

1.0 INTRODUCTION

1.1 The Environmental Statement (ES) has been prepared on behalf of Moorland Energy Limited to accompany a planning application submitted to North Yorkshire County Council (NYCC), as the County Planning Authority (CPA), and the North York Moors National Park Authority (NYMNP) under the Town and Country Planning Act 1990 as amended by the Planning and Compulsory Purchase Act 2004 for the Ryedale Gas Project. The Ryedale Gas Project includes five principal elements:

- Gas production from the existing Ebberston Wellsite;
- The construction of two underground gas pipelines from the existing Ebberston Wellsite to a new Gas Processing Facility;
- A new access road between the A170 and the proposed Gas Processing Facility;
- A Gas Processing Facility at Hurrell Lane, Thornton-le-Dale; and
- An Above Ground Installation (AGI) connection into the existing National Transmission System (NTS) pipeline to the south of the Gas Processing Facility on land off New Ings Lane.

1.2 The aim of this Chapter of the ES is to provide a broad overview of the developer, the project and the requirements of the Environmental Assessment Regulations.

Moorland Energy Limited

1.3 Moorland Energy Limited, hereafter referred to as Moorland Energy, was formed in 2008 to participate in the onshore exploration and production of gas in the UK. Moorland Energy owns an onshore Production Exploration and Development Licence, number 120 ("PEDL 120") in the Cleveland Basin, North Yorkshire which is surrounded by the following proven gas fields:

- Ebberston Moor – formally known as "Lockton" which produced from 1971 to 1974;
- Wykeham – discovered and tested in 1971;
- Pickering – in production;
- Kirby Misperton – in production;
- Malton – in production;
- Marishes – in production; and
- Cloughton – a discovery which lies in the (recently expired) PEDL030 licence area.

- 1.4 Significant reserves of gas have been discovered at the existing Ebberston Wellsite close to Dalby Forest and other gas fields within the area have the potential to produce in excess of 100Bcf of gas. Therefore, the proposed Gas Processing Facility has the potential to process gas from other gas fields in the area for the next 20 - 25 years. This approach is supported by Moorland Energy's long-term commitment to the area which will provide a number of socio-economic benefits including employment (both full and part-time employment opportunities) and skills development (including an apprenticeship programme), investment in social, environmental and infrastructural improvements and supporting the diversification of the local economy. Notwithstanding the local benefits, the proposed Gas Processing Facility can provide a number of national benefits including increasing the security of supply and reducing the country's dependency on the importation of fossil fuels.
- 1.5 The aim of the planning application submitted by Moorland Energy is to provide the necessary infrastructure to link the Wellsite to the National Transmission System (NTS). This would be achieved through the construction of an underground gas pipeline between the existing Wellsite and the existing NTS at Thornton-le-Dale. In order that the gas meets the requirements of the National Grid it is necessary to process the gas prior to connection and, to this end, a Gas Processing Facility is proposed at Hurrell Lane. From the Gas Processing Facility, an underground gas pipeline links to the NTS via the AGI, in what is referred to as a "hot tap" connection.
- 1.6 Although a relatively new Company, the Moorland Energy team has extensive experience and expertise in gas exploration, processing and production. In preparing the application documentation, Moorland Energy has sought to minimise the environmental impact of the proposals and ensure minimal disruption.
- 1.7 On the basis that planning permission is obtained, Moorland Energy will operate and supervise the construction and operation of the Proposed Development in accordance with the requirements of the legislation and industry best practice.

Proposed Development

- 1.8 The general location of the proposals is shown on **Figure 1.1** and a site plan is provided on **Figure 1.2**. A description of the site and surroundings is provided in Chapter 3 of this ES.
- 1.9 Two parallel pipelines are proposed carrying wet gas and produced liquids respectively from the Wellsite, plus a fibre optic cable, to the Gas Processing Facility at Hurrell Lane

- a distance of approximately 8.6km. The Proposed Development falls partially within and also adjacent to the North York Moors National Park (NYMNP) and Moorland fully recognises the sensitivity of the area and the requirement to mitigate any significant adverse environmental impacts. Moorland Energy has employed a sensitive approach to the development of the proposals which has been influenced by the conclusions of the environmental assessment carried out as part of the preparation of this ES.

1.10 The Proposed Development comprises:

- Gas production from the existing Ebberston Wellsite including;
 - A separator at the existing Ebberston Wellsite to separate any produced liquids from the natural gas;
 - Facilities for storing and injecting small quantities of methanol or glycol at the Ebberston Wellsite to prevent hydrate formation which could otherwise block the pipes;
 - A corrosion inhibitor at the Ebberston Wellsite to prevent corrosion of the pipelines which could be caused by the wet and sour condition of the gas;
- The construction of two underground gas pipelines from the existing Ebberston Wellsite to a new Gas Processing Facility including;
 - Construction of one 300mm and one 100mm pipeline and a fibre optic cable within a 15m-42m construction easement between the existing Ebberston Wellsite and the proposed processing station at Hurrell Lane, Thornton le Dale;
- A new access road between the A170 and the proposed Gas Processing Facility;
- A Gas Processing Facility at Hurrell Lane, Thornton-le-Dale including;
 - An inlet facility also known as a slug catcher, to ensure any liquids not separated at the Ebberston Wellsite are removed;
 - Two compressors to increase the pressure of the gas to that of the NTS;
 - A Sweetening Plant consisting of an absorber tower to circulate solvent counter current to the gas flow and remove the Hydrogen Sulphide from the gas;
 - Hydrocarbon and Water Dew Point Control Plant to remove higher hydrocarbons in the gas and prevent them condensing as a liquid in the NTS;
 - Liquids Handling Area for condensate stabilisation and glycol recovery, consisting of a three phase separator, holding vessels and heater;
 - Meter to gauge the gas quality prior to export to the NTS;

- Safety facilities such as a High Integrity Pressure Protection System (HIPPS) for primary pressure containment protection, pressure sensing devices and a flare/vent system including the need for a sterile area;
- Water storage areas and tanks;
- Control Room, Switchgear Room and Instrument Room;
- Parking facilities for staff;
- Construction of a security fence and CCTV facilities around the perimeter of the proposed Hurrell Lane Site;
- Construction of an access road to the proposed Hurrell Lane Site from the A170 Wilton Road;
- Associated infrastructure; and
- Construction of one 300mm export pipeline from Hurrell Lane to the proposed NTS AGI in the field to the south of New Ings Lane, Pickering;
- An Above Ground Installation (AGI) connection into the existing National Transmission System (NTS) pipeline to the south of the Gas Processing Facility on land off New Ings Lane.

1.11 A full description of the Proposed Development is set out in Chapter 4 of this ES.

Site Selection Process

1.12 There are a number of potential pipeline routes between the Ebberston Wellsite and the NTS. Similarly, there are a number of potential locations for the construction of the Gas Processing Facility, albeit, that it should be located on the pipeline route. Prior to the identification of the preferred route of the pipelines and location of the Gas Processing Facility, a number of alternative routes and locations were examined. A summary of the alternative routes and locations is set out in Chapter 5 of this ES.

Environmental Assessment

1.13 The purpose of an EIA is to assess the environmental implications of the Proposed Development that are likely to have significant effects. Therefore, it is the process by which the information about the environmental effects of a development is assembled and analysed. Where an EIA is required, the information must be provided by the developer in an ES.

1.14 Following discussions with NYCC and NYMNP, this ES has been commissioned by Moorland Energy in order to identify, evaluate and mitigate the potential significant

environmental effects of the Proposed Development. The ES has been prepared in accordance with the requirements of Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 which require that it should provide:

- a description of the development proposed, comprising about the site and the design and size or scale of the development;
- the data necessary to identify and assess the main effects which the development is likely to have on the environment;
- a description of the likely significant effects of the development on the environment;
- a description of the measures envisaged in order to avoid, reduce or remedy any likely significant adverse effects; and
- a summary in non-technical language of the above information.

1.15 The impact of the proposals is set out in Chapters 7-18 of this ES as summarised below.

Structure of the Environmental Statement

1.16 The ES comprises three separate volumes and a Non Technical Summary, namely:

Volume 1 Environmental Statement Main Document: This contains the full text of the ES and comprises a total of 19 chapters which are set out below.

- 1) Introduction
- 2) Environmental Impact Assessment Methodology
- 3) Site and Surroundings
- 4) Project Description
- 5) Alternative Sites and Processes
- 6) Construction Programme
- 7) Ecology
- 8) Landscape and Visual Impact
- 9) Air Quality
- 10) Noise and Vibration
- 11) Traffic and Transportation
- 12) Flood Risk, Hydrology and Drainage
- 13) Archaeology and Cultural Heritage
- 14) Lighting
- 15) Arboriculture

- 16) Agricultural Land and Soils
 - 17) Geology
 - 18) Socio Economic
 - 19) Conclusions and Statement of Significance
- Glossary of Terms and Abbreviations

Volume 2 Environmental Figures and Plans

Volume 3 Environmental Statement Technical Appendices – A complete set of technical appendices is provided in a separate volume.

- 1.17 The Environmental Statement Non-Technical Summary (NS) presents a summary of the ES in “non-technical” language and is a requirement of the EIA Regulations. The NS contains a concise summary of the Proposed Development, its potential significant environmental effects and the measures proposed to mitigate or to avoid these effects.