressall, emergency access to works area from Acres Road** Access from Acres Road approximately 90m west of Acre House as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0208) **Fleetwood Fish Dock** Access to seawater pump station, connection to Herring Arm Road and Dock Avenue within the Fleetwood Fish Dock as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0204)
County of Lancashire, Borough of Wyre	**Temporary Access to Works** **Preesall, access to works area from A588 formed within Work No. 6** Access from the A588 Hall Gate Lane opposite Moss House Lane as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0216) **Preesall, secondary access/road crossing formed within Work No. 6** Access from Back Lane approximately 95m south of Monks Lane as shown on the access and tempuorary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0210) **Fleetwood Fish Dock** Access to seawater pump station, connection to Herring Arm Road within the Fleetwood Fish Dock as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0204) **Fleetwood Fish Dock to Work No. 16A** Access from Herring Arm Road within the Fleetwood Fish Dock as shown on the access and temporary stopping up plans (drawing no.

(1) *Area*	*(2)* *Description of access*
	MMD-277663-C-DR-00-XX-0204) **Fleetwood, Jameson Road two access points to Work Nos. 16B, 16C and 16D** Access from Jameson Road to the temporary works compound close to the disused railway, as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0203) Access from Jameson Road to the temporary works compound sited approximately 90m west of the disused railway, as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX -0203) **Fleetwood, Fleetwood Road to Work Nos. 16D and 16E** Access from Fleetwood Road to the temporary work compound and works. The access is situated approximately 100m south east of its junction (roundabout) with Amounderness Way, as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0203) **Fleetwood, Rossall Lane to Work Nos. 16E and 16F** Access from Rossall Lane to the temporary works compound north of Rossall Lane. The access is situated approximately 25m west of the junction with Amounderness Way, as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX -0203) **Fleetwood, South Strand to Work No. 16F** Access from South Strand access to field area. The access is situated approximately 230m south west of its junction with Broadway, as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0202) **Fleetwood, South Strand to Work Nos. 16G and 16H** Access from South Strand to the works compound situated adjacent to South Strand/Broadway. The access is situated at the junction of South Strand with Broadway, as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0202) **Rossall Promenade, Fairway/Westway to Work Nos. 16I, 16J, 16K and 16L** Access from Fairway/ Westway at the point of the existing access to the promenade/car parking areas, as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0202) **Preesall, Agglebys Road to Work No. 17A** Access from Agglebys Road at a point approximately 20m to the west of its junction with Back Lane as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0210) **Preesall, Corcas Lane to Work No. 17A** Access to work from Corcas Lane at a point approximately 20m west

(1) *Area*	*(2)* *Description of access*
	of its junction with Back Lane as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0212) **Preesall, High Gate Lane linking Burrows Lane to High Gate Lane to Work No. 17A** Access to work from High Gate Lane at a point approximately 180m east of its junction with Burrows Lane as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0213) **Preesall, Burrows Lane to Work No. 17A** Access to work from Burrows Lane at a point approximately 350m south of its junction with High Gate Lane as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0213) **Preesall, Burrows Lane to Work Nos. 17A and 17B, temporary works compound** Access to work from Burrows Lane at a point approximately 1040m south of its junction with High Gate Lane as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0214) **Preesall, Burrows Lane to Work Nos. 17A and 17B, temporary works compound** Access to work from Burrows Lane at a point approximately 300m north west of its junction with Staynall Lane as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0214) **Thornton-Clevelys, Stanah Substation, River Road to Work No. 17C** Access from River Road via two existing access roads serving a caravan park and the Stanah Substation as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0215) **Preesall, Access from A588 Hall Gate Lane to Work No. 20B Interconnector Gas Main** Access from the A588, High Gate Lane approximately 40m north of Moss House Lane as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0216) **Pilling Moss, Lancaster Road to Work No. 20B and Work No. 20C** Access from Lancaster Road approximately 125m north of Bankfield as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0218) **Pilling Moss, Bradshaw Lane to Work No. 20C and 20D** Access from Bradshaw Lane approximately 110m east of Ridgy Pool as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0219)

(1) *Area*	*(2)* *Description of access*
	Pilling Moss, Bone Hill Lane to Work No. 20D and 20E Access from Bone Hill Lane approximately 200m south east of Bone Hill Farm as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0220) **Nateby Moss, Black Lane to Work Nos. 20E, 20F and 21** Access to work from Black Lane at a point approximately 100m north BAP habitats west of its junction with Footpath No. 6 as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0221) **Nateby, Station Lane to Work No. 20H and 20G** Access from Station Lane via existing access roads serving the National Grid gas compound at Black Wood approximately 175m south of the Orchard as shown on the access and temporary stopping up plans (drawing no. MMD-277663-C-DR-00-XX-0222)

SCHEDULE 6

Article 23

LAND OF WHICH TEMPORARY POSSESSION MAY BE TAKEN

(1) *Area*	*(2)* *Number of land shown on land plans*	*(3)* *Purpose for which temporary possession may be taken*	*(4)* *Relevant part of the authorised development*
Lancashire County Council Wyre Borough Council	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 15, 16, 17, 18, 19, 20, 21, 22, 26, 27, 28, 29, 31, 32, 33, 35, 37, 38, 39, 40, 45, 46, 47, 48, 51, 52, 61, 62, 63, 64, 65, 66, 67, 69, 70, 71, 73, 74, 75, 77, 79, 80, 80a, 80b, 81, 82, 83, 85, 86, 87, 88, 89, 90, 91, 93, 94, 95, 96, 97, 98, 99, 101, 102, 104, 105, 108, 110, 111, 114, 115, 117, 118, 119, 123, 124, 125, 127, 129, 130, 131, 132, 133, 134, 135, 136, 137, 142, 143, 144, 147, 148, 149, 150, 151, 152, 153, 154, 155, 157, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 184, 185, 186, 188, 189, 190, 191, 192, 193, 194, 195, 196, 198, 199, 200, 202, 203, 204, 206, 207, 208, 209, 210, 211, 214 and 215	Construction and carrying out of the authorised development; worksite for construction and carrying out of the authorised development	Work Nos. 1A, 1B, 2A, 2B, 2C, 2D, 2E, 2F, 2G, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16A, 16B, 16C, 16D, 16E, 16F, 16G, 16H, 16I, 16J, 16K, 16L, 17A, 17B, 17C, 18, 19, 20A, 20B, 20C, 20D, 20E, 20F, 20G, 20H and 21
Lancashire County Council Wyre Borough Council	14, 23, 24, 25, 30, 34, 36, 41, 42, 43, 44, 49, 50, 54, 58, 109, 112, 113, 116, 120, 121, 122, 126, 128, 158, 159, 160, 161, 183, 187, 197, 201 and 212	Construction and carrying out of the authorised development; worksite and access for construction of the authorised development	Works Nos. 6, 16A, 16B, 16C, 16D, 16E, 16F, 16H, 16I,17A, 17B, 17C, 20A, 20B, 20C, 20D, 20E, 20F, 20G and 20H

SCHEDULE 7

Article 35

DEEMED MARINE LICENCE UNDER PART 4 (MARINE LICENSING) OF THE MARINE AND COASTAL ACCESS ACT 2009

PART 1

Interpretation

1.—(1) In this Schedule—

"the 2009 Act" means the Marine and Coastal Access Act 2009(**a**);

"authorised development" means the development and associated development described in Schedule 1 (authorised development) and any other development authorised by this Order, which is development within the meaning of section 32 of the 2008 Act;

"commencement" means beginning to carry out any material operation (as defined in section 155 of the 2008 Act) other than operations consisting of marine and benthic surveys, archaeological investigations and investigations for the purpose of assessing ground and geological conditions and "commence" and "commenced" shall be construed accordingly;

"environmental statement" means the document certified as the environmental statement by the Secretary of State for the purposes of this Order;

"key BAP habitats" means the Sabellaria alveolata reef;

"licence conditions" means the licence conditions set out at paragraphs 2 to 42;

"licence holder" means the "undertaker" as defined in Article 2 (interpretation) of this Order to whom this licence is issued;

"licensed activity" means an activity described in paragraph 8 of this licence;

"licensed location" means the area bounded by the coordinates set out at paragraph 9 of this licence;

"licensed works" means any works constructed in the course of a licensed activity;

"licensing authority" means the Secretary of State;

"maintenance" includes maintain, inspect, repair, adjust, alter, remove, clear, refurbish, reconstruct, decommission, demolish, replace and/or improve;

"MMO" or "the Marine Management Organisation" means the body created under the 2009 Act responsible for the monitoring of this licence or any successor to its statutory functions;

"pipeline" means the brine discharge pipeline comprised in the licensed works;

"sea bed" means the solid surface of the earth which lies under the sea;

"UK marine area" has the same meaning as that given at section 42 (UK marine area) of the 2009 Act;

"vessel" means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

"working day" means a day which is not a Saturday, Sunday, Bank Holiday or other public holiday.

(**a**) 2009 c.23.

(2) Unless otherwise indicated all geographical co-ordinates contained within this licence shall be taken to be latitude and longitude degrees and minutes to three decimal places.

(3) Except where otherwise indicated—

(a) the point of contact with the MMO shall be at its main office(**a**); and

(b) details for contact with the MMO's marine pollution response team shall be at its main office(**b**).

Licence validity period

2.—(1) This licence is valid from the licence commencement date until the licence termination date.

(2) For the purposes of this licence—

(a) the "licence commencement date" means the date on which this Order is made; and

(b) the "licence termination date" means an indefinite period unless a licensed activity has not been commenced by the fifth anniversary of the licence commencement date, in which case it means the fifth anniversary of the licence commencement date.

Inspection of records etc.

3. The licence holder shall—

(a) permit any person who is appointed by the MMO for the purpose to inspect, and make notes from, all books, papers, maps and other records of any kind kept by the licence holder in pursuance of this licence or in connection with activities associated with this licence; and

(b) furnish that person at reasonable times with such information at reasonable times with such reasonable assistance as may be requested by that person in connection with or arising out of an inspection in pursuance of this paragraph.

Rights of access

4. Any person authorised by the MMO shall be entitled at all reasonable times to enter into and upon any of the licence holder's installations, vessels or equipment used or to be used in connection with the activities authorised by this licence in accordance with Chapter 2 of Part 8 (common enforcement powers) of the 2009 Act.

Transfer

5. In the application of section 72 of the 2009 Act to this licence, subsection 72(8) of the 2009 Act shall not apply to a transfer made in accordance with article 8 (transfer of benefit of Order) of this Order.

Force majeure

6.—(1) If by reason of force majeure any substances or articles are deposited or removed otherwise than at the licensed location then the licence holder shall notify the MMO of the full details of the circumstances of that deposit within 48 hours of the incident occurring.

(2) For the purposes of this paragraph, "force majeure" means when, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit substances or

(**a**) Contact details for the main office of the MMO are Marine Management Organisation, Inshore Marine Licensing, Lancaster House, Hampshire Court, Newcastle upon Tyne, NE4 7YH; telephone 0300 123 1032; fax: 0191 376 2681; and email: infrastructure@marinemanagement.org.uk.

(**b**) Contact details for the main office of the MMO's Marine Pollution response team are Marine Management Organisation, Marine Pollution Response Team, Lancaster House, Hampshire Court, Newcastle upon Tyne, NE4 7YH; telephone 0870 785 1050 or 07770 977825; and email: dispersants@marinemanagement.org.uk.

articles otherwise than at the licensed location because the safety of human life or the vessel is threatened.

Licence conditions binding other parties

7. The licence conditions shall bind any person who for the time being owns, occupies or enjoys any use of the licensed works.

PART 2

Licensed activities

8. Subject to the licence conditions this licence authorises the licence holder (and any agent, contractor or subcontractor acting on its behalf) to—

(a) carry out those elements of—

(i) Work No. 1A;

(ii) Work No. 1B;

(iii) Work No. 15;

(iv) Work No. 16J;

(v) Work No. 16K; and

(vi) Work No. 16L.

of Schedule 1 (authorised development) of this Order, and of any further associated development listed at items (a) to (j) in Schedule 1 in connection with those Work Nos., which fall within the UK marine area and constitute licensable marine activities under section 66 of the 2009 Act; and

(b) undertake a borehole survey in connection with the installation of the brine outfall pipeline comprised within the licensed activities set out at paragraph (a), the purpose of which would be to inform the micro-siting of the pipeline and to determine if there are any archaeological remains or there is any palaeoenvironmental evidence present which could be directly affected by such pipeline installation.

Licensed location

9. The licence holder (and any agent, contractor or subcontractor acting on its behalf) may engage in the licensed activities in the area bounded by the following coordinates—

Latitude	*Longitude*
Work Nos. 16J, 16K, 16L and borehole surveys	
N 53 53.986	W 3 05.095
N 53 54.035	W 3 03.029
N 53 53.985	W 3 03.015
N 53 53.987	W 3 02.907
N 53 54.081	W 3 02.927
N 53 54.077	W 3 03.041
N 53 54.067	W 3 03.038
N 53 54.018	W 3 05.096

Latitude	*Longitude*
	Work No. 15
N 53 54.774	W 3 00.799
N 53 54.798	W 3 00.768
N 53 54.819	W 3 00.823
N 53 54.793	W 3 00.855
N 53 54.802	W 3 00.869
N 53 54.791	W 3 00.858
N 53 54.770	W 3 00.883
N 53 54.755	W 3 00.889
N 53 54.755	W 3 00.880
N 53 54.769	W 3 00.827
	Work Nos. 1A and 1B
N 53 54.759	W 2 59.541
N 53 54.758	W 2 59.618
N 53 54.745	W 2 59.705
N 53 54.658	W 2 59.780
N 53 54.654	W 2 59.789
N 53 54.590	W 2 59.771
N 53 54.501	W 2 59.767
N 53 54.348	W 2 59.635
N 53 54.347	W 2 59.641
N 53 54.212	W 2 59.528
N 53 54.210	W 2 59.519
N 53 54.204	W 2 59.502
N 53 54.186	W 2 59.468
N 53 54.187	W 2 59.434
N 53 54.195	W 2 59.426
N 53 54.201	W 2 59.413
N 53 54.215	W 2 59.351
N 53 54.303	W 2 59.196
N 53 54.440	W 2 59.071

Reporting of engaged agents, contractors or sub-contractors

10.—(1) The licence holder shall notify the MMO in writing of any agents, contractors or sub-contractors that will be carrying out the licensed activities on behalf of the licence holder no less than 5 working days before the commencement of that activity.

(2) The licence holder shall ensure that a copy of this licence and any subsequent revisions or amendments has been read and understood by any agents, contractors or sub-contractors that will be carrying out the licensed activities on behalf of the licence holder.

Notification of vessels

11.—(1) The licence holder shall ensure that the MMO is provided with notification of any vessel being used to undertake the licensed activities no less than 24 hours before that vessel first commences licensed activities.

(2) The licence holder shall ensure that a copy of this licence and any subsequent revisions or amendments has been read and understood by the masters of any vessel being used to undertake any licensed activity, and that a copy of this licence is held on board any such vessel.

Distribution of copies

12.—(1) The licence holder shall ensure that a copy of this licence and any subsequent revisions or amendments made to it in accordance with section 72 (variation, suspension, revocation and transfer) of the 2009 Act are given to—

(a) any agent, contractor or subcontractor undertaking a licensed activity;

(b) the master of any vessel undertaking a licensed activity;

(c) the transport manager responsible for any vehicle undertaking a licensed activity.

(2) The licence holder shall keep a copy of this licence at its registered address.

PART 3

Application of licence conditions

13.—(1) Reference to licensed activities in paragraphs 15 and 18 to 42 shall not include the undertaking of the borehole survey referred to at paragraph 8(b), unless the MMO (following a review of the method statement submitted in respect of such survey pursuant to paragraph 17) notifies the licence holder otherwise.

(2) Paragraphs 15 to 42 shall not apply to—

(a) Work Nos. 1A and 1B of Schedule 1 (authorised development) of the Order; or

(b) any part of Work No. 15 of Schedule 1 (authorised development) other than the incorporation of filters into the existing water intake structure comprised in that Work No.

Licence conditions prior to commencement of the licensed activities

14. The licence holder shall, unless otherwise agreed in writing with the MMO, within ten working days of receipt of a copy of this licence notify the MMO that it accepts the terms and conditions of this licence; and no licensed activities may be carried out until that notice has been given.

15. No licensed activities shall commence until a written scheme setting out all the stages of the licensed activities and a list of all proposed licensed activities additional to those listed at paragraphs 8(a)(i) to 8(a)(vi) (if any), have been submitted to and approved by the MMO.

16. The licence holder shall, unless otherwise agreed in writing with the MMO, no less than ten working days prior to the commencement of any stage of the licensed activities notify the MMO of the proposed commencement date of that stage; and no stage of the licensed activities may be carried out until notice for that stage has been given.

17.—(1) The licence holder shall no less than two months prior to the commencement of any stage of the licensed activities submit to the MMO a method statement for that stage, the scope of which is to be agreed by the MMO prior to its submission; and no stage of the licensed activities may commence until the method statement for that stage has been approved in writing by the MMO.

(2) The licence holder shall carry out any stage of licensed activities in accordance with the approved method statement for that stage.

18.—(1) The licence holder shall prior to the commencement of any stage of the licensed activities carry out a marine benthic ecology and habitats survey for that stage.

(2) The scope of any marine benthic ecology and habitats survey shall be agreed with the MMO in writing prior to it being carried out.

(3) Any report arising from any marine benthic ecology and habitats survey and any necessary monitoring requirements shall be agreed in writing with the MMO prior to the commencement of

the stage of the licensed activities to which that survey relates; and no stage of the licensed activities may commence until such monitoring requirements (if any) for that stage and any amendments to the licence conditions (if required by the MMO) have been agreed.

19.—(1) The licence holder shall prior to the commencement of any stage of the licensed activities agree in writing with the MMO a vessel movement plan for that stage; and no stage of the licensed activities may commence until such a plan for that stage has been agreed.

(2) The licence holder shall carry out the licensed activities in accordance with the approved vessel movement plan, unless otherwise agreed in writing by the MMO.

20.—(1) The licence holder shall prior to the commencement of any stage of the licensed activities agree in writing with the MMO a construction monitoring plan (or, if so agreed with the MMO, construction monitoring plans) for that stage; and no stage of the licensed activities may commence until such a plan or plans for that stage have been agreed.

(2) Any construction monitoring plan shall include but not be limited to a pre-construction, construction and post-construction plan for monitoring the laying of the pipeline, consisting of trawl surveys within the transshipment area and barge approach routes for the delivery of rock armouring, and surveys of the pipeline corridor to ensure that the pipeline does not become exposed.

(3) The licence holder shall carry out any stage of the licensed activities in accordance with any approved construction monitoring plan for that stage.

21.—(1) The licence holder shall no less than six weeks prior to the transshipment of rock armouring comprised in any stage of the licensed activities submit a method statement relating to such transhipment for that stage, including details of the location of the transshipment area and barge approach routes for the delivery of rock armouring; and no stage of the licensed activities may commence until such a method statement for that stage has been approved in writing by the MMO.

(2) The licence holder shall carry out any stage of the licensed activities in accordance with the rock armouring transhipment method statement approved for that stage.

22.—(1) The licence holder shall prior to the commencement of any stage of the licensed activities agree with the MMO the lighting and marking of the licensed works comprised in that stage.

(2) The details of such lighting and marking shall be included in the method statement to be submitted for approval under paragraph 17.

23.—(1) The licence holder shall prior to the commencement of any stage of the licensed activities notify local mariners' and fishermen's organisations of that commencement by procuring issue of a notice to mariners; and no stage of the licensed activities may commence until such notice for that stage has been given.

(2) For the purposes of this paragraph, "notice to mariners" includes any notice to mariners issued by the Admiralty, Trinity House, Queen's harbourmasters, government departments or harbour or pilotage authorities.

24.—(1) The licence holder shall prior to the commencement of any stage of the licensed activities, following consultation with English Heritage, submit to the MMO for that stage a written scheme of investigation of areas of archaeological interest; and no stage of the licensed activities may commence until the written scheme of investigation for that stage has been approved in writing by the MMO.

(2) In undertaking any stage of the licensed activities, the licence holder shall act in accordance with the written scheme of investigation approved for that stage (if any).

Licence conditions during construction of the licensed works

25. The licence holder shall minimise the re-suspension of sediment during any stage of construction of the licensed works. Details of how this is to be achieved shall be included in the method statement for that stage to be submitted for approval under paragraph 17.

26.—(1) The licence holder shall in the course of any stage of construction of the licensed works take appropriate steps to minimise damage to the foreshore, including to key BAP habitats so far as they are located on the foreshore. Details of such steps, and for steps to identify damage caused (if any) by the construction of the licensed works to key BAP habitats so far as they are located on the foreshore, shall be included in the method statement for that stage to be submitted for approval under paragraph 17.

(2) For the purposes of this paragraph, "the foreshore" means land which is covered and uncovered by the ordinary movement of the tide.

27. The licence holder shall in the course of construction of any stage of the licensed works ensure that the pipeline, anchoring and rock armouring (if present during construction of that stage) are fully covered and do not protrude above the seabed. Details of the necessary steps shall be included in the method statement for that stage to be submitted for approval under paragraph 17.

28. The licence holder shall in the course of construction of any stage of the licensed works only access the licensed location within a defined and marked out area which shall be set out in the method statement to be submitted for approval for that stage under paragraph 17, thereby limiting personnel and plant access to the licensed location.

29.—(1) The licence holder shall in the course of construction of the licensed works fit diffusers to the discharge end of the pipeline, unless otherwise agreed in writing by the MMO.

(2) The details of such diffusers shall be included in the method statement to be submitted for approval under paragraph 17.

30.—(1) The licence holder shall in the course of construction of the licensed works ensure that all chemicals utilised are selected from the list of notified chemicals assessed for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002(**a**) or has gone through a similar level of ecotoxicological hazard or risk assessment.

(2) The licence holder shall obtain from the MMO prior written approval for the use of drilling fluids other than water-based mud for carrying out drilling operations comprised in any stage of the licensed activities.

(3) The licence holder shall comply with any guidance provided to it by the MMO in relation to the disposal of any arisings resulting from drilling operations using drilling fluids other than water-based mud.

31.—(1) The licence holder shall in the course of construction of the licensed works ensure that any coatings or treatments are suitable for use in the marine environment and are used in accordance with best environmental practice.

(2) For the purposes of this paragraph, "best environmental practice" means best environmental practice as defined in Appendix 1 of the 1992 OSPAR Convention of the Protection of the Marine Environment of the North-East Atlantic.

32. The licence holder shall in the course of construction of the licensed works, unless otherwise agreed in writing by the MMO, ensure that a soft-start procedure is used, whereby pile power is incrementally increased over a time period of not less than twenty minutes until full operational power is achieved. In the event that piling ceases for a period greater than ten minutes, the soft-start procedure shall be repeated.

33.—(1) The licence holder shall in the course of construction of the licensed works install bunding and/or storage facilities to contain and prevent the release of fuel, oils, and chemicals associated with plant, refuelling and construction equipment into the marine environment.

(2) There shall be containment facilities secondary to the bunding or storage facilities described in sub-paragraph (1).

(**a**) S.I. 2002/1355; amended by S.I. 2005/2055; 2010/1513; 2011/78; and 2011/982.

(3) The capacity of those secondary containment facilities shall not be less than 100% of the storage capacity of the bunding or storage facilities described in sub-paragraph (1).

34. The licence holder shall ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO's Marine Pollution Response Team by email or by telephone.

35. The licence holder shall in the course of construction of the licensed works ensure that during the works all waste is stored in designated areas which are isolated from surface water drains, open water and bunded to contain any spillages.

36.—(1) The licence holder shall in the course of construction of the licensed works ensure that no waste concrete slurry or wash water from concrete or cement works is discharged into the marine environment.

(2) Concrete and cement mixing shall, unless otherwise agreed in writing by the MMO, be contained and sited at least ten metres from any watercourse or surface water drain.

(3) For the purposes of this paragraph "watercourse" includes all rivers, streams, ditches, drains, canals, cuts, culverts, dykes, sluices, sewers and passages through which water flows except a public sewer or drain.

37. The licence holder shall ensure that any vessels used for rock transhipment or delivery operations—

(a) are suitably constructed and loaded to prevent rock falling over the side; and

(b) use suitable screening to prevent the loss of rock or shingle through drainage holes.

38. The licence holder shall ensure that any rock misplaced or lost below the level of mean high water springs in the course of construction of the licensed works is reported to the MMO within 48 hours and located and recovered within six weeks, unless otherwise agreed in writing with the MMO.

Licence conditions following completion of the licensed works

39. The licence holder shall prior to the commencement of any stage of the licensed activities in which backfilling operations within the marine environment are to take place following the completion of that stage, submit to the MMO for that stage details of the materials to be used in such backfilling operations; and no such stage of the licensed activities may commence until those details have been approved in writing by the MMO.

40. The licence holder shall ensure that, unless otherwise agreed in writing with the MMO, within six weeks of completion of the licensed works, backfill operations shall return the intertidal area to its profile prior to the commencement of the licensed activities; and the licence holder shall use the materials the details of which have been approved pursuant to paragraph 39 in respect of those backfill operations.

41. The licence holder shall within six weeks of completion of the licensed works ensure that any equipment, temporary structures, waste and/or debris associated with those works are removed, unless otherwise agreed in writing by the MMO.

42.—(1) The licence holder shall as soon as reasonably practicable following completion of the licensed works notify the Hydrographic Office of that completion.

(2) The "Hydrographic Office" means the Hydrographic Office of the Ministry of Defence, Taunton, Somerset TA1 2DN.

SCHEDULE 8

Article 38

PROTECTIVE PROVISIONS

PART 1

FOR THE PROTECTION OF ELECTRICITY, GAS, WATER AND SEWERAGE UNDERTAKERS

Application

1. For the protection of the undertakers referred to in this part of this Schedule the following provisions shall, unless otherwise agreed in writing between the promoter and the undertaker concerned, have effect.

Interpretation

2. In this Part of this Schedule—

"alternative apparatus" means alternative apparatus adequate to enable the undertaker in question to fulfil its statutory functions in a manner not less efficient than previously;

"apparatus" means—

(a) in the case of an electricity undertaker, electric lines or electrical plant (as defined in the Electricity Act 1989(**a**)), belonging to or maintained by that undertaker;

(b) in the case of a gas undertaker, any mains, pipes or other apparatus belonging to or maintained by a gas transporter for the purposes of gas supply;

(c) in the case of a water undertaker, mains, pipes or other apparatus belonging to or maintained by that undertaker for the purposes of water supply; and

(d) in the case of a sewerage undertaker—

(i) any drain or works vested in the undertaker under the Water Industry Act 1991(**b**) and Water Industry (Schemes for Adoption of Private Sewers) Regulations 2011; and

(ii) any sewer which is so vested or is the subject of a notice of intention to adopt given under section 102(4) of that Act or an agreement to adopt made under section 104 of that Act, and includes a sludge main, disposal main (within the meaning of section 219 of that Act) or sewer outfall and any manholes, ventilating shafts, pumps or other accessories forming part of any such sewer, drain or works, and includes any structure in which apparatus is or is to be lodged or which gives or will give access to apparatus;

"commence" has the same meaning as in paragraph 1 of Schedule 9 (requirements);

"functions" includes powers and duties;

"in" in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over, across, along or upon land;

"plan" includes a section and description of the works to be executed;

"promoter" means the undertaker as defined in article 2 of this Order;

"undertaker" means—

(a) any licence holder within the meaning of Part 1 of the Electricity Act 1989;

(b) a gas transporter within the meaning of Part 1 of the Gas Act 1986(**c**);

(**a**) 1989 c. 29.
(**b**) 1991 c. 56.
(**c**) 1986 c. 44.

(c) a water undertaker within the meaning of the Water Industry Act 1991; and

(d) a sewerage undertaker within the meaning of Part 1 of the Water Industry Act 1991.

"United Utilities" means United Utilities PLC (company number 02366616) whose registered address is Haweswater House, Lingley Mere Business Park, Lingley Green Avenue, Great Sankey, Warrington, WA5 3LP.

3. This part of this Schedule does not apply to apparatus in respect of which the relations between the promoter and the undertaker are regulated by the provisions of Part 3 of the 1991 Act.

Temporarily stopped up streets

4. Notwithstanding the temporary stopping up or diversion of any highway under the powers of article 12 (temporary stopping up of streets and rights of way), an undertaker shall be at liberty at all times to execute and do all such works and things in, upon or under any such highway as may be reasonably necessary or desirable to enable it to maintain, renew or use any apparatus which at the time of the stopping up or diversion was in that highway.

Protective works to buildings

5.—(1) The promoter, in the case of the powers conferred by article 16 (protective work to buildings), shall, so far as is reasonably practicable, so exercise those powers as not to obstruct or render less convenient the access to any apparatus and, if by reason of the exercise of those powers any damage to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal or abandonment) or property of any undertaker or any interruption in the supply of electricity, gas or water, as the case may be, by the undertaker is caused, the promoter shall bear and pay the cost reasonably incurred by that undertaker in making good such damage or restoring the supply; and, subject to sub-paragraph (2), shall—

(a) make reasonable compensation to the undertaker for any loss sustained by it; and

(b) indemnify the undertaker against all claims, demands, proceedings, costs, damages and expenses which may be made or taken against or recovered from or incurred by that undertaker, by reason of any such damage or interruption.

(2) Nothing in this paragraph shall impose any liability on the promoter with respect to any damage or interruption to the extent that such damage or interruption is attributable to the act, neglect or default of an undertaker or its contractors or workmen; and the undertaker shall give to the promoter reasonable notice of any claim or demand as aforesaid and no settlement or compromise thereof shall be made without the prior consent of the promoter.

Acquisition of land

6. Regardless of any provision in this Order or anything shown on the land plans, the promoter shall not acquire any apparatus otherwise than by agreement.

Removal of apparatus

7.—(1) If, in the exercise of the powers conferred by this Order, the promoter acquires any interest in any land in which any apparatus is placed, that apparatus shall not be removed under this part of this Schedule and any right of an undertaker to maintain that apparatus in that land shall not be extinguished until alternative apparatus has been constructed and is in operation to the reasonable satisfaction of the undertaker in question.

(2) If, for the purpose of executing any works in, on or under any land purchased, held, appropriated or used under this Order, the promoter requires the removal of any apparatus placed in that land, it shall give to the undertaker in question written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order an undertaker reasonably needs to remove any of its apparatus) the promoter shall, subject to sub-paragraph (3), afford to the undertaker the necessary

(a) facilities and rights for the construction of alternative apparatus in other land of the promoter; and

(b) subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of the promoter, or the promoter is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, the undertaker in question shall, on receipt of a written notice to that effect from the promoter, as soon as reasonably possible use its best endeavours to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed.

(4) Any alternative apparatus to be constructed in land of the promoter under this part of this Schedule shall be constructed in such manner and in such line or situation as may be agreed between the undertaker in question and the promoter or in default of agreement settled by arbitration in accordance with article 41 (arbitration).

(5) The undertaker in question shall, after the alternative apparatus to be provided or constructed has been agreed or settled by arbitration in accordance with article 41 (arbitration), and after the grant to the undertaker of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the promoter to be removed under the provisions of this part of this Schedule.

(6) Regardless of anything in sub-paragraph (5), if the promoter gives notice in writing to the undertaker in question that it desires itself to execute any work, or part of any work in connection with the construction or removal of apparatus in any land of the promoter, that work, instead of being executed by the undertaker, shall be executed by the promoter without unnecessary delay under the superintendence, if given, and to the reasonable satisfaction of the undertaker.

(7) Nothing in sub-paragraph (6) shall authorise the promoter to execute the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or execute any filling around the apparatus (where the apparatus is laid in a trench) within 300 millimetres of the apparatus.

Facilities and rights for alternative apparatus

8.—(1) Where, in accordance with the provisions of this part of this Schedule, the promoter affords to an undertaker facilities and rights for the construction, use, maintenance, renewal and inspection in land of the promoter of alternative apparatus in substitution for apparatus to be removed, those facilities and rights shall be granted upon such terms and conditions as may be agreed between the promoter and the undertaker in question or in default of agreement settled by arbitration in accordance with article 41 (arbitration).

(2) In settling the terms and conditions mentioned in respect of alternative apparatus to be constructed in the authorised development, the arbitrator shall—

(a) give effect to all reasonable requirements of the promoter for ensuring the safety and efficient operation of the authorised development and for securing any subsequent alterations or adaptations of the alternative apparatus which may be required to prevent interference with the authorised development, its safety or its efficient operation; and

(b) so far as it may be reasonable and practicable to do so in the circumstances of the particular case, give effect to the terms and conditions (if any) applicable to the apparatus constructed in the authorised development for which the alternative apparatus is to be substituted.

(3) If the facilities and rights to be afforded by the promoter in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are in the opinion of the arbitrator more or less favourable on the whole to the undertaker in question than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the arbitrator shall make such provision for the payment of compensation to or by the promoter by or to that undertaker as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

Retained apparatus: protection

9.—(1) Not less than 28 days before starting the execution of any works of the type referred to in paragraph 7(2) that are near to, or will or may affect, any apparatus the removal of which has

not been required by the promoter under paragraph 7(2), the promoter shall submit to the undertaker in question a plan.

(2) In relation to works which will or may be situated over or within 15 metres measured in any direction of, or (wherever situated) impose any load directly upon any sewer, the plan to be submitted to the undertaker under sub-paragraph (1) shall be detailed describing—

(a) the exact position of the works;

(b) the level at which these are proposed to be constructed or renewed;

(c) the manner of their construction or renewal;

(d) the position of all sewers within 15 metres of the works or upon which the works will impose a load; and

(e) by way of detailed drawings, every alteration proposed to be made to any such sewer.

(3) The promoter shall not commence the construction or renewal of any works to which sub-paragraph (2) applies until the undertaker has given written approval of the plan so submitted.

(4) Any approval of the undertaker required under sub-paragraph (2)—

(a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraph (5);

(b) shall not be unreasonably withheld; and

(c) shall be deemed to have been given if it is neither given nor refused within 56 days of the submission of plans for approval.

(5) In relation to a work to which sub-paragraph (2) applies, the specified undertaker may require such modifications to be made to the plans as may be reasonably necessary for the purpose of securing its sewerage system against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any sewer.

(6) Works of the type referred to in paragraph 7(2) shall be executed only in accordance with the plan, submitted under sub-paragraph (1) (and in the case of a plan relating to sewers, in accordance with the plan approved or deemed to have been approved under sub-paragraph (4) or settled by arbitration in accordance with article 41 (arbitration), as amended from time to time by agreement between the promoter and the undertaker) and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (7) by the undertaker for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and the undertaker shall be entitled to watch and inspect the execution of those works.

(7) Any requirements made by an undertaker under sub-paragraph (6) shall be made within a period of 21 days beginning with the date on which a plan under sub-paragraph (1) is submitted to it.

(8) If an undertaker in accordance with sub-paragraph (7) and in consequence of the works proposed by the promoter, reasonably requires the removal of any apparatus and gives written notice to the promoter of that requirement, paragraphs 1 to 3 and 5 to 8 shall apply as if the removal of the apparatus had been required by the promoter under paragraph 7(2).

(9) Nothing in this paragraph shall preclude the promoter from submitting at any time or from time to time, but in no case less than 28 days before commencing the execution of any works, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph shall apply to and in respect of the new plan.

(10) The promoter shall not be required to comply with sub-paragraph (1) in a case of emergency but in that case it shall give to the undertaker in question notice as soon as is reasonably practicable and a plan of those works as soon as reasonably practicable thereafter and shall comply with sub-paragraph (6) insofar as is reasonably practicable in the circumstances.

Expenses

10.—(1) Subject to the following provisions of this paragraph, the promoter shall repay to an undertaker the reasonable expenses incurred by that undertaker in, or in connection with, the inspection, removal, alteration or protection of any apparatus or the construction of any new apparatus which may be required in consequence of the execution of any such works as are referred to in paragraph 7(2).

(2) There shall be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Schedule, that value being calculated after removal.

(3) If in accordance with the provisions of this part of this Schedule—

(a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or

(b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the promoter or, in default of agreement, is not determined by arbitration in accordance with article 41 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to the undertaker in question by virtue of sub-paragraph (1) shall be reduced by the amount of that excess.

(4) For the purposes of sub-paragraph (3)—

(a) an extension of apparatus to a length greater than the length of existing apparatus shall not be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and

(b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole shall be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to an undertaker in respect of works by virtue of sub-paragraph (1) shall, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on the undertaker any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

Indemnity

11.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any such works referred to in paragraph 7(2), any damage is caused to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of an undertaker, or there is any interruption in any service provided, or in the supply of any goods, by any undertaker, the promoter shall—

(a) bear and pay the cost reasonably incurred by that undertaker in making good such damage or restoring the supply; and

(b) make reasonable compensation to that undertaker for any other expenses, loss, damages, penalty or costs incurred by the undertaker, by reason or in consequence of any such damage or interruption.

(2) Nothing in sub-paragraph (1) shall impose any liability on the promoter with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of an undertaker, its officers, servants, contractors or agents.

(3) An undertaker shall give the promoter reasonable notice of any such claim or demand and no settlement or compromise shall be made without the consent of the promoter which, if it withholds such consent, shall have the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

Ground subsidence monitoring scheme in respect of United Utilities' apparatus

12.—(1) No works comprised in Work No. 1A in Schedule 1 (authorised development) shall commence until a scheme for monitoring ground subsidence ("referred to in this paragraph as the monitoring scheme") which is capable of interfering with or risking damage to United Utilities'

apparatus has been submitted to and approved by United Utilities, such approval not to be unreasonably withheld or delayed.

(2) The ground subsidence monitoring scheme described in sub-paragraph (1) shall set out—

(a) the apparatus of United Utilities which is to be subject to such monitoring;

(b) the extent of land to be monitored;

(c) the manner in which ground levels are to be monitored;

(d) the timescales of any monitoring activities; and

(e) the extent of ground subsidence which, if exceeded, shall require the promoter to submit for United Utilities' approval a ground subsidence mitigation scheme in respect of such subsidence in accordance with sub-paragraph (3).

(3) The monitoring scheme must be implemented as approved, unless otherwise agreed in writing with United Utilities.

(4) As soon as reasonably practicable after any ground subsidence identified by the monitoring activities set out in the monitoring scheme has exceeded the level described in sub-paragraph (2)(e), a scheme setting out necessary mitigation measures (if any) for such ground subsidence (referred to in this paragraph as a "mitigation scheme") shall be submitted to United Utilities for approval, such approval not to be unreasonably withheld or delayed; and any mitigation scheme must be implemented as approved, unless otherwise agreed in writing with United Utilities.

(5) If the monitoring scheme or mitigation scheme would conflict with any aspect of any ground subsidence monitoring scheme or ground subsidence mitigation scheme approved by the relevant planning authority pursuant to paragraph 35 of Schedule 9 (requirements) Halite may submit a revised monitoring scheme or mitigation scheme to United Utilities for its approval, such approval not to be unreasonably withheld or delayed; and the revised monitoring scheme or mitigation scheme must be implemented as approved, unless otherwise agreed in writing with United Utilities.

Enactments and agreements

13. Nothing in this part of this Schedule shall affect the provisions of any enactment or agreement regulating the relations between the promoter and an undertaker in respect of any apparatus laid or erected in land belonging to the promoter on the date on which this Order is made.

Co-operation

14. Where in consequence of the proposed construction of any of the authorised development, the promoter or an undertaker requires the removal of apparatus under paragraph 7(2) or a specified undertaker makes requirements for the protection or alteration of apparatus under paragraph 9(2), the promoter shall use its best endeavours to co-ordinate the execution of the works in the interests of safety and the efficient and economic execution of the authorised development and each specified undertaker shall use its best endeavours to co-operate with the undertaker for that purpose.

Access

15. If in consequence of the exercise of the powers of this Order the access to any apparatus is materially obstructed, the promoter shall provide such alternative means of access to such apparatus as will, so far as reasonably practicable, enable the undertaker to maintain or use the apparatus no less effectively than was possible before such obstruction.

Arbitration

16. Any difference or dispute arising between the promoter and an undertaker under this Schedule shall, unless otherwise agreed in writing between the promoter and that undertaker, be determined by arbitration in accordance with article 41 (arbitration).

PART 2

FOR THE PROTECTION OF OPERATORS OF ELECTRONIC COMMUNICATIONS CODE NETWORKS

1. For the protection of any operator, the following provisions shall, unless otherwise agreed in writing between the promoter (as defined in Part 1 of this Schedule) and the operator, have effect.

2. In this part of this Schedule—

"the 2003 Act" means the Communications Act 2003(**a**);

"conduit system" has the same meaning as in the electronic communications code and references to providing a conduit system shall be construed in accordance with paragraph 1(3A) of that code;

"electronic communications apparatus" has the same meaning as in the electronic communications code;

"the electronic communications code" has the same meaning as in Chapter 1 of Part 2 of the 2003 Act(**b**);

"electronic communications code network" means—

(a) so much of an electronic communications network or conduit system provided by an electronic communications code operator as is not excluded from the application of the electronic communications code by a direction under section 106 of the 2003 Act; and

(b) an electronic communications network which the Secretary of State is providing or proposing to provide;

"electronic communications code operator" means a person in whose case the electronic communications code is applied by a direction under section 106 of the 2003 Act; and

"operator" means the operator of an electronic communications code network.

3. The exercise of the powers of article 29 (statutory undertakers) are subject to paragraph 23 of Schedule 2 to the Telecommunication Act 1984(**c**).

4.—(1) Subject to sub-paragraphs (2) to (4), if as the result of the authorised development or their construction, or of any subsidence resulting from any of those works—

(a) any damage is caused to any electronic communications apparatus belonging to an operator (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works, or other property of an operator); or

(b) there is any interruption in the supply of the service provided by an operator, the promoter shall bear and pay the cost reasonably incurred by the operator in making good such damage or restoring the supply and shall—

(i) make reasonable compensation to an operator for loss sustained by it; and

(ii) indemnify an operator against claims, demands, proceedings, costs, damages and expenses which may be made or taken against, or recovered from, or incurred by, an operator by reason, or in consequence of, any such damage or interruption.

(2) Nothing in sub-paragraph (1) shall impose any liability on the promoter with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of an operator, its officers, servants, contractors or agents.

(3) The operator shall give the promoter reasonable notice of any such claim or demand and no settlement or compromise of the claim or demand shall be made without the consent of the promoter which, if it withholds such consent, shall have the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

(**a**) 2003 c. 21.
(**b**) See section 106.
(**c**) 1984 c. 12.

(4) This part of this Schedule shall not apply to—

(a) any apparatus in respect of which the relations between the promoter and an operator are regulated by the provisions of Part 3 of the 1991 Act; or

(b) any damages, or any interruptions, caused by electro-magnetic interference arising from the construction or use of the authorised development.

(5) Nothing in this part of this Schedule shall affect the provisions of any enactment or agreement regulating the relations between the promoter and an undertaker in respect of any apparatus laid or erected in land belonging to the promoter on the date on which this Order is made.

5. The temporary stopping up or diversion of any highway under article 12 (temporary stopping up of streets and rights of way) shall not affect any right of the operator under paragraph 9 of the electronic communications code to maintain any apparatus which, at the time of the stopping up or diversion, is in that highway.

6. Any difference or dispute arising between the promoter and an operator under this Part of this Schedule shall, unless otherwise agreed in writing between the promoter and that operator, be referred to and settled by arbitration under article 41 (arbitration).

PART 3

FOR THE PROTECTION OF BLACKPOOL BOROUGH COUNCIL

Application and interpretation

1.—(1) For the protection of Blackpool Borough Council and the operator the following provisions shall, unless otherwise agreed in writing between the promoter (as defined in Part 1 of this Schedule) and Blackpool Borough Council, have effect.

(2) In this Part of this Schedule—

"Blackpool Borough Council" means The Blackpool Borough Council whose address is Town Hall, Blackpool, FY1 1AD;

"the operator" means the operator for the time being of the Blackpool to Fleetwood Tramway;

"commence" has the same meaning as in paragraph 1 of Schedule 9 (requirements);

"construction" includes execution, demolition, placing and altering and "construct" and "constructed" shall be construed accordingly;

"the engineer" means an engineer to be appointed by Blackpool Borough Council;

"plans" includes a section and description of the works to be executed and "approved plans" means plans approved in accordance with the provisions of this Part of this Schedule or settled by arbitration under article 41 (arbitration);

"specified works" means so much of the authorised development as is situated upon, across, under, over or within 15 metres of tramway property or which in any way adversely affects tramway property;

"tramway property" means—

(a) any tram rail of Blackpool Borough Council;

(b) any works, apparatus and equipment of Blackpool Borough Council or the operator connected with such tram rails; and

(c) any land, premises, structures or erections held or used by Blackpool Borough Council or the operator for the purposes of operating such tram rails or such works, apparatus and equipment.

Pedestrian and vehicular access

2.—(1) The promoter shall not in the exercise of the powers of this Order prevent pedestrian or vehicular access to any tramway property, unless preventing such access is with the consent of the engineer.

(2) The consent of the engineer under sub-paragraph (1) above shall not be unreasonably withheld or delayed but may be given subject to reasonable conditions.

Approval of plans

3. The promoter shall, before commencing the construction of any part of the specified works, furnish to the engineer such proper and sufficient plans relevant to the part of the specified works concerned as may be reasonably required by the engineer; and the promoter shall not commence those specified works until the plans have been approved in writing by the engineer or settled by arbitration under article 41 (arbitration).

4. The engineer's approval under paragraph 3 shall not be unreasonably withheld and any question of whether it has been unreasonably withheld shall in the absence of agreement be settled by arbitration under article 41 (arbitration).

Protective works

5.—(1) Upon signifying his approval or disapproval of the plans submitted pursuant to paragraph 3 the engineer may notify the promoter in writing of any protective works, whether temporary or permanent, which in his reasonable opinion should be carried out before the commencement of the construction of the specified works to ensure the stability of tramway property, or the continuation of the safe and effective operation of the tram rails of Blackpool Borough Council; and such protective works as may be reasonably necessary for those purposes shall be constructed by Blackpool Borough Council and the Operator with all reasonable dispatch or, if engineer so notifies the promoter, such protective works shall be carried out by the promoter (in either case at the expense of the promoter).

(2) The promoter shall not commence the construction of the specified works until the engineer has notified the promoter that the protective works referred to in sub-paragraph (1) above have been completed to his reasonable satisfaction.

Notice of works and maintenance

6. The promoter shall give to the engineer not less than 28 days' notice of its intention to—

(a) commence the construction of any of the specified works; and

(b) (save in the event of an emergency in which case it shall give such notice as may be reasonably practicable in the circumstances) carry out any maintenance of the specified works in so far as such maintenance adversely affects tramway property.

Manner of carrying out specified and protective works

7. The construction by the promoter of the specified works, any protective works described in paragraph 5 and any alterations and additions to such specified works and protective works shall, when commenced, be carried out—

(a) with all reasonable dispatch in accordance with the plans approved under paragraph 3 or settled under article 41 (arbitration);

(b) under the supervision (where appropriate and if given) and to the reasonable satisfaction of the engineer; and

(c) in such manner as to cause;

(i) as little damage as reasonably practicable to tramway property;

(ii) as little interference as is reasonably practicable with the conduct of traffic on the tram lines of Blackpool Borough Council and the use by passengers of tramway property,

and if any such damage or interference shall be caused by the promoter carrying out the specified works or any protective works, the promoter shall, notwithstanding any approval given under paragraph 3 or settled under article 41 (arbitration), make good such damage and shall pay to Blackpool Borough Council and/or the operator (as appropriate) all reasonable expenses to which Blackpool Borough Council and/or the operator (as appropriate) may be put and compensation for any loss which Blackpool Borough Council and/or the operator (as appropriate) may sustain by reason of any such damage or interference.

8. Nothing in paragraph 7 shall impose any liability on the promoter with respect to any damage, cost, expense or loss which is attributable to the act, neglect or default of Blackpool Borough Council or the operator or any person in either of their employ or of either of their contractors or agents; and any liability of the promoter under paragraph 7 shall be reduced proportionately to the extent to which any damage, cost, expense or loss is attributable to the act, neglect or default of Blackpool Borough Council or the operator or any person in either of their employ or of either of their contractors or agents.

Access for the carrying out of works in compliance with this Part of this Schedule

9. The promoter shall at all times afford reasonable facilities to the engineer for access to the specified works during their construction and the construction of any protective works carried out by the promoter pursuant to the provisions of paragraph 5 and shall supply him with all such information as he may reasonably require with regard to the specified works or any such protective works or to the method of their construction.

10.—(1) During the construction of any works by Blackpool Borough Council or the operator under this Part of this Schedule Blackpool Borough Council and the operator shall at all times afford reasonable facilities to the promoter and its agents for access to those works, and shall supply the promoter with such information as the promoter reasonably requires with regard to such works or the method of construction of such works.

(2) During the construction of the specified works Blackpool Borough Council and the operator shall at all reasonable times subject to the prior written approval of the engineer afford reasonable facilities to the promoter and its agents for access to tramway property and shall supply the promoter with such information as the promoter reasonably requires with regard to tramway property as is reasonably necessary to enable the promoter to comply with sub-paragraphs 7(a) to 7(c) of paragraph 7;

(3) During the carrying out of maintenance of the specified works under paragraph 12 Blackpool Borough Council and the operator shall at all reasonable times subject to the prior written approval of the engineer afford reasonable facilities to the promoter and its agents for access to tramway property and shall supply the promoter with such information as the promoter reasonably requires with regard to tramway property as is reasonably necessary to enable the promoter to comply with paragraph 12.

Expenses

11. The promoter shall repay to Blackpool Borough Council and/or the operator (as appropriate) all reasonable costs, charges and expenses reasonably incurred by Blackpool Borough Council and/or the operator (as appropriate)—

(a) in constructing any protective works under the provisions of paragraph 5, including, in respect of any permanent protective works, a capitalised sum representing the cost which may be expected to be reasonably incurred by Blackpool Borough Council and/or the operator (as appropriate) in maintaining and renewing such works (such sum in the absence of agreement to be settled by arbitration under article 41 (arbitration)); and

(b) in respect of the approval of plans and any supervision by the engineer of the construction of the specified works.

Right to require maintenance of specified works

12. If at any time after the completion of a specified work, (unless that specified work is vested in Blackpool Borough Council) the engineer gives notice to the promoter informing it that the state of repair of the specified work appears to be such that it adversely affects the safe and effective operation of tramway property, the promoter shall, on receipt of such a notice, take such steps as are reasonably necessary to put that specified work in a state of repair such that it no longer adversely affects tramway property.

Indemnity

13. The promoter shall be responsible to Blackpool Borough Council and/or the operator (as appropriate) for all reasonable costs, charges, damages and expenses not otherwise provided for

in paragraph 11 which may be occasioned to, or reasonably incurred by, Blackpool Borough Council and/or the operator (as appropriate) —

(a) by reason of the construction or maintenance of the specified works or the failure of the specified works; or

(b) by reason of any act or omission of the promoter or of any person in its employ or of its contractors whilst engaged in the construction or maintenance of the specified works,

and the promoter shall indemnify Blackpool Borough Council and the operator from and against all claims and demands arising out of or in connection with the construction of the specified works or any such failure, act or omission; and the fact that any act or thing has been done in accordance with any requirement of the engineer or under his supervision shall not (unless it was done as a result of negligence on the part of Blackpool Borough Council or the operator or any person in either of their employ or of either of their contractors or agents) excuse the promoter from any liability under the provisions of this paragraph.

14.—(1) Any liability of the promoter under paragraph 13 shall be reduced proportionately to the extent to which any costs, charges, damages and expenses are attributable to the act, neglect or default of Blackpool Borough Council or the operator or any person in either of their employ or of either of their contractors or agents.

(2) The engineer shall give to the promoter immediate notice of any claim or demand described in paragraph 13 and no settlement or compromise of the claim or demand shall be made without the consent of the promoter which, if it withholds such consent, shall have the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

(3) In the assessment of any sums payable to Blackpool Borough Council or the operator under this Part of this Schedule there shall not be taken into account any increase in the sums claimed that is attributable to any action taken by or any agreement entered into by Blackpool Borough Council or the operator if that action or agreement was not reasonably necessary and was taken or entered into with a view to obtaining the payment of those sums by the promoter under this Part of this Schedule or increasing the sums so payable.

(4) The engineer shall, on receipt of a request from the promoter, from time to time provide the promoter free of charge with written estimates of the costs, charges, expenses and other liabilities for which the undertaker is or will become liable under this part of this Schedule and with such information as may reasonably enable the promoter to assess the reasonableness of any such estimate or claim made or to be made pursuant to this part of this Schedule.

Approvals and arbitration

15.—(1) Where any consent, approval or expression of satisfaction is sought under this Part of this Schedule from Blackpool Borough Council or the operator it shall not be unreasonably withheld or delayed.

(2) Any difference or dispute arising between the promoter and Blackpool Borough Council or the operator under this Part of this Schedule shall be referred to and settled by arbitration under article 41 (arbitration).

SCHEDULE 9

Article 42

REQUIREMENTS

Interpretation

1. In this Schedule—

"the 1999 Regulations" means the Control of Major Accident Hazards Regulations 1999(**a**);

"the 2010 Regulations" means the Conservation of Habitats and Species Regulations 2010(**b**);

"132kv electrical circuits" means the works described in Work Nos. 17A to 17C of Schedule 1 to this Order;

"aftercare" means monitoring, maintenance and management of land within the Order limits following its restoration;

"approved development plans" mean the plans listed below and certified as the approved development plans by the Secretary of State for the purposes of this Order—

A-9000-016 Rev.C (application boundary index plan); A-9100-006 Rev.C (application boundary sheet 1 of 9); A-9100-007 Rev.B (application boundary sheet 2 of 9); A-9100-008 Rev.B (application boundary sheet 3 of 9); A-9100-009 Rev.B (application boundary sheet 4 of 9); A-9100-010 Rev.B (application boundary sheet 5 of 9); A-9100-011 Rev.B (application boundary sheet 6 of 9); A-9100-012 Rev.B (application boundary sheet 7 of 9); A-9100-013 Rev.B (application boundary sheet 8 of 9); A-9100-014 Rev.B (application boundary sheet 9 of 9); A-5000-001 Rev.B (seawater pump station site location plan); A-5000-002 Rev.B (seawater pump station site plan); A-5000-003 Rev.B (seawater pump station ground floor plan); A-5000-004 Rev.B (seawater pump station elevations, cross section); A-6000-001 Rev.B (booster pump station and control centre location plan); A-6000-002 Rev.B (booster pump station site and location plan); A-6000-003 Rev.B (booster pump station ground floor plan and section); A-6000-004 Rev.B (booster pump station elevations); A-7000-001 Rev.B (entrance facilities site and location plans); A-7000-002 Rev.B (entrance facilities proposed barn rebuild); A-7000-003 Rev.B (entrance facilities gatehouse and farmhouse); A-2000-001 Rev.B (compressor station & electrical sub-station locations); A-2000-002 Rev.B (gas compressor compound site plan); A-2000-003 Rev.B (compressor compound floor plans); A-2000-004 Rev.B (gas compressor compound sectional elevations); A-2000-005 Rev.C (gas compressor compound equipment elevations); A-2000-006 Rev.B (gas compressor compound indicative planting); A-1000-001 Rev.C (wellhead compounds location plan); A-1000-030 Rev.B (cavern development); A-9100-015 Rev.C (temporary construction compounds index plan); A-9100-016 Rev.C (temporary construction compounds - sheet 1 of 5); A-9100-017 Rev.B (temporary construction compounds - sheet 2 of 5); A-9100-018 Rev.B (temporary construction compounds - sheet 3 of 5); A-9100-019 Rev.B (temporary construction compounds - sheet 4 of 5); A-9100-020 Rev.B (temporary construction compounds - sheet 5 of 5); MMD-277663-D-DR-00-XX-0100 (proposed access road - sheet 1 of 3); MMD-277663-D-DR-00-XX-0101(proposed access road - sheet 2 of 3); 277663-D-DR-00-XX-0103 (proposed access road - sheet 3 of 3); C.01117.X03 (location of outfall os map); C.01121.X03 (concrete diffuser); A-9000-032 Rev.C (seawall crossing site location plan); 4726/05 Rev.B (proposed sea wall crossing of brine outfall pipe); A-9000-001 Rev.C (master plan overall); A-9000-002 Rev.C (fleetwood master plan); A-9000-003 (Preesall master plan); A-9000-005 Rev.B (master plan/metering station); A9000-014 Rev.C (master site location plan-reference drawing); A-9000-033 Rev.C (nts master plan); A-3000-010 Rev.B (metering station location plan); A-3000-001 Rev.B

(**a**) S.I. 1999/743.
(**b**) S.I. 2010/490.

(plan and elevation metering station); and 14.10-WX40004-02 (landscape and ecological management strategy plan);

"brine discharge pipeline" means the works described in Work Nos. 16A to 16L of Schedule 1 to this Order;

"competent authority" means the Health and Safety Executive and Environment Agency acting jointly;

"commence" means beginning to carry out any material operation (as defined in section 155 of the 2008 Act) other than operations consisting of site clearance, demolition work, archaeological investigations, investigations for the purpose of assessing ground and geological conditions, remedial work in respect of any contamination or other adverse ground conditions, diversion and laying of services, erection of any temporary means of enclosure, the temporary display of site notices or advertisements and "commencement" and "commenced" shall be construed accordingly;

"construction phase" means the period during which works to construct the authorised development are carried out;

"construction work" means construction works undertaken during the construction phase;

"decommissioned cavern" means an operational cavern decommissioned pursuant to paragraphs 32 or 33 of this Schedule 9;

"decommissioning" means the decommissioning of operational caverns, structures, hoardings and other infrastructure comprised in the authorised development when it is no longer required for operational use or, as the case may be, upon the permanent cessation of operation of the authorised development;

"decommissioning phase" means the period during which the authorised development is decommissioned following permanent cessation of operation of the authorised development;

"environmental statement" means the document certified as the environmental statement by the Secretary of State for the purposes of this Order;

"European protected species" has the same meaning as in regulation 40 of the 2010 Regulations;

"European site" has the same meaning as it has in regulation 8(1) of the 2010 Regulations and includes the Morecambe Bay site designated under The Convention on Wetlands of International Importance especially as Waterfowl Habitat, signed in Ramsar, Iran in 1971, ratified by the United Kingdom in 1976 and known as the "Ramsar Convention";

"existing mineworking" means a mineworking which existed prior to the making of this Order;

"Flints Caravan Park plan" means the drawing dated September 2012 and given drawing reference A-9100-4001 certified as the Flints Caravan Park plan by the Secretary of State for the purposes of this Order;

"geology summary report" means the document entitled the geology summary report and certified as the geology summary report by the Secretary of State for the purposes of this Order;

"Harbour Village plan" means the drawing dated September 2012 and given drawing reference A-9100-4003 certified as the Harbour Village plan by the Secretary of State for the purposes of this Order;

"Kneps Farm Holiday Park plan" means the drawing dated September 2012 and given drawing reference A-9100-4002 certified as the Kneps Farm Holiday Park plan by the Secretary of State for the purposes of this Order;

"the landscape and ecological management strategy plan" means the document entitled the landscape and ecological management strategy plan with drawing reference 14.10V2-WX40004-02 dated May 2012 and certified as the landscape and ecological management strategy plan by the Secretary of State for the purposes of this Order;

"mudstone" means the members of the Kirkham Mudstone formation known as the Coat Walls Mudstone Member (above the Preesall halite deposit) and the Thornton Mudstone Member (beneath the Preesall halite deposit), belonging to the Mercia Mudstone Group, characterised by a distinctive sequence of alternately red-brown and grey-green well bedded mudstones with many thin intercalations of siltstone and dolomitic siltstone and more particularly described on the Geological Survey of Great Britain (England and Wales) Sheet 66, 1:50,000 Series, Solid and Drift Edition, of the British Geological Survey Classification entitled "The Geology of the country around Blackpool" dated 1990 and further described in the accompanying British Geological Survey Sheet Memoir 66;

"NTS interconnector pipeline" means the works described in Work Nos. 20A to 20H of Schedule 1 (authorised development) of this Order;

"operational phase" means the period during which the authorised development is in operational use as an underground gas storage facility;

"permanent cessation" means—

(a) where it is referred to in the context of a part of the authorised development the cessation of operation of that part in circumstances that at the time of such cessation it is the undertaker's understanding and expectation that that part of the authorised development will not be returned to operational use at some point in the future; and

(b) where it is referred to in the context of the authorised development as a whole the cessation of operation of the authorised development in circumstances that at the time of such cessation it is the undertaker's understanding and expectation that the authorised development as a whole will not be returned to operational use at some point in the future;

"Preesall site" means that part of the authorised development situated to the east of the River Wyre and shown shaded green on the Preesall site plan;

"Preesall site plan" means the drawing dated 4 November 2011 and given drawing reference D-9000-032 certified as the Preesall site plan by the Secretary of State for the purposes of this Order;

"reaming" means the process used to increase a pilot hole to the required size;

"restoration" means the restoration of land within the Order limits for future use after permanent cessation of the operation of the authorised development;

"stage" means a defined section or part of the authorised development, the extent of which is shown in a scheme submitted to and approved by the relevant planning authority pursuant to paragraph 3 (stages of authorised development);

"wet rockhead areas" means those parts of the subsoil of the Order limits shown on Figure 5.7 (Distribution of known wet rockhead (BGS data)) in the geology summary report where what was formerly the Preesall halite deposit has been dissolved by groundwater circulation such that mudstone strata overlying what was formerly the Preesall halite deposit have collapsed into it.

Time limits

2. The authorised development must be begun within five years of the date of this Order.

Stages of authorised development

3. No authorised development shall commence until a written scheme setting out all the stages of the authorised development has, after consultation with the highway authority, been submitted to and approved by the relevant planning authority.

Detailed design approval

4.—(1) The authorised development shall not be carried out otherwise than in accordance with the approved development plans.

(2) Notwithstanding sub-paragraph (1), no works to the sea wall crossing and observation platform comprising part of Work No. 16J of Schedule 1 (authorised development) shall commence until

details of the layout, scale, external appearance and means of access of the sea wall and crossing and observation platform have been submitted to and approved by the relevant planning authority. Works to the sea wall crossing and observation platform must be carried out in accordance with the approved details.

(3) Notwithstanding sub-paragraph (1), no construction of a wellhead compound area (comprised in Work Nos. 2A to 2G (inclusive) of Schedule 1 (authorised development)) shown on the approved development plans shall commence until the following details for that wellhead compound area have been submitted to and (after consultation by the relevant planning authority with Natural England in relation to measures necessary to avoid or mitigate significant effects on designated European sites) approved by the relevant planning authority—

(a) details of the siting and size of each wellhead compound area;

(b) details of the design and external appearance of any buildings, structures or equipment to be provided;

(c) means of access and details of the construction of each access;

(d) details of the construction of the surface of each wellhead compound area including the stripping and stockpiling of soils, the location and the storage of such, and the materials to be used in the construction of each wellhead compound area;

(e) details of any fencing to be erected; and

(f) details of any floodlighting to illuminate the wellhead compound area including the number, height and location of any stanchions to be erected or mobile floodlighting units to be used, the number of floodlights, their lux levels, angles of luminance and extent of light distribution.

(4) The details submitted pursuant to sub-paragraph (3) shall include the development of earth bunds and temporary screening to reduce visual disturbance to birds using the designated European sites and adjacent farmland, consistent with the principles of the landscape and ecological management strategy plan and environmental statement (Chapter 9 of Volume 1A).

(5) Each wellhead compound area shall be constructed in accordance with the details approved pursuant to sub-paragraph (3) for that wellhead compound area; and any approved temporary screening at a wellhead compound area shall be retained until the completion of construction from that wellhead compound area.

(6) Notwithstanding sub-paragraph (1), the construction of any underground pipe between any wellhead compound area (comprised in Work Nos. 2A to 2G (inclusive) of Schedule 1 (authorised development)) and any existing brine well shall not commence until details of the route, depth and design of such underground pipe have been submitted to and approved by the relevant planning authority; and the underground pipe shall be constructed in accordance with the approved details.

External materials approval

5. No stage of the authorised development shall commence until details of the external materials for any building within that stage have been submitted to and approved by the relevant planning authority.

Details of operational cavern layout and design

6.—(1) No stage of the authorised development shall commence until:

(a) a geological survey of the "area for cavern development" shown on the approved development plan with reference A-1000-030 Rev B has been carried out to confirm the top and bottom levels of the Preesall halite deposit and the presence of any faulting to a confidence limit of ± 5 metres;

(b) the working capacity of Work No 1A has been calculated taking account of the results of the geological survey and sub-paragraph 4 (a) to (h) of this requirement; and

c) the results of the geological survey and the working capacity calculation have been submitted to and agreed by Lancashire County Council.

(2) No authorised development shall be carried out if the working capacity of Work No 1A as agreed by Lancashire County Council pursuant to sub-paragraph 1 (c) is less than 300 million standard cubic metres at the standard temperature and pressure.

(3) No more than 19 operational caverns, with a total storage capacity of up to 900 million standard cubic metres and working capacity of up to 600 million standard cubic metres, both specified at the standard temperature and pressure, shall be constructed within the "area for cavern development" shown on the approved development plan with reference A-1000-030 Rev B.

(4) Unless the safety reports (to be submitted pursuant to Regulations 7(1), 7(5) and 8 of the 1999 Regulations), following communication of the competent authority's conclusions of its examination of those reports pursuant to Regulation 17 of the 1999 Regulations (and directions if any), allow otherwise—

(a) in this paragraph, where an operational cavern is not of a constant radius, reference to the radius of that operational cavern shall mean the largest radius for that operational cavern; and the maximum radius of any operational cavern shall not exceed approximately 50 metres;

(b) the thickness of the remaining salt between the operational cavern roof and the upper surface of the Preesall halite deposit shall be not less than the radius of each operational cavern;

(c) a minimum thickness of 20% of the radius of the operational cavern shall be maintained between the deepest point of the operational cavern and the basal surface of the Preesall halite deposit;

(d) wall to wall separation of proposed operational caverns, operational caverns, proposed decommissioned caverns or decommissioned caverns of equal diameter shall be no less than three times the radius of the proposed operational caverns, operational caverns, proposed decommissioned caverns or decommissioned caverns; wall to wall separation of proposed operational caverns, operational caverns, proposed decommissioned caverns or decommissioned caverns of unequal diameter shall be no less than the sum of one and a half times the radius of the smaller proposed operational cavern, operational cavern, proposed decommissioned cavern or decommissioned cavern plus one and a half times the radius of the larger proposed operational cavern, operational cavern, proposed decommissioned cavern or decommissioned cavern;

(e) the minimum distance between any operational cavern and the Burn Naze fault or any intra-grabinal fault shall be no less than three times the radius of that operational cavern;

(f) the minimum distance between any operational cavern and any existing brine cavern or existing mineworking shall be no less than four times the radius of that operational cavern (save that where the size of an existing brine cavern is not known the minimum separation distance between an operational cavern and the well head of that existing brine cavern shall be five times the radius of that operational cavern);

(g) the minimum distance between any operational cavern and any exploratory borehole drilled into the Preesall halite deposit shall be no less than twice the radius of that operational cavern;

(h) the minimum distance between any operational cavern and wet rockhead areas shall be four times the radius of that operational cavern.

European protected species

7.—(1) No stage of the authorised development shall commence until further survey work (if required by Natural England) has been carried out to establish whether a European protected species is present–

(a) on any of the land affected, or likely to be affected, by that stage of the authorised development; or

(b) in any of the trees to be lopped or felled or in buildings to be demolished during that stage of the authorised development.

(2) Where a European protected species is shown to be present by such further survey work, that stage of the authorised development shall not commence until a scheme of protection and mitigation measures has been submitted to the relevant planning authority and, after consultation with Natural England and the Secretary of State for the Environment, Food and Rural Affairs, has been approved by the relevant planning authority. That stage of the authorised development shall be carried out in accordance with the approved scheme.

Ecological management scheme

8.—(1) No stage of the authorised development shall commence until an ecological management strategy scheme for that stage, reflecting the survey results and ecological mitigation and enhancement measures included in the environmental statement (chapter 9 of Volume 1A and Appendices 9.4 – 9.16 of Volume 1B), and including details of working methods, means of mitigation and restoration, has been submitted to and (after consultation by the relevant planning authority with Natural England in relation to measures necessary to avoid or mitigate significant effects on designated European sites) approved by the relevant planning authority.

(2) The ecological management strategy scheme shall include an implementation timetable and give effect to the landscape and ecological management strategy plan where the landscape and ecological management plan is applicable to that stage of the authorised development; and must be carried out as approved.

Landscape scheme

9.—(1) No stage of the authorised development shall commence until a landscape scheme for that stage has been submitted to and (after consultation by the relevant planning authority with Natural England in relation to measures necessary to avoid or mitigate significant effects on designated European sites) approved by the relevant planning authority. The scheme shall set out the long term design objectives, management responsibilities and maintenance schedules for all relevant landscape areas relating to that stage together with details of all proposed hard and soft landscaping works, including—

(a) location, number, species, size and planting density of any proposed planting;

(b) cultivation, importing of materials and other operations to ensure plant establishment;

(c) proposed finished ground levels;

(d) hard surfacing materials;

(e) vehicular and pedestrian access, parking and circulation areas;

(f) minor structures, such as furniture, refuse or other storage units, signs and lighting;

(g) proposed and existing functional services above and below ground, including drainage, power and communications cables and pipelines, manholes and supports;

(h) details of existing trees to be retained, with measures for their protection during the construction phase; and

(i) programme and implementation timetable for all landscaping works.

(2) The landscape scheme shall give effect to the landscape and ecological management strategy plan where the landscape and ecological management strategy plan is applicable to that stage of the authorised development.

Implementation and maintenance of landscaping

10.—(1) All landscaping works must be carried out in accordance with any relevant landscape scheme approved under paragraph 9 (landscape scheme) and to a reasonable standard in accordance with the relevant recommendations of appropriate British Standards or other recognised codes of good practice.

(2) The landscaping works must be carried out in accordance with implementation timetables approved under paragraph 9 (landscape scheme).

(3) Any tree or shrub planted as part of an approved landscape scheme that, within a period of five years after planting, is removed, dies or becomes, in the opinion of the relevant planning authority, seriously damaged or diseased, must be replaced in the first available planting season with a

specimen of the same species and size as that originally planted, unless otherwise approved by the relevant planning authority.

Highway accesses

11.—(1) No stage of the authorised development shall commence until for that stage, written details of the siting, design and layout of any new permanent or temporary means of access to a highway to be used vehicular traffic, or any alteration to an existing means of access to a highway used by vehicular traffic, has, after consultation with the highway authority, been submitted to and approved by the relevant planning authority.

(2) The highway accesses must be constructed in accordance with the approved details.

(3) No stage of the authorised development shall be begun until for that stage, a written access management scheme has, after consultation with the highway authority, been submitted to and approved by the relevant planning authority.

(4) The access management scheme must be carried out in accordance with the approved details.

Limits on heavy goods vehicle movements

12.—(1) The maximum number of heavy goods vehicle movements to and from the Preesall site during the construction phase, operational phase and decommissioning phase shall not exceed 62 per day (31 in and 31 out).

(2) The number of heavy goods vehicles which enter the Preesall site shall be recorded by the site operator. These records shall be available for inspection at the site office and a copy of these records shall be submitted to the relevant planning authority every six months, or within five working days of such records being requested by the relevant planning authority.

Covered heavy goods vehicles

13. During the construction phase, operational phase and decommissioning phase the loads of all heavy goods vehicles carrying friable bulk materials or waste shall be covered on route to and from the Order limits unless the load is otherwise enclosed or an incoming load is being uncovered for the purposes of inspection.

Wheel cleaning facilities

14.—(1) Following construction of the access from the A588 comprised in Work No. 6 of Schedule 1 (authorised development) to base course level, wheel-cleaning facilities shall be provided at a location to be agreed with the relevant planning authority in writing.

(2) Unless otherwise agreed with the relevant planning authority in writing, the wheel-cleaning facilities installed shall remain available for use, and shall be maintained in full working order, at all times during the construction phase, and be used so as to ensure that no debris from any work site is deposited by vehicle wheels upon the public highway.

Internal roads

15. The access road between the wheel-cleaning facilities referred to in paragraph 14 (wheel cleaning facilities) and the boundary of the Preesall site shall, during the construction phase, be metalled and drained and kept clear of debris along its entire length at all times.

Temporary access routes

16.—(1) Upon completion of construction of the authorised development, all temporary access routes onto the public highway shall be closed, except for those to the gas compressor compound forming part of Work No. 3 in Schedule 1 (authorised development), to the booster pump station forming part of Work No. 4 in Schedule 1 (authorised development) and to the well head compound areas forming part of Work Nos. 2A to 2G in Schedule 1 (authorised development).

(2) All verges and field boundaries that will be affected by temporary access routes shall be restored in accordance with details to be first agreed in writing by the relevant planning authority and thereafter shall be maintained for a period of five years.

Fencing and other means of enclosure

17. —(1) No stage of the authorised development shall commence until written details of all temporary fences or other means of enclosure for the construction of that stage have been submitted to and ~~(after consultation by the relevant planning authority with Natural England in relation to measures necessary to avoid or mitigate significant effects on designated European sites)~~ approved by the relevant planning authority.

(2) Any construction sites required for a stage of the authorised development must remain securely fenced at all times during the construction phase of that stage.

(3) Any temporary fencing must be removed on completion of the authorised development.

(4) No stage of the authorised development shall commence until written details of all permanent fences for that stage have been submitted to and (after consultation by the relevant planning authority with Natural England in relation to measures necessary to avoid or mitigate significant effects on designated European sites) approved by the relevant planning authority.

(5) Any approved permanent fencing around works comprised in a stage of the authorised development must be completed before those works are brought into use.

Ground/ surface water and pollution prevention

18. —(1) No stage of the authorised development shall commence until for that stage, written details of the surface and foul water drainage system (including means of pollution control) have, after consultation with the sewerage and drainage authority, been submitted to and ~~(after consultation by the relevant planning authority with Natural England in relation to measures necessary to avoid or mitigate significant effects on designated European sites)~~ approved by the relevant planning authority. The surface and foul water drainage system must be constructed in accordance with the details approved under this sub-paragraph.

(2) No stage of the authorised development involving the diversion of any stream or watercourse shall commence until a scheme and programme (including a timescale) for its diversion has been submitted to and (after consultation by the relevant planning authority with Natural England in relation to measures necessary to avoid or mitigate significant effects on designated European sites and with the Environment Agency) approved in writing by the relevant planning authority. The stream or watercourse must be diverted in accordance with the approved scheme and programme.

(3) Unless otherwise permitted under sub-paragraphs (1) and (2) above, throughout the construction phase, operational phase, and decommissioning phase, all ditches, watercourses, field drainage systems and culverts shall be maintained such that the flow of water is not impaired or the drainage onto and from adjoining land rendered less effective.

(4) All oil, diesel oil and lubricants stored within the authorised development for any purpose shall be stored on a base impervious to both oil and water and surrounded by an impermeable bund wall. The bunded area shall be capable of containing 110% of the largest tank's capacity and all drain pipes, fill pipes and sight gauges shall be enclosed within its curtilage.

(5) All drilling mud shall be stored in a bunded area with an impermeable liner within the drilling compound prior to disposal in accordance with a scheme to be agreed with the relevant planning authority.

(6) All drilling cuttings shall be removed from each drilling compound for use in the landscape scheme or for disposal in accordance with a scheme to be agreed with the relevant planning authority.

Archaeology

19. —(1) No stage of the authorised development shall commence until for that stage, a written scheme for the investigation of areas of archaeological interest as identified in the environmental statement (Chapter 7 of Volume 1A) has been submitted to and approved by the relevant planning authority.

(2) The written scheme of investigation shall identify areas where a programme of archaeological investigation is required, and the measures to be taken to protect, record or preserve any significant archaeological remains that may be found.

(3) Any archaeological works or watching brief carried out under the archaeological scheme must be by a suitably qualified person or body approved by the relevant planning authority.

(4) Any archaeological works or watching brief must be carried out in accordance with the approved archaeological scheme.

External lighting

20. —(1) No stage of the authorised development shall commence until written details of any external lighting to be installed—

(a) temporarily at any of the construction sites within that stage during the construction phase; and/or

(b) permanently during the operational phase at any site within that stage,

including measures to prevent light spillage, have, after consultation with the highway authority, been submitted to and ~~(after consultation by the relevant planning authority with Natural England in relation to measures necessary to avoid or mitigate significant effects on designated European sites)~~ approved by the relevant planning authority; and any approved means of lighting must subsequently be installed and retained for the duration of the construction phase and/or operational phase as approved.

Construction hours

21. —(1) Except in the event of an emergency, construction work (other than cavern drilling and cavern washing activities and, in relation to Work Nos. 12, 13, 14, 17B and 17C of Schedule 1, other than reaming activities) shall not take place other than between the hours of 08:00 and 18:00 hours Monday to Friday and 08:00 and 13:00 hours on Saturdays; and, unless otherwise agreed in writing with the local planning authority, except in the event of an emergency no construction work (other than cavern drilling and cavern washing activities) shall take place on Sundays and public holidays).

(2) Nothing in sub-paragraph (1) precludes—

(a) a start-up period from 07:30 to 08:00 and a shut-down period from 18:00 to 18:30 Monday to Friday; and

(b) a start-up period from 07:30 to 08:00 and a shut-down period from 13:00 to 13:30 on Saturdays.

(3) Unless otherwise agreed in writing by the relevant planning authority, no heavy goods vehicles shall, in the course of construction of the authorised development, enter or leave the Order land other than between the hours of 08:00 and 18:00 hours Monday to Friday and 08:00 and 13:00 hours on Saturdays (excluding public holidays); and in the course of construction of the authorised development, no heavy goods vehicles shall enter or leave the Order land on Sundays and public holidays, unless otherwise agreed in writing by the relevant planning authority

Construction of and drilling operations in wellhead compound areas

22.—(1) Wellhead compound areas (including the erection of associated bunds and temporary screening) shall not be constructed other than during the months of May to August (inclusive) in the same calendar year.

(2) Drilling operations within wellhead compound areas shall take place at no more than one wellhead compound area at any one time.

Code of construction practice

23.—(1) No stage of the authorised development shall commence until a code of construction practice has been submitted to and approved by the relevant planning authority.

(2) All construction works shall be undertaken in accordance with the approved code of construction practice, unless otherwise agreed by the relevant planning authority.

Construction worker travel plan

24.—(1) No stage of the authorised development shall commence until a construction worker travel plan relating to the construction phase has been submitted to and approved by the relevant planning authority.

(2) The construction worker travel plan shall be implemented during the construction phase.

Disposal of filtered material

25. All filtered material resulting from solution mining shall be disposed of on-site unless otherwise agreed in writing with the relevant planning authority.

Control of noise during construction and maintenance

26. —(1) No stage of the authorised development shall commence until a written scheme for noise management during construction and maintenance of that stage has been submitted to and ~~(after consultation by the relevant planning authority with Natural England in relation to measures necessary to avoid or mitigate significant effects on designated European sites)~~ approved by the relevant planning authority.

(2) The scheme shall set out the particulars of-

(a) the works, and the method by which they are to be carried out;

(b) the noise attenuation measures to be taken to minimise noise resulting from the works, including any noise limits;

(c) a scheme for monitoring the noise during the works to ensure compliance with the noise limits and the effectiveness of the attenuation measures;

(d) noise attenuation measures required to avoid significant disturbance to birds associated with the designated European sites; and

(e) a scheme for the handling of complaints in respect of noise resulting from the works, including a designated point of contact to which such complaints may be submitted.

(3) The approved noise management scheme must be implemented before and maintained during construction and maintenance of the relevant stage of the authorised development.

(4) The construction and maintenance works must be undertaken in accordance with the approved noise management scheme.

(5) All plant, equipment and machinery used in the construction, operation and maintenance of the authorised development shall be equipped with effective silencing equipment or sound proofing equipment to the standard of design set out in the manufacturer's specification and shall be maintained in accordance with that specification at all times during the construction, operation and maintenance of the authorised development.

(6) Notwithstanding sub-paragraph (1), ~~and subject to sub-paragragh (8),~~ during drilling under the river Wyre comprised in Work Nos. 12, 13 and 14 of Schedule 1 (authorised development), noise levels at the nearest occupied residential property at Harbour Village shall not exceed—

(a) 60dB LAeq,1h between the hours of 07:00 and 19:00;

(b) 55dB LAeq,1h between the hours of 19:00 and 23:00; and

(c) 42dB LAeq,1h between the hours of 23:00 and 07:00,

and in this sub-paragraph "Harbour Village" means the land edged red on the Harbour Village plan.

(7) Notwithstanding sub-paragraph (1), ~~and subject to sub-paragragh (8),~~ during drilling under the river Wyre comprised in Work Nos. 17B and 17C of Schedule 1 (authorised development), noise levels at the nearest occupied caravan at Kneps Farm Holiday Park and at the nearest occupied caravan at Flints Caravan Park shall not exceed—

(a) 60dB LAeq,1h between the hours of 07:00 and 19:00;

(b) 55dB LAeq,1h between the hours of 19:00 and 23:00; and

(c) 42dB LAeq,1h between the hours of 23:00 and 07:00,

and in this sub-paragraph "Kneps Farm Holiday Park" means the land edged red on the Kneps Farm Holiday Park plan and "Flints Caravan Park" means the land edged red on the Flints Caravan Park plan.

~~(8) The noise level restrictions set out in sub-paragraphs (6) and (7) shall not apply-~~

~~(a) where to facilitate the effective and expeditious carrying out of specified construction activities it is necessary to undertake works between 19:00 and 7:00, in which case the noise level of such works shall not exceed 55dB LAeq,1h; and any such works must be agreed in writing by the relevant planning authority (such agreement not to be unreasonably withheld or delayed);~~

~~(b) in respect of construction or demolition activities of short duration, in which case the noise level of such activities shall not exceed 70dB LAeq,1hr; and such activities and their duration shall be agreed with the relevant planning authority (such agreement not to be unreasonably withheld or delayed) no less than 48 hours before such activities are undertaken.~~

~~(9) In respect of agreement sought from the relevant planning authority pursuant to sub-paragraph (8)(a) –~~

~~(a) it shall not be reasonable for the relevant planning authority to withhold its agreement if it has been demonstrated to its reasonable satisfaction that the works would facilitate the effective and expeditious carrying out of specified construction activities;~~

~~(b) in determining whether to provide such agreement the relevant planning authority may have regard to the number of requests made for such agreement and the duration of the works which are the subject of requests.~~

Control of noise during operational phase

27. —(1) No stage of the authorised development shall commence operation until a written scheme for noise management of works comprised in that stage, including monitoring and attenuation for the use of works comprised in that stage of the authorised development, has been submitted to and approved by the relevant planning authority.

(2) The noise management scheme must be implemented as approved and maintained for the duration of use of the authorised development.

Control of dust emissions

28.—(1) No stage of the authorised development shall commence until a written scheme for the management and mitigation of dust emissions for that stage has been submitted to and approved by the relevant planning authority.

(2) The approved scheme for the management and mitigation of dust emissions must be implemented before and maintained during the construction phase, operational phase and decommissioning phase (as appropriate) of the relevant stage of the authorised development.

Protection of agricultural practice

29. All topsoil and subsoil storage mounds arising from the authorised development shall be kept free from noxious weeds.

Soil stripping, handling and storage

30.—(1) No stage of the authorised development involving the stripping of soil shall commence until a scheme setting out the method, handling, storage, re-instatement and programme of works related to the stripping of soil (if any) comprised in that stage has been submitted to and approved by the relevant planning authority.

(2) Soil stripping must be carried out in accordance with the approved scheme.

Decommissioning, restoration and aftercare scheme for submission prior to commencement of the authorised development

31.—(1) No stage of the authorised development shall commence until a scheme of decommissioning, restoration and aftercare for that stage has been submitted to and ~~(after consultation by the relevant planning authority with Natural England in relation to measures necessary to avoid or mitigate significant effects on designated European sites)~~ approved by the relevant planning authority.

(2) The scheme (so far as relevant to that stage) shall include proposals for—

(a) decommissioning of the operational caverns following permanent cessation of such operational caverns;

(b) decommissioning of the pipelines comprised in the authorised development;

(c) what above-ground structures, buildings and other parts of the authorised development are to be demolished, removed or retained and the means of any demolition;

(d) the phasing (if any) of any decommissioning, demolition and/or removal proposed in sub-paragraphs (a) to (c);

(e) the means of removal of decommissioning materials and demolition waste arising from the activities listed in sub-paragraphs (a) to (c);

(f) the restoration and aftercare of land on which works comprised in that stage of the authorised development are located.

Decommissioning of individual operational caverns during operational phase

32.—(1) Following the completion of all solution mining works relating to the creation of a proposed operational cavern pursuant to the powers granted in this Order, if that proposed operational cavern is determined during testing to be unsuitable for the storage of gas and after a period of 24 months from the date of that determination it is still deemed unsuitable for storage of gas, then a scheme detailing the decommissioning of that proposed operational cavern (referred to hereafter in this paragraph as a "redundant cavern") and infrastructure related to that redundant cavern not required for the remainder of the authorised development shall be submitted to the relevant planning authority for approval.

(2) The scheme referred to at sub-paragraph (1) shall also set out proposals for—

(a) the long term management of the redundant cavern;

(b) the monitoring of the redundant cavern;

(c) a risk management plan setting out measures to be taken in appropriate circumstances to minimise risk in respect of the redundant cavern; and

(d) a timetable for implementation of the scheme.

(3) Following written approval by the relevant planning authority, the scheme referred to at sub-paragraph (1) shall be implemented.

Decommissioning, restoration and aftercare scheme after permanent cessation of operations

33.—(1) Six months prior to the permanent cessation of operation of the authorised development, a scheme of decommissioning, restoration and aftercare of the authorised development shall be submitted for approval in writing by the relevant planning authority.~~, who shall consult with Natural England in relation to measures necessary to avoid or mitigate significant effects on designated European sites~~.

(2) The scheme shall include proposals for—

(a) future uses of the operational caverns following permanent cessation of such operational caverns or (if none) the means of decommissioning such operational caverns;

(b) future uses of the pipelines comprised in the authorised development or (if none) the means of decommissioning of such pipelines;

(c) what above-ground structures, buildings and other parts of the authorised development are to be demolished or retained and the means of any demolition;

(d) the phasing of any decommissioning, demolition and/or removal proposed in sub-paragraphs (a) to (c);

(e) the means of removal of decommissioning materials and demolition waste arising from the activities listed in sub-paragraphs (a) to (c);

(f) works for the restoration of land within the Order limits on which the authorised development is located and the phasing of such restoration works;

(g) aftercare of the authorised development, having regard to any future uses of elements of the authorised development, including the long term monitoring and management of the decommissioned caverns;

(h) a risk management plan setting out measures to be taken in appropriate circumstances to minimise risk in respect of the authorised development following permanent cessation of operation of the authorised development; and

(i) a timetable for implementation of the scheme.

(3) The scheme shall be implemented as approved following the permanent cessation of the operation of the authorised development.

Maintenance of brine discharge pipeline, 132kv electrical circuits and NTS interconnector pipeline

34.—(1) Save in the case of emergency (which shall include but not be limited to works necessitated by safety and/or production requirements) 28 days' written notice shall be given to the relevant planning authority prior to the implementation of any maintenance works relating to the brine discharge pipeline, the 132kv electrical circuits and NTS interconnector pipeline. The notice shall set out the extent of the maintenance works and their timing.

(2) Save in the case of emergency (which shall include but not be limited to works necessitated by safety and/or production requirements) or unless otherwise agreed in writing with the relevant planning authority all maintenance works to the brine discharge pipeline, the 132kv electrical circuits and NTS interconnector pipeline shall not be carried out other than between the hours of 07:00 and 18:00 (Monday to Saturday) and no such maintenance work shall be carried out on a Sunday, bank holiday or public holiday.

(3) The maintenance works described at sub-paragraphs (1) and (2) shall be carried out and the land related to such maintenance works shall be reinstated as expeditiously as reasonably practicable.

Ground subsidence monitoring scheme

35.—(1) That part of the interconnector gas pipeline between Work No. 3 in Schedule 1 (authorised development) and Back Lane, comprised in Work No. 20A in that Schedule, shall not be commenced until a ground subsidence monitoring scheme relating to the Preesall site has been submitted to and approved by the relevant planning authority. The scheme shall include details of—

(a) how ground levels are to be monitored; and

(b) the extent within the Preesall site and timescales of any monitoring activities.

(2) Within 6 months of any ground subsidence being identified by the monitoring activities set out in the ground subsidence monitoring scheme, a scheme setting out necessary mitigation measures (if any) for such ground subsidence (a "ground subsidence mitigation scheme") shall be submitted to the relevant planning authority for approval.

(3) The ground subsidence monitoring scheme and ground subsidence mitigation scheme shall be implemented as approved, unless otherwise agreed in writing with the relevant planning authority.

Signals

36. The undertaker shall in the course of construction of the works authorised under the marine licence set out at Schedule 7 (deemed marine licence under Part 4 (marine licensing) of the

Marine and Coastal Access Act 2009) ensure that any jack up barges or vessels utilised, when jacked up, shall exhibit signals in accordance with the UK standard marking schedule for offshore installations(**a**).

River Wyre crossings

37. —(1) All works in respect of pipelines and cables comprised in the authorised development which cross the river Wyre (including the creation of compounds associated with such works (referred to in this paragraph only as "compounds"))—

(a) shall be carried out in such a way as to ensure that there is no encroachment on or damage to habitats within the designated European sites; and

(b) shall not be carried out other than during the months of May to August (inclusive) in the same calendar year save that any excavation and drilling operations comprised in such works may only be undertaken during the months of May to July (inclusive) in the same calendar year and save that the creation of compounds may only be undertaken during the months of April to August (inclusive) in the same calendar year.

(2) Compounds shall not be created until details of the siting of such compounds have been submitted to the relevant planning authority and (after consultation by the relevant planning authority with Natural England in relation to measures necessary to avoid or mitigate significant effects on designated European sites) have been approved by the relevant planning authority; and the compounds shall be created in accordance with the approved details.

Dedication agreement

38. The works described in Schedule 3 (streets subject to alteration of layout) shall not be commenced until a written agreement has been entered into with the highway authority (which shall not unreasonably withhold or delay its entry into such an agreement) which provides for—

(a) completion of those works to the reasonable satisfaction of the highway authority;

(b) dedication of those works as public highway upon such completion;

(c) agreement by the highway authority to adopt the works as highway maintainable at the public expense following—

(i) such completion; and

(ii) the expiry of a maintenance period of 12 months during which time any necessary remedial works shall be undertaken by the undertaker at its own expense; and

(d) such other matters reasonably required by the highway authority in respect of sub-paragraphs (a) to (c) which are usually and reasonably included in such written agreements with highway authorities.

Requirement for written approval

39. Where under any of the above requirements the approval or agreement of the relevant planning authority or another person is required, that approval or agreement must be given in writing.

Amendments to approved details

40. With respect to any requirement which requires the authorised development to be carried out in accordance with details approved by the relevant planning authority, the approved details shall be taken to include any amendments that may subsequently be approved in writing by the relevant planning authority.

(**a**) Obtainable by post from the Department of Energy & Climate Change, OED - EDU, Environment Management Team, 4th Floor, Atholl House, 86-88 Guild Street, Aberdeen, AB11 6AR (telephone 01224 254050; email EMT@berr.gsi.gov.uk).

EXPLANATORY NOTE

(This note is not part of the Order)

The Order

This Order authorises Halite Energy Group Limited (referred to as "the undertaker") to construct and operate an underground gas storage facility and associated infrastructure at Preesall, Lancashire.

The Order permits the undertaker to acquire, compulsorily or by agreement, land and rights in land and to use land for this purpose. The Order also makes provision in connection with the maintenance of the facility.

A copy of the Order plans and the book of reference mentioned in this Order and certified in accordance with article 39 of this Order (certification of plans, etc.) may be inspected free of charge during working hours at the Planning Reception Desk, Wyre Borough Council, Civic Centre, Breck Road, Poulton-le-Fylde, Lancashire, FY6 7PU.

The deemed marine licence

Informative: To the extent that an activity comprised in the maintenance of the licensed works authorised under the marine licence at Schedule 7 (deemed marine licence under Part 4 (marine licensing) of the Marine and Coastal Access Act 2009) requires a marine licence under the 2009 Act, the undertaker must submit an application to the MMO for such a licence in respect of such an activity.

STATUTORY INSTRUMENTS

201[●] No. [●]

INFRASTRUCTURE PLANNING

ENERGY

The Preesall (Underground Gas Storage Facility) Development Consent Order 201[●]

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APPENDIX E – ABBREVIATIONS

AAP	Area Action Plan
(the) Act	(the) Planning Act 2008
AP	Affected Party
APP(1)	Application document (number 1)
bar	bar, unit of pressure (1 bar is atmospheric pressure)
BGS	British Geological Survey
BPM	Best Practicable Means
BS	British Standard
BW	Brinewell
CA (hearing)	Compulsory acquisition (hearing)
CA Land	The plots of land identified in the Book of Reference
CA Plan	The Land Plan (APP6)
CGS	Canatxx Gas Storage Ltd
CRW	Countryside and Rights of Way Act 2000
cSAC	candidate Special Area of Conservation
Competent Authority	competent authority in the context of the COMAH Regulations (HSE and EA)
competent authority	competent authority in the context of HRA (Secretary of State)
COMAH	Control of Major Accident Hazards
dB	Decibels, unit of sound pressure
DCO	Development Consent Order
DPD	Development Plan Document
Drg no	Drawing number
EA	Environment Agency
EM	Explanatory memorandum
EN-1	Overarching National Policy Statement for Energy
EN-4	National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines
ENWL	Electricity North-West Limited
EPS	European protected species
ES	Environmental Statement
et seq	and the following
ExA	Examining authority
FTE	Full time equivalent (used in people equivalents)
FRA	Flood Risk Assessment
GC81-336	Seismic line, 1981
GC86-DU371	Seismic line, 1986
GCC	Gas compressor compound

GSR	Geological Summary Report
ha	hectare
HA	Highways Agency
HGV(s)	heavy goods vehicle(s)
HIA	Health Impact Assessment
HRA	Habitat Regulations Assessment
HSC	Hazardous Substances Consent
HSE	Health and Safety Executive
ibid	in the same passage
IELP -99-25	Seismic line, 1999
IP	Interested Party
IPC	Infrastructure Planning Commission
IS (hearing)	Issue specific (hearing)
KEGC	Knott End Golf Club
km	kilometre
km^2	square kilometres
kv	Kilovolt, unit of electricity
LAeq,1h	Equivalent continuous A-weighted sound pressure level (in dB) determined over a period of 1 hour
LCC	Lancashire County Council
LDF	Local Development Framework
LEMSP	Landscape and Ecological Management Strategy Plan
LIR	Local Impact Report
LPS	Local Planning Authority
l/s	Litres per second
m	metres
m^3	cubic metre
mm	millimetres
Mcm	million standard cubic metres specified at standard temperature and pressure
MMO	Marine Management Organisation
NE	Natural England
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
NTS	National Transmission System
OF (hearing)	Open floor (hearing)
PADHI	Planning Advice for Development near Hazardous Installations
PD(1)	Procedural decision (number 1)
PESL	Preesall Energy Services Ltd
PIZ	Public Information Zone

PA 2008	Planning Act 2008 (as amended)
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
psu	unit of salinity
PWG	Protect Wyre Group, an umbrella group representing seven local opposition groups and 10,852 residents
R	Radius of UGS cavern
RA	Risk Assessment
REP(1)	Representation Document (number1)
RSS	Regional Spatial Strategy
s	Section (in an Act or similar)
SAC	Special Area of Conservation
SCI	Site of Community Importance
SoCG	Statement of Common Ground
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
STW	Sewage Treatment Works
TCPA	Town and Country Planning Act 1990
UGS	Underground Gas Storage
UU	United Utilities
WBC	Wyre Borough Council
WH	Wellhead
WwTW	Waste Water Treatment Works