

## 14.0 ECONOMICS

### Introduction

- 14.1 This chapter of the ES assesses the likely significant effects of the Development in terms of economics.
- 14.2 The chapter describes: the assessment methodology; the baseline conditions currently existing at the Site and surroundings; the likely significant economic effects; the mitigation measures required to prevent, reduce or offset any significant adverse effects; and the likely residual effects after these measures have been employed.

### Policy Context

- 14.3 The following planning policy context is set out in national, regional and local planning policies.

#### National Energy Policy

Energy White Paper – “Our energy future – creating a low carbon economy”<sup>i</sup>

- 14.4 The Energy White Paper was published by the Department for Trade and Industry (DTI) in February 2003. Its purpose was to generate a debate about a new energy policy for the UK. It states that the government’s goal is for people and businesses to be able to rely upon secure supplies of energy, including gas, at predictable prices through the market. Reliable energy supplies are an essential element of sustainable development (paragraph 6.1).
- 14.5 To achieve this, the White Paper states that the UK needs a resilient and diverse energy system based upon a mix of fuel types and back up facilities. Paragraph 6.37 states that:

*“[the Government] is committed to maintaining an active and successful oil and gas industry in the UK, and to promoting future development of the nation’s oil and gas reserves. The sector is and will remain important to the wider UK economy in terms of jobs, investment and its contribution to the national income. We are keen to continue to encourage investment in both existing and new fields.”*

Ministerial Written Statement "Energy Statement of Need for Additional Gas Supply Infrastructure"

14.6 The Secretary of State for Trade and Industry published a Statement on 16 May 2006 (CDA18) about the interaction between Government policy and planning procedures in respect of the need for additional gas infrastructure. Those parts of the Statement that are particularly relevant for this assessment are as follows:

- Securing the reliability of energy supplies is integral to UK energy policy;
- The Government warmly welcomes all solutions, large and small, onshore and offshore, which help to maintain and improve the reliability of energy supplies;
- A balance must be struck between meeting the concerns of local authorities and those they represent, and national need for infrastructure that will provide us with secure energy supplies;
- Whilst new energy infrastructure projects may not convey any particular local benefit, they provide crucial national benefits, shared by all localities;
- They add to the reliability of national energy supplies from which every user of energy benefits;
- It is all too easy to suggest that need can be met in some other way, or that the project could be located elsewhere. All localities have a part to play in energy policy;
- Developers are best placed to make a judgement about the technical feasibility and economic viability of individual projects;
- The role of planning authorities is to ensure that the local environmental effects of new supply infrastructure are minimised and, if appropriate, put forward suggestions for local variations; and
- Due weight needs to be given to the crucial national benefits of such projects, which all localities share, and the importance of ensuring that infrastructure is in place in time to meet demand.

14.7 The Statement is summarised at the end:

*"We need timely and appropriately sited gas supply infrastructure to be delivered by the market, because:*

- *Great Britain is becoming increasingly dependent on gas imports, and requires new gas supply infrastructure to help ensure security of supply;*

- *new projects enable extra supply and storage options if they proceed without avoidable delays;*
- *new energy infrastructure projects provide national benefits, shared by all localities."*

### The Energy Challenge<sup>iii</sup>

14.8 The Energy Challenge was published by the DTI in July 2006. It forms a review of the UK's future energy needs with particular focus upon ways to save energy, make energy cleaner and reduce carbon dioxide emissions and have greater security over energy supplies.

14.9 The review reiterates the point made in the 2003 White Paper about the need for a diverse energy system based upon a mix of fuel types and back up facilities such as storage (paragraph 4.3). Paragraph 4.14 states that

*"Making efficient use of the UK's own energy reserves brings obvious benefits both in the contribution it can make to a diverse UK energy mix but also to the economy in terms of jobs, investment and national income generated by the sector."*

14.10 Chapter 7 focuses on the need to speed up the planning system for large-scale energy infrastructure. It notes at paragraph 7.6 that there are several specific factors that contribute to the difficulties for developers in securing planning permission.

- *"Individual energy projects are part of large national systems that provide benefits enjoyed by all communities. The areas in which they are located share in these benefits – and may also gain some economic advantage, for example, in terms of employment. But the benefits to society and the wider economy as a whole are much larger. These larger, wider benefits are not always visible to the specific locality in which energy projects are sited. Therefore, local opposition can often be strong.*
- *Without a clear Government policy highlighting the strategic national need of a particular type of development, it is difficult for an inspector to give sufficient weight to the national benefits when balancing these against local views. As a result, public inquiries can become embroiled in debates about national issues,*

*rather than focusing on local issues relating to siting of the proposed development.”*

- 14.11 Paragraph 7.49 states that as the production of indigenous supplies of gas continues to decline and the UK becomes more reliant on imported gas, there is an increasing need for gas supply infrastructure. Paragraph 7.50 goes on to emphasise that new gas supply infrastructure will play an important role in maintaining a reliable supply of energy for the UK. Securing consent is a key factor since delays in securing consent can lead to price rises and price volatility.

Meeting the Energy Challenge – A White Paper on Energy (2007)<sup>iv</sup>

- 14.12 The Energy White Paper, Meeting the Energy Challenge – A White Paper on Energy (2007) sets out the UK Government’s current international and domestic energy strategy for the Country. The Paper seeks to respond to the two long term energy challenges, namely tackling climate change by reducing carbon emissions and ensuring secure, clean and affordable energy as the UK becomes increasingly dependent on imported fuel. To manage the potential risks associated with higher imports of fossil fuels, the Paper stresses the need to maximise the economic production of the UK’s domestic energy sources.
- 14.13 Chapter 4 of the White Paper outlines the Government’s strategy for the improvements of the regulatory and policy framework to ensure the economic recovery of the UK’s fossil fuel reserves. This strategy seeks to maintain the competitiveness of the UK’s gas and oil production by encouraging a high level of investment in new infrastructure and to maintain a supportive environment that attracts a wide range of companies to exploit existing and prospective fields.

Government Response to Malcolm Wick’s Review of International Energy Security, ‘Energy Security: A national challenge in a challenging world’<sup>v</sup>

- 14.14 Mr Wick’s Review, ‘Energy Security: A national challenge in a changing world’ was an independent review on the likely future international energy security and its implications for the UK, published in August 2009. It looked in detail at energy security issues, with a strong international focus. The Government’s response was published in April 2010 by the Secretary of State for Energy and Climate Change.
- 14.15 Paragraph 66 gives the Government’s response to the need to reduce risks associated with hydrocarbon importation. Even with the development of low carbon technologies, the UK for many years to come will continue to require both oil and gas to meet its needs in

transportation, industry, heating and power. UK production will continue in decline to 2020, increasing the proportion of gas which the UK will need to import. "In this context, it is very important for the UK's security of supply that we maximise economic production from our own reserves."

#### Gas Security of Supply<sup>vi</sup>

14.16 The Department of Energy and Climate Change (DECC) published a policy statement, Gas Security of Supply, in April 2010, setting out the UK's approach to gas security of supply. As the cleanest and most reliable fossil fuel, the Statement makes clear that gas is likely to continue to be a central part of the UK's energy mix in the long term. Paragraphs 2.10 and 2.11 state that:

*"The UK has a liberalised, competitive energy market, which operates within a strategic framework set out by the Government. This approach ensures that commercial incentives combine with efficient processes to mitigate against and manage the risks of any interruption.*

*The key elements of this overall framework are:*

- *Economic production from indigenous resources is maximised;*
- *A well-functioning commodity market delivers a high quality, reliable and competitive service to consumers;*
- *A well-functioning capital market works with the Government to provide necessary levels of investment in energy infrastructure;*
- *An enabling regulatory framework is set by the Government, in areas where the market acting alone might not achieve adequate levels of security; and*
- *Strong and diverse markets are promoted both within the EU and internationally."*

14.17 In referring to the reform of the planning and consents regime, the policy statement states in paragraph 2.27 that gas infrastructure projects are capital-intensive, with major economies of scale.

## Gas Generation Strategy<sup>vii</sup>

14.18 The Gas Generation Strategy was presented to Parliament in December 2012. It recognises the role that gas will continue to play within a competitive, diverse, low-carbon energy mix required “to keep the lights on at affordable prices, while moving towards a sustainable low-carbon future”. It also recognises that new gas plants, which are relatively cheap and quick to build, will be needed in the future, providing significant power while greater amounts of renewable technologies are deployed. The Strategy sets out the Government’s response to concerns and barriers to investors in new gas plants to help build investor confidence and encourage the new capacity needed over the coming years. It also sets out the Government’s work to maintain the security of the gas supply to ensure that best use is made of the natural resources.

## National Planning Policy

### National Planning Policy Framework (NPPF)<sup>viii</sup>

14.19 Fundamental principles underpinning the NPPF are the need to deliver sustainable development and build a strong, competitive economy nationwide. The Government’s overall commitment is to secure economic growth aimed at the creation of jobs and prosperity, building on the country’s inherent strengths and meeting the twin challenges of global competition and providing a low carbon future. To achieve this, the Government is committed to ensuring that the planning system encourages sustainable economic growth and does not impede it.

14.20 To ensure that the planning process supports growth of a prosperous rural economy, paragraph 28 of the NPPF states that:

*“Planning policies should support sustainable economic growth in rural areas by taking a positive approach to new development. Planning strategies should maintain a prosperous rural economy including policies to:*

- *Support the sustainable growth and expansion of all types of business and enterprise in rural areas, both through conversion of existing buildings and well designed new buildings; and*
- *Promote the development and diversification of agricultural and other land-based rural businesses”*

14.21 Chapter 13 of the NPPF sets out the Government's policies specifically relating to facilitating the sustainable use of minerals. Paragraph 142 states that:

*"Minerals are essential to support sustainable economic growth and our quality of life. It is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs. However, since minerals are a finite natural resource and can only be worked where they are found, it is important to make best use of them to secure their long-term conservation."*

14.22 Paragraph 144 makes clear that, when determining planning applications, local planning authorities should "give great weight to the benefits of the mineral extraction, including to the economy."

14.23 The NPPF further states that local planning authorities should ensure that their Local Plans are based on adequate, up-to-date and relevant evidence about the economic, social and environmental characteristics and prospects of the area. Local planning authorities should ensure that their assessment of and strategies for employment and other uses are integrated and take full account of relevant market and economic signals. In specific reference to Minerals, the planning authorities should:

*"...work with other relevant organisations to use the best available information to:*

- *Develop and maintain an understanding of the extent and location of mineral resource in their areas; and*
- *Assess the projected demand for their use, taking full account of opportunities to use materials from secondary and other sources which could provide suitable alternatives to primary materials."*  
*(NPPF, paragraph 163)*

Planning Practice Guidance (PPG)<sup>ix</sup>

14.24 Planning Practice Guidance in relation to Minerals, published by the Government in March 2014, confirms that minerals 'make an essential contribution to the Country's prosperity and quality of life'. Section 3 of the Minerals PPG states that:

*"Mineral planning authorities are encouraged to plan for minerals extraction using Ordnance Survey-based proposals maps and relevant evidence provided by the minerals industry and other appropriate bodies. This approach will allow mineral planning authorities to highlight areas where mineral extraction is expected to take place, as well as managing potentially conflicting objective for use of land."*

14.25 Section 3 advises mineral planning authorities that they should plan for the steady and adequate supply of minerals in one or more of the following ways:

- 1. "Designating Specific Sites – where viable resources are known to exist, landowners are supportive of minerals development and the proposal is likely to be acceptable in planning terms. Such sites may also include essential operations associated with mineral extraction;*
- 2. Designating Preferred Areas, where are areas of known resources where planning permission might reasonably be anticipated. Such areas may also include essential operations associated with mineral extraction; and/or;*
- 3. Designating Areas of search – areas where knowledge of mineral resources may be less certain but within which planning permission may be granted, particularly if there is a potential shortfall in supply."*

14.26 Section 9 (Planning for Hydrocarbon Extraction – 'Determining the Planning Application') states that:

*"Mineral planning authorities should take account of Government energy policy, which makes it clear that energy supplies should come from a variety of sources. This includes onshore oil and gas ...*

*Mineral planning authorities should use appropriate planning conditions ... to mitigate against any adverse environmental impact ..."*



14.27 Section 9 also states, under 'Aftercare and Restoration' that:

*"Mineral planning authorities will ensure the proper restoration and aftercare of a site through imposition of suitable planning conditions and, where necessary, through section 106 Agreements. For hydrocarbon extraction sites where expected extraction is likely to last for a short period of time, it is appropriate for the mineral planning authority to impose a detailed set of planning conditions as part of the planning application."*

English National Parks and the Broads: UK Vision and Circular 2010<sup>x</sup>

14.28 Circular, published by the Department for the Environment Food and Rural Affairs (Defra) in March 2010, applies only in England and is to provide updated policy guidance on the English National Parks and the Broads. The Circular states in Paragraph 68 that communities are a fundamental part of the Parks' character and that authorities must ensure that they give sufficient weight to socio-economic interest in order to fulfil their duties appropriately to sustain strong communities. The Circular notes that authorities can play a catalytic role by achieving this, through fostering an appropriate planning regime encouraging new development to broaden the economic base and fostering more diverse and higher value local employment opportunities. Authorities should look to achieve a sectoral mix which could include high value, knowledge-intensive jobs, which are likely to attract and retain people of all ages, but are particularly intended to appeal to young people. Authorities therefore need to consider carefully how to support appropriate development and seek to foster economic activity which will strengthen the sustainability of Park communities and businesses.

14.29 In relation to mineral working in the Parks, paragraph 141 acknowledges that the Parks are a vital source of some of the minerals that society and the economy needs. It is therefore important that the need for minerals and the impacts of extraction and processing on people and the environment are managed in an integrated way.

Regional Energy Policy

The Regional Energy Infrastructure Strategy for Yorkshire and Humber<sup>xi</sup>

14.30 The Regional Energy Strategy was published jointly by the Government Office for Yorkshire and the Humber, Yorkshire Forward and the Yorkshire and Humber Assembly in February 2007 (CDB4). It is an Action Plan to 2010 for achieving three objectives within the region:

- Leading the way in delivering secure regional and national energy supplies;
- Promoting a reduction in energy demand through efficiency in supply and transmission; and
- Maximising low carbon energy generation.

14.31 Yorkshire and Humber presently contributes 17-18% of the UK's electricity production whilst consuming 7-8%. The area is therefore key to the UK's energy supply infrastructure. To align with the Government's goals and build upon the region's role within the UK, the vision is:

*"Yorkshire and Humber will continue to be a primary energy provider for the UK while achieving low carbon energy targets."*

14.32 The Strategy states that natural gas contributes 16% to the regional energy mix, most of which is used within the boundaries of the region. Natural gas is the third most significant contributor to the region's energy balance after oil refineries and coal. The Strategy acknowledges that relatively little is known about gas infrastructure in the region and the plans for the future. "Given the importance of gas in the provision of our energy needs, this shortcoming has to be addressed in order to position the future of gas both regionally and nationally."

#### Regional Economic Policy

A Flourishing Region – Regional Economic Strategy for Yorkshire and the Humber 2006 – 2015 – Progress Update<sup>xii</sup>

14.33 The Regional Economic Strategy for Yorkshire and the Humber (CDB5) identifies six strategic objectives for the economic development of the region, one of which is Transport, Infrastructure and the Environment. This objective is to be achieved by four specified deliverables, the most relevant of which is to "ensure effective energy, utilities and broadband investment". Work to promote energy security and reduced fossil fuel dependency is a stated action.

14.34 Annex 1 sets out regional outcome targets for 2006 – 2015. In 2004, the region had just over 3 million people of working age, of which 74.4% were in employment. The Regional Economic Strategy (RES) has a target to raise the employment rate to 78-80%, equating to around 155,000 – 200,000 net extra jobs. By early 2007, however, the employment rate had

fallen to 73.4%. In order to achieve the RES target, the region needs to attract an additional 139,200 – 200,400 people to employment by 2015.

- 14.35 Since 2007, the unemployment rate has continued to fall. The Regional Labour Supply Headline Indicators for Yorkshire and Humber, published in January 2013 by ONS, states that the employment rate in the three months to November 2012 was 57.6%. The Skills Priority Statement of 2011/12, published by Yorkshire Forward in August 2011, forecasts that the region is expected to create 57,000 new jobs by 2015. The Statement states that “job opportunities are likely to be in a range of sectors and occupations which raise issues of skills levels in Yorkshire and the Humber as the majority of those jobs will be driven by a demand for higher skills”.

#### Local Planning Policy

#### North Yorkshire Minerals Waste and Local Plan<sup>xiii</sup>

- 14.36 The North Yorkshire Minerals Local Plan was adopted in 1997 and contains a number of saved policies detailed in the accompanying Planning and Sustainability Statement. Policy 4/1 of the Local Plan provides guidance for determining a minerals application and states that, where appropriate, the proposal should satisfy a number of criteria which include:

*"f) the proposals and programme for restoration are acceptable and would allow a high standard of restoration to be achieved;*  
*g) a high standard of aftercare and management of the land could be achieved."*

- 14.37 The Development, and in particular activity such as a restoration strategy as outlined in Policy 4/1, would generate employment for the local area with an anticipation that such jobs could be resourced from within the existing, local labourforce.
- 14.38 Policy 7/6 'Development Scheme' states that permission should only be granted for commercial production within the framework on an overall development scheme relating to all proven deposits within the gasfield and oilfield and that such application should be accompanied by an Environmental Statement. This chapter of the accompanying Environmental Statement demonstrates that all phases of the scheme from identification of minerals to extraction and final decommissioning and restoration will not only benefit the UK economy through provision of additional gas supply but that additional local employment will be generated at each phase.

14.39 In accordance with the Planning and Compulsory Act 2004, North Yorkshire County Council is currently in the process of preparing a Minerals and Waste Joint Plan (being prepared jointly with the North York Moors National Park Authority and the City of York) which will cover the period up to 2030. Based on the current timetable, is it anticipated that a draft of the Plan will be published in December 2014.

NYMNPA Local Development Framework<sup>xiv</sup>

14.40 Mineral planning within the National Park comes under the jurisdiction of the North York Moors National Park Authority (NYMNPA). Under the Planning and Compulsory Purchase Act 2004, all local plans have to be replaced by a Local Development Framework (LDF).

14.41 The Framework consists of a number of different documents to guide future development whilst ensuring that the National Park's special qualities are conserved and enhanced. The Core Strategy and Development Policies document, adopted in November 2008, is key to the NYMNPA Local Development Framework. It sets out a spatial vision for the future of the National Park and provides Core Policies guiding a strategic framework for the scale and location of all types of new development and detailed development policies against which individual proposals such as waste and minerals will be assessed.

14.42 Core Policy H (Rural Economy) states that the total economy will be strengthened and supported by providing local communities with a range of opportunities. Traditionally, farming, forestry and tourism have dominated the economy of the National Park. Paragraph 8.4 notes that access to a range of high quality and long term employment opportunities is a key factor in encouraging young people to stay and maintain sustainable rural communities. The NYMNPA is committed to encouraging and promoting opportunities for new employment in the National Park.

NYMNPA Joint Minerals and Waste Plan<sup>xv</sup>

14.43 A Joint Minerals and Waste Plan is being prepared with North Yorkshire County Council and the City of York Council; the need having arisen from gaps in policy resulting from the adoption of the NPPF and the revocation of the Yorkshire and Humber RSS. Whilst the Joint Plan will address the supply of minerals in the plan area and set policies to deal with minerals applications, the Plan is in the very early stages of delivery, with no public examination having taken place, and with adoption not anticipated before October 2015. As the Joint Plan can, therefore, only be considered to have limited weight thus far, this Chapter will not be assessed against the draft Plan.

NYMNPA Annual Monitoring Report 2013<sup>xvi</sup>

14.44 The NYMNPA Authority Report for 2013 assesses the extent to which planning policies are being implemented between 1 April 2012 and 31 March 2013 within the National Park boundary and is a useful source of data in identifying trends in the economy. The AMR, at Page 10, states that the local economy of the National Park underpins its character and social structure. It notes that unemployment rates in the Park remain lower than the national average. Whilst tourism is the largest employment sector, with farming and forestry playing a significant part in the local economy, the AMR points out that:

*"The seasonality and low paid nature of tourism together with changes to farm incomes contributes to income levels in the North York Moors being below the regional average. One of the challenges of the LDF is to continue to encourage a range of employment opportunities in the Park..."*

14.45 One of the six themes contained in the Core Strategy and Development Policies Document is to support the rural economy. The two spatial objectives are to:

- support the tourism and recreation industry by ensuring that development contributes to the local economy and provides opportunities for enjoying the Park's special qualities; and
- strengthen and diversify the local economy by supporting a range of opportunities for employment and training particularly in sustainable locations.

14.46 The NYMNPA seeks to broaden the range of opportunities for employment and carry out its duty to foster the economic and social well being of local communities.

14.47 In 2012/13, the total amount of additional employment floorspace (B1, B2 and B8 uses) was 3,592 sqm over baseline. However, the total amount of employment floorspace on previously developed land has only seen an increase of 70 sqm (B1 use) and there are no employment sites currently allocated within the National Park.

Ryedale Local Plan, March 2002<sup>xvii</sup>

14.48 The Ryedale Local Plan was adopted in March 2002 and sets out a vision of a "strong and prosperous community enjoying and maintaining a high quality environment". To help achieve this vision RDC set itself overall service objectives including:

*"... to establish and maintain the necessary conditions and infrastructure to provide an environment in which a strong, diverse and expanding local economy can flourish."*

14.49 Policy EMP15 'North Yorkshire Power Project, East Knapton' refers specifically to the site occupied by the KGS. It states that further development around the power plant will only be permitted where it is essential for the proper functioning of the gas plant and has to be accommodated on the site and is situated wholly within the existing site boundary.

The Ryedale Plan – Local Plan Strategy May 2012<sup>xviii</sup>

14.50 The Ryedale Plan – Local Plan Strategy (LPS) was adopted in September 2013 and provides a strategic framework for development within the District up for the period up to 2027.

14.51 In Section 5 (Economy), the Plan acknowledges that agriculture is a traditional sector of the economy while tourism is particularly strong in the north of the district. However, the District's economic base is dependent on traditional sectors or a small number of large businesses. Consequently, the LPS seeks to diversify the District's economy in order to reduce dependence on vulnerable sectors and widen the choice of employment opportunities.

14.52 Policy SP6 'Delivery and Distribution of Employment/Industrial Land and Premises' indicates an intention to continue expansion of existing businesses.

*"The intention is to support established sectors in the local economy and provide opportunities for diversification which, over the plan period, will enable a step change in business growth, improved skills and a more sustainable local economy. This will include the provision of higher quality employment sites and premises which will ...*

- Offer opportunities for specialist sectors including precision engineering and advanced manufacturing and existing key businesses. This will include expansion space for existing businesses, new sites and premises for move on accommodation to support business growth and growing these key clusters...*

*Significant Industrial Processes in Open Countryside Locations*

*Major industrial processes involving the extraction, utilisation, working or harnessing of natural materials or land assets will be supported where:*

- *They are required in that location and no other suitable sites are available in the locality*
- *They can be satisfactorily accommodated on the highway network and will not lead to significant adverse highways impacts*
- *They do not adversely affect the amenity of neighbouring occupants of the site ...*
- *They can be satisfactorily accommodated in the surrounding landscape ...*
- *The economic benefits to the District outweigh any adverse impacts."*

**Assessment Methodology**

14.53 The assessment focuses on those elements of the Development that are expected to give rise to significant effects and will, therefore, examine changes in labour supply and employment and gas supply, these comprising the economic elements. As the Development relates to industrial use only, social or community elements such as housing, education and health will not be assessed within this Chapter.

*Study Area*

14.54 The Site is located partly within the North York Moors National Park and partly within Ryedale District in North Yorkshire (see Figure 14.1). As stated in Chapter 1 NYMNP and NYCC are the two mineral planning authorities that will determine the planning application. Therefore North York Moors, North Yorkshire and Ryedale District administrative areas are considered in assessing local baseline conditions. As the Development covers an extensive distance, from the Ebberston Moor South (EMS) Well Site (north) to the Knapton Generating Station (KGS) (south), and across a primarily rural area, it is not deemed pertinent to assess demographics at ward level.

*Population*

14.55 Baseline population statistics will be drawn from ONS, 2001 and 2011 Census data and the most recent, 2012-based sub-national population projections (SNPP).

*Employment*

14.56 Baseline assessment of the local economic profile will largely draw upon data provided by NOMIS labour market profiles (including ONS, Annual Population Survey data and out of work benefits Claimant data); ONS, Annual Survey of Hours and Earnings; and ONS Job Densities. Investigation of the key employment industries driving the economy within the study areas will be conducted based on Experian Economics data.

14.57 Assessment will be both qualitative and quantitative (incorporating employment information provided by the Applicants) and will be considered at construction, operational and decommissioning/restoration phases.

## Determining Significance of Effects

14.58 Where an economic effect is considered to be significant, the significance has been classified as either:

- Major – an effect which in isolation could have a material influence on the decision making process;
- Moderate – an effect which on its own could have some influence on decision making particularly when combined with other similar effects; or
- Minor – an effect which on its own is likely to have a minor influence on decision making but when combined with other effects could have a more material influence.

14.59 In this assessment, the significance matrix set out in Table 14.1 has been used to define the level of significance of effects.

**Table 14.1: Significance Matrix**

Magnitude	Sensitivity		
	High	Medium	Low
Major	Major	Major/Moderate	Moderate/Minor
Moderate	Major/Moderate	Moderate/Minor	Minor
Minor	Moderate/Minor	Minor	Minor/Negligible



14.60 Effects are also described as:

- Adverse – detrimental or negative effects to an environmental resource or receptor; or
- Beneficial – advantageous or positive effect to an environmental resource or receptor.

14.61 Where an effect is considered to be not significant or have no influence, irrespective of other effects, this is classified as 'negligible'.

#### Limitations and Assumptions

14.62 Production of this chapter has not made use of limitations or assumptions.

### **Baseline Conditions**

#### *Population*

14.63 In 2001 the population of the North York Moors National Park was 23,939 and that of Ryedale District, 50,872. By 2011 the population of the North York Moors National Park had decreased slightly, by 0.4% to 23,380. Ryedale District had, by contrast, increased in population by 1.6% to 51,700.

14.64 In 2011 the working age population in the North York Moors National Park equated to 61.0% of the overall population. In Ryedale District this equated to a similar 60.2%. Both areas demonstrated a similar working age population profile to North Yorkshire overall which, in 2011, equated to 63.3% of the overall population.

14.65 From 2001 to 2011, the age profiles of the North York Moors National Park, Ryedale District and North Yorkshire each demonstrated significant increases in the elderly population and decreases in the percentage of young since 2001. Consistently across all three areas, increases were experienced in the age bands: 15 to 24; 45 to 64; 65 to 74 and 75+, whilst decreases were seen in age bands 0 to 4; 5 to 14 and 25 to 44. The trend therefore indicates that, as with the Nation overall, the Site is located in an area demonstrating an ageing population.

*Population Projections*

14.66 The recently published ONS, 2012-based sub-national population projections for Ryedale District and North Yorkshire County demonstrate (Table 14.2) that between 2012 and 2037<sup>1</sup>, the population of Ryedale District, and North Yorkshire overall, is set to increase 5.8% and 6.6%, respectively over the 25 year period.

**Table 14.2: Quinary Population Projections – Percentage Change from 2012**

	<b>2012 2017</b>	<b>2012 2022</b>	<b>2012 2027</b>	<b>2012 2032</b>	<b>2012 2037</b>
Ryedale District	0.8%	2.5%	4.0%	5.0%	5.8%
North Yorkshire County	1.2%	2.9%	4.4%	5.6%	6.6%

Source: ONS, 2012-based sub-national population projections

14.67 By 2037 it is anticipated that there will be approximately 55,000 people resident in Ryedale District and approximately 642,000 in North Yorkshire. There are no population predictions available specifically for the North York Moors National Park, although North Yorkshire encompasses the area within the National Park.

*Economic Profile*

14.68 In 2011, the population of the North York Moors National Park comprised 17,521 residents between the ages of 16 and 74, 67.9% of whom were economically active; a lower employment rate than Ryedale (70.9%) or North Yorkshire (71.9%) (Table 14.3). Conversely, the level of economically inactive residents in NYMNP was greater than in either Ryedale or the County overall. The unemployment rate, at the time of the 2011 Census, was also lower in NYMNP (2.2%) than in Ryedale (2.7%) or North Yorkshire (3.0%).

<sup>1</sup> 2012-based SNPP are produced for the years 2012 to 2037

**Table 14.3: Economic Activity of Residential Population - 2011 Census**

	North York Moors National Park	Ryedale District	North Yorkshire County
Total working age population (WAP) (between 16 – 74)	17,521	37,581	436,806
% of total WAP who are economically active (incl. unemployed)	67.9%	70.9%	71.9%
% of total WAP who are economically inactive	32.1%	29.1%	28.1%
% of total WAP who are unemployed	2.2%	2.7%	3.0%

Source: 2011 Census data via ONS and NOMIS

14.69 Examination of unemployed residents claiming out of work benefits in the form of Job Seeker Allowance (JSA) identifies that, in May 2014, there were 361 claimants living in Ryedale and a total of 5,044 claimants in the North Yorkshire County, overall. ONS do not produce JSA data for National Parks.

14.70 Of the May 2014 claimants, 120 residents of North Yorkshire were seeking employment in the skilled construction and building trades and a further 139 in process, plant and machine operative occupations, within which energy plant operative occupations are categorised.

#### Employment by Industry

14.71 As demonstrated in Table 14.4, the local economy within Ryedale District is primarily driven by the manufacturing industry, a feature which Ryedale District perceives as subject to vulnerability. In the Ryedale District Annual Monitoring Report (AMR), 2012<sup>xix</sup> it states that:

*"Within Ryedale the proportion of the district's workforce employed within agriculture is over five times that of the national average, and manufacturing is over 50% greater than the national average, however, these sectors are forecast to become vulnerable. Therefore, there is a need to diversify the economy of the District by stimulating new and existing growth sectors." (Page 6 & 7, Paragraph: Employment)*

14.72 No data is available specifically for the North York Moors National Park. Therefore the data for North Yorkshire County Council (which incorporates the majority of the North York Moors National Park area), is provided in Table 14.4.

**Table 14.4: Main Sectors of Employment - 2011**

	<b>Largest Employment Sector</b>	<b>Second Largest Employment Sector</b>	<b>Third Largest Employment Sector</b>	<b>Fourth Largest Employment Sector</b>
Ryedale District	Manufacturing (14.9%)	Accommodation and Food Services (8.7%)	Education (8.4%)	Retail (8.3%)
North Yorkshire County	Retail (10.3%)	Accommodation and Food Services (9.1%)	Education (8.9%)	Manufacturing (7.9%)

Source: Experian Economics derived workplace employment (based on 2011 Census)

#### *Average Earnings*

14.73 The Ryedale AMR states that there is a pressing need to diversify the economic base of the District, within which they would include the need to increase wage levels (AMR, Page 7). Data provided at Local and County Authority level within the ONS, Annual Survey of Hours and Earnings demonstrates that, wages earned for jobs based in both Ryedale and North Yorkshire have undergone minor fluctuations, but culminating in minor increases between 2010 and 2013 (in Ryedale increasing from £423 per week to £425 and in North Yorkshire from £444 per week to £454) (Table 14.5). Overall, wages in Ryedale District have remained consistently below the North Yorkshire average.

**Table 14.5: Average Earnings, 2008 to 2011**

	<b>Average Weekly Pay</b>	<b>Average Annual Pay</b>
<b>Ryedale District</b>		
2010	£423	£20,277
2011	£399	£21,040
2012	£396	£19,599
2013	£425	£21,214
<b>North Yorkshire</b>		
2010	£444	£23,373
2011	£454	£23,478
2012	£445	£23,000
2013	£454	£24,052

Source: ONS, Annual Survey of Hours and Earnings (workplace analysis) (via NOMIS)

#### *Availability of Employment*

14.74 Job density levels (that is the number of workplace jobs per population aged 16 and 64) in Ryedale District have traditionally been comparatively high. However, despite reaching a peak of one job per working age resident in the years 2005 and 2006, job densities in

Ryedale District have declined in more recent years from 0.95 in 2007 to 0.79 by 2012, reasonably attributable to the recent recession. North Yorkshire overall has maintained a relatively constant job density level with the 2012 job density of 0.85 matching that of the rate ten years previously, in 2003.

- 14.75 However, despite the historically high levels of job density in Ryedale District there were, by 2012, a total of 5,000<sup>2</sup> fewer jobs in Ryedale District than in 2003. This coupled with the decrease in job density indicates that job availability at District level has not kept pace with population increases.
- 14.76 By comparison, the total number of jobs in North Yorkshire overall increased by 7,000, from 307,000 in 2003 to 314,000 by 2012.
- 14.77 This disparity in economic fortunes could, in part, be attributable to the high concentrations of manufacturing within Ryedale and, if sustainable economic viability is to be achieved within the District, increased local provision of appropriate employment opportunities needs to take place to avoid a) a further drop in job density and b) the need for increased long-distance commuting.

#### *Commuting Patterns*

- 14.78 At the time of the 2011 Census, the majority of economically active residents in both Ryedale and North Yorkshire overall, worked mainly at or from home. This particular demographic is, in all probability, a regional factor and attributable of the high concentration of agriculture within the County.

**Table 14.6: Distance of Travel to Work - 2011 Census (%)**

	<b>Ryedale District</b>	<b>North Yorkshire County</b>
Less than 2km	18.5%	21.3%
2km to less than 5km	7.6%	11.8%
5km to less than 10km	8.9%	10.5%
10km to less than 20km	15.3%	14.2%
20km to less than 30km	8.7%	8.5%
30km to less than 40km	4.0%	4.0%
40km to less than 60km	3.4%	2.8%
60km and over	5.4%	4.1%
Work mainly at or from home	20.1%	15.2%
Other	8.0%	7.5%

Source: ONS, 2011 Census, Table QS702EW

NB: 2011 Census, Distance to Travel Data is unavailable for National Park geography

<sup>2</sup> Rounded by ONS

14.79 Agriculture and manufacturing are primary employers within Ryedale and North Yorkshire and are likely to account for the majority of the respective 38.6% and 36.5% of residents either working from home or commuting less than 2 km. These industries, however, are also facing vulnerable futures and, if local and sustainable economic viability is to be achieved and a temptation to commute to larger employment areas such as Scarborough, Whitby and Middlesbrough be avoided, increased employment opportunities closer to home will be required.

*Economic Characteristics of the Site*

14.80 There are no employment opportunities currently on the EMS Well Site. There are, however, 23 full time staff employed at KGS.

*Economic Profile Summary*

14.81 Whilst availability of jobs within Ryedale District has traditionally been comparatively high and levels of unemployment low, the pattern has changed in recent years. With local high employing industries such as agriculture and manufacturing demonstrating downturns nationally, it will be important to ensure that there is a sufficient supply of new employment opportunities, across a range of economic uses to enable the economy of Ryedale District, North York Moors National Park and North Yorkshire to expand and diversify.

**Likely Significant Effects**

Construction Phase

*Effects on Population*

14.82 It is anticipated that the construction phase of the Development will occur between 2015 and 2016 (see Chapter 5 Construction Methodology and Programme). There will be a requirement for people with specialist skills to be employed who may need to temporarily be brought in from outside these areas. Overall there will be a temporary effect of small magnitude and negligible significance on population during the construction phase.

*Effects on Employment and Local Economy*

14.83 It is anticipated that approximately 50 workers will be employed across the diverse range of construction trades required during the construction of the Development as described in Chapters 3 and 5.

- 14.84 The construction of the Development will be overseen by specialist contractors. The Applicant will seek to recruit suitably skilled and qualified local staff during the construction period. Where appropriate, the main construction contractor will also encourage and assist the subcontractors in the promotion of relevant training where this will help to advance employment prospects of local workers.
- 14.85 Given the long term decline in the number of job opportunities in manufacturing and agriculture, there is likely to be a growing pool of indigenous labour supply available in the North York Moors National Park and Ryedale District for these semi-skilled activities.
- 14.86 In addition to the direct employment generated during the construction phase of the Development, there will also be an indirect effect on employment and the local economy through the use of local suppliers for construction and process materials, plant and equipment. Local services such as restaurants, cafes and petrol stations are also likely to experience a temporary boost through the provision of meals, refreshments and fuel to the short-term workforce.
- 14.87 Finally, should it transpire that specialist contractors or engineers who live outside North Yorkshire are required on a temporary basis during the construction phase, this will potentially lead to additional custom for local hotels and Bed & Breakfast establishments resulting in a short-term boost to local business.
- 14.88 The introduction of approximately 50 direct jobs and the spin-off indirect employment and boost to local economy is considered to have a short-term, temporary, minor beneficial effect on employment.

#### Operation

##### *Effects on Population*

- 14.89 It is envisaged that the majority of those employed at the Development during operation will be drawn from the Applicant's current employees. Should any specialised engineering roles require the relocation of appropriately qualified staff, these will be minimal. Overall there will be a long-term, negligible effect on population.

##### *Effects on Employment*

- 14.90 The Development will create three jobs to oversee the operations at the EMS Well Site for the operational lifespan of the Development, and will be fulfilled by the Applicant's employees. It is also anticipated that indirect employment will grow as a result of: deliveries

to and from the EMS Well Site; the need for maintenance of plant machinery, the pipeline and associated elements including roads, fences and landscaped areas. Such maintenance will generate employment on a regular basis and throughout the lifetime of the Development.

- 14.91 As a direct consequence of piping up to 15 mmscfd of gas from the EMS Well Site, the existing 23 jobs at the KGS will be safeguarded. In addition, the sustainability of operations at KGS will be enhanced as the additional gas will enable the turbines to be operated for lengthier periods each day than at present and, as a consequence, result in improved efficiency.
- 14.92 The addition of both direct and indirect employment growth to the local area during the operational phase of the Development (up to 15 years) and the safeguarding of existing employment at the KGS, is considered to have a long-term, minor to moderate beneficial effect on employment.

#### *Gas Supply*

- 14.93 The extraction of natural gas is becoming more important as the UK becomes increasingly reliant on the importation of gas from overseas to meet national demand. The Development, through the production of natural gas to be used as a fuel-gas to generate power for up to 15 years, will help to facilitate the UK's ability to manage fluctuations (daily, weekly and seasonally) which occurs in gas supply and demand. It will also provide the following significant national benefits for industry, commerce and domestic gas and electricity consumers through:
- Lower costs for householders;
  - Lower costs for commercial and industrial companies, with resulting improved competitiveness, job security and creation and attraction of inward investment; and
  - Improvements to the security of supply for domestic and industrial electricity consumers.
- 14.94 Overall there will be long-term effect of major beneficial significance on gas supply.



## Decommissioning and Restoration

### *Effects on Population*

14.95 It is anticipated that the decommissioning and restoration phase of the Development will employ up to 10 workers. As with the construction phase, it is not expected that the workers will relocate to the area. However there may be a requirement for people with specialist skills to be employed who may need to temporarily be brought in from outside the area. Overall, there will be a temporary effect of small magnitude and negligible significance on population during decommissioning and restoration.

### *Effects on Employment*

14.96 Up to 10 workers are expected to be employed during the decommissioning and restoration phase which will include the dismantling of all plant, equipment, pipes, cables, buildings, security fencing and surface installations and with all concrete installations being broken up and removed along with access roads and tarmac wearing and base course within the Site. Restoration of trees and hedgerows within the Site will also take place during this phase. There will be no decommissioning and restoration works occurring along the length of the pipeline between the EMS Well Site and KGS or at the KGS itself.

14.97 It is, therefore, considered that the decommissioning and restoration phase will have a temporary minor beneficial effect on employment.

## **Mitigation Measures**

### *Construction Phase*

14.98 No mitigation measures for population and employment are required during construction of the Development as there will be no significant adverse effects.

### *Operation*

14.99 No mitigation measures for population, employment and gas supply are required during operation of the Development as there will be no significant adverse effects.

*Decommissioning and Restoration*

14.100 No mitigation measures for population and employment are required during construction of the Development as there would be no significant adverse effects.

**Residual Effects***Construction Phase*

14.101 During the construction phase, the Development is likely to generate approximately 50 direct job opportunities and further indirect job opportunities which represents a temporary effect of minor beneficial significance.

*Operation*

14.102 The Development will assist in meeting future demand and secure energy supplies in the UK by the production of gas to be used as fuel-gas to generate power at KGS for up to 15 years. The region already contributes to production of more energy to the UK than is consumed. The Development will help ensure that the region remains a major energy provider and prudent user of natural resources in the Ebberston Moor gas field. In addition the operation of the Development will create three jobs for the Applicant's employees relating to the management of operations at the Site and site management along with indirect jobs. In addition, it will help safeguard the employment of the 23 existing employees at KGS.

14.103 Overall the gas supplied as a result of the Development will create a long term effect of major beneficial significance and the job creation will create an effect of minor beneficial significance.

*Decommissioning and Restoration*

14.104 During the decommissioning and restoration phase, the Development is likely to generate approximately 10 direct job opportunities and further indirect job opportunities which is considered to represent a temporary effect of minor beneficial significance.

### **Cumulative Effects**

14.105 In the assessment of economic effects of the Development, due consideration has been given to two cumulative schemes: The Ebberston Early Development Scheme (EDS) and the York Potash scheme.

#### *Effects on Population*

14.106 There will be negligible effects on population resulting from the cumulative schemes during construction, completed development and decommissioning and restoration as it is anticipated that the majority of the employees will already live in the North York Moors National Park or surrounding area. It is envisaged that very few specialist contractors or engineers will need to permanently move into the area.

#### *Effects on Employment*

14.107 The earlier, EDS scheme anticipated the creation of approximately 30 jobs during the construction phase, three jobs (to be fulfilled by the Applicant's employees) during the operational phase and a further 10 jobs during the decommissioning and restoration phase of the project. In addition, considerable indirect economic vitality will be introduced to the North York Moors National Park and North Yorkshire through local procurement of supplies and services.

14.108 The York Potash scheme aims to provide the first potash mine in the UK for over 40 years. During the construction phase, the hundreds of construction related jobs anticipated will range from experienced engineers to semi or unskilled workers. Whilst some of these positions will require specific experience which is not available in the local area, they will ensure that construction contractors maximise opportunities for local people and work with local councils and colleges to provide training where necessary. By operational Phase 2, the scheme will create over 1,000 long-term, skilled jobs and it is the intention of the Applicant's to ensure that at least 80% of the workforce will be employed from the local area. To help achieve this, the scheme has already developed a skills strategy, working with schools, colleges and universities to ensure that young people can understand the types of jobs that will be available and the skills and qualifications required to fulfil these roles. In addition, the scheme will work with Local Enterprise Partnership, Councils and business networks to develop a supply chain engagement strategy to maximise opportunities in the local supply chain.

*Effects on Economy*

- 14.109 Once operational, the extraction of natural gas will lessen the reliance on the importation of gas from overseas to meet national demand. The EDS scheme, through the provision of gas for up to five years, will temporarily help to facilitate the UK's ability to manage fluctuations which occur in gas supply and demand. It will result in lower supply costs for households, lower costs for commercial and industrial companies, with resulting improved competitiveness, job security and creation and attraction of inward investment and will improve the security of supply for domestic and industrial electricity consumers.
- 14.110 The York Potash scheme will extract polyhalite, a unique multi-nutrient form of potash and will not only safeguard UK supplies but will also boost the local, regional and UK national economies.
- 14.111 Overall, it is anticipated that the cumulative schemes will have a negligible effect on population and a major beneficial effect on employment and the economy.

**Summary**

- 14.112 The Development is anticipated to generate short-term, temporary employment for approximately 50 workers during construction and up to 10 workers during decommissioning and restoration, in trades likely to have a readily available and local labour force; and further long-term employment for three workers (already employed by the Applicant). In addition, considerable indirect economic vitality will be introduced to the North York Moors National Park, Ryedale District and North Yorkshire through local procurement of supplies and services.
- 14.113 Once operational, the Development will help deliver secure supplies of energy through the production and use as a fuel-gas to generate power. The gas supply infrastructure will add to the reliability of national energy supply from which every user of the system benefits creating long-term major beneficial effects.
- 14.114 Table 14.7 provides an overall matrix of the likely significant effects of the Development.

**Table 14.7: Table of Significance –Economics**

Potential Effect	Nature of Effect (Permanent/ Temporary)	Significance (Major/Moderate /Minor) (Beneficial/Adverse/ Negligible)	Mitigation / Enhancement Measures	Geographical Importance*							Residual Effects (Major/Moderate/ Minor) (Beneficial/Adverse/ Negligible)
				I	UK	E	R	C	D/NP	L	
<b>Construction Phase</b>											
Effects on Population	Short term temporary	Negligible	None Required						*	*	Negligible
Effects on Employment	Short term temporary	Minor Beneficial	None Required					*	*	*	Minor Beneficial
<b>Completed Development</b>											
Effects on Employment	Long term temporary	Minor – Moderate Beneficial	None Required					*	*	*	Minor – Moderate Beneficial
Effects on Gas Supply	Long term temporary	Major Beneficial	None Required		*						Major Beneficial
<b>Demolition and Restoration</b>											
Effects on Employment	Short term temporary	Minor Beneficial	None Required					*	*	*	Minor Beneficial
<b>Cumulative Schemes</b>											
Effects on Population	Long term temporary	Negligible	None Required						*	*	Negligible
Effects on Employment	Long term temporary	Major Beneficial	None Required					*	*	*	Major Beneficial
Effects on Economy	Long term temporary	Major Beneficial	None Required		*						Major Beneficial

**\* Geographical Level of Importance**

I = International; UK = United Kingdom; E = England; R = Regional; C = County; B = Borough; D = District; NP = National Park; L = Local

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- <sup>i</sup> Energy White Paper – ‘Our energy future – creating a low carbon economy’
  - <sup>ii</sup> Ministerial Written Statement – ‘Energy Statement of Need for Additional Gas Supply Infrastructure’
  - <sup>iii</sup> Department for Trade and Industry, July 2006 – The Energy Challenge
  - <sup>iv</sup> Energy White Paper, 2007 – ‘Meeting the Energy Challenge – A white paper on Energy’
  - <sup>v</sup> Government Response to Malcolm Wick’s Review of International Energy Security – ‘Energy Security: A national challenge in a challenging world’
  - <sup>vi</sup> Department of Energy and Climate change (DECC), April 2010 – ‘Gas Security of Supply’
  - <sup>vii</sup> Central Government, December 2012 – ‘Gas Generation Strategy’
  - <sup>viii</sup> Central Government, March 2012 – ‘National Planning Policy Framework’
  - <sup>ix</sup> Central Government, March 2014 – Planning Practice Guidance (PPG)
  - <sup>x</sup> Defra, March 2010 – ‘English National Parks and the Broads: UK Vision and Circular’
  - <sup>xi</sup> Government Office for Yorkshire and the Humber; Yorkshire Forward; and the Yorkshire and Humber Assembly, February 2007 – ‘The Regional Energy Infrastructure Strategy for Yorkshire and Humber’
  - <sup>xii</sup> Regional Economic Strategy for Yorkshire and the Humber, 2006 – 2015 – ‘A Flourishing Region’ Progress Update
  - <sup>xiii</sup> North Yorkshire Minerals Waste and Local Plan
  - <sup>xiv</sup> NYMNP, Local Development Framework
  - <sup>xv</sup> NYMNP, Joint Minerals and Waste Plan
  - <sup>xvi</sup> NYMNP, Annual Monitoring Report 2013
  - <sup>xvii</sup> Ryedale District Council, March 2002, Ryedale Local Plan
  - <sup>xviii</sup> Ryedale District Council, May 2012, The Ryedale Plan – Local Plan Strategy Submission Document
  - <sup>xix</sup> Ryedale District Council, December 2012, Annual Monitoring Report