Sustainability Statement

Application for the Development of Houghton Main Renewable Energy Centre (REC) comprising a Timber Resource Recovery Centre (TRRC) and Associated Infrastructure

Land located off Houghton Main Colliery Roundabout, Park Spring Road, Houghton Main, Barnsley

Peel Environmental Management (UK) Limited and Houghton Main Waste Limited

CRM.066.004

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Project:	CRM.066.004
Location:	Land located off Houghton Main Colliery Roundabout, Park Spring Road, Houghton Main, Barnsley
For:	Peel Environmental Management (UK) Limited
Status:	Final
Date:	February 2015
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1.0 Introduction

Introduction

1.1 This Sustainability Statement accompanies a planning application made by Peel Environmental Management (UK) Limited and Houghton Main Waste Limited (Peel) for the works necessary to develop a Renewable Energy Centre (REC) on land located off the Houghton Main Colliery Roundabout, Park Spring Road, Houghton Main, Barnsley.

1.2 The scope of this sustainability statement is restricted to the proposed development described in the Application Forms and the Planning Statement which accompanies the application.

1.3 This document comprises the Sustainability Statement accompanying the proposed development, which has been assessed against National and Local policy and is structured in accordance to Barnsley Councils Core Strategy requirements.

1.4 This Sustainability Statement provides a framework for assessing sustainable development against a number of sustainability principles. This Statement has been adapted following a review of local planning policy to make sure that it is specific to the local circumstances.

1.5 It is however considered that the proposed development is considered to be contributing positively to the sustainability objectives used to assess the development.

Sustainable Development

With respect to sustainable development within Houghton Main, a number of key policy objectives have been identified at a national and local level. Therefore, this sustainability statement will assess the performance of the proposed development against policy at all levels, including the adopted policies of the Barnsley Metropolitan Borough Council's (BMBC) Core Strategy.

1.6 The UK Sustainable Development Strategy, *Securing the Future* (Defra, March 2005) sets out the guiding principles of sustainable development and identifies that sustainable development;

> *"……will be pursued in an integrated way though a sustainable, Innovative and productive economy that delivers high levels of employment; and a just society that promotes social inclusion, sustainable communities and personnel wellbeing. This will be done in ways that protect and enhance the physical and natural environment, and use resources and energy as efficiently as possible"*

1.7 The goal of sustainable development is therefore to seek to simultaneously progress economic, social and environmental policies in ways that develop and maintain a good quality of life for the community and our future generations.

Key Drivers of Sustainability

National Policy

1.8 In preparing this Sustainability Statement, it is acknowledged that, as embodied by the National Planning Policy Framework (NPPF), the presumption in favour of sustainable

development is the core principle underpinning the planning process and planning policy at national and local levels.

1.9 The NPPF sets out core land-use planning principles which underpin plan-making and decision taking. Of these, the following has been identified as being relevant to sustainability:

> "*Support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change, and encourage the reuse of existing resources, including conversion of existing buildings, and encourage the use of renewable energy resources (for example, by the development of renewable energy)",*

Local Policy

1.10 Local Policy being formulated by BMBC also seeks to drive sustainable development and will be most relevant to the proposed REC. The Barnsley Core Strategy has specific policies that relate directly to sustainable waste management.

Sustainability and Climate Change

1.11 Promoting sustainable development and reducing the Boroughs impact on climate change are overarching principles of this Core Strategy, in accordance with Planning Policy Statement 1 and its Annex. Sustainable development is commonly defined as "*The goal of sustainable development is to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life, without comprising the quality of life for future generators*". The use and development of land will be assessed against the objective of securing sustainable development within Barnsley to meet its environmental, economic and social needs. The Core Strategy states that proposals will be supported where they deliver:

- *Efficient use of land and infrastructure, particularly by utilising previously developed ('brownfield') land, achieving housing density targets to minimise the use of greenfield sites and promoting appropriate mixed land uses integrated with the existing built form*
- *Economic and social well-being including health and safety of the population*
- *Reductions in social inequalities and disadvantages within the community particularly in relation to the location of employment, housing, shopping and other community facilities*
- *Protection or enhancement of the quality of natural assets including water, air, soil, minerals and biodiversity Vibrant and viable town centres*
- *High quality well designed development taking into account local distinctiveness*
- *Improved quality of local landscapes and protection of the character of the wider countryside*
- *Preservation or enhancement of the historic and cultural features of acknowledged importance*
- *Convenient and integrated accessibility by public transport, cycle and foot and development located to reduce the need to travel; and*
- *Efficient use of natural resources such as water*
- *Renewable energy generation to reduce the causes of climate change*

Strategic Objectives

1.12 **OBJECTIVE 1: To be the spatial interpretation of the Sustainable Community Strategy**

By:

- *Preparing for and adapting to Climate Change*
- *Fostering the 'Remaking' of Barnsley town centre and promoting it as the main place for shopping, indoor leisure, culture and business and creating a 21st century market town*
- *Focusing development and growth on Urban Barnsley and the Principal Towns*
- *Regenerating the Dearne area and supporting the Dearne Valley Vision*
- *Ensuring new development is in places where it will be accessible and inclusive*
- *Promoting the role of settlements by making sure development is placed within them and makes them attractive, safe and distinctive with convenient access to good quality local services*
- *Making the most of our strategic location between the Sheffield and Leeds City Regions*

1.13 **OBJECTIVE 6: To ensure all new development is sustainably designed and built to the highest standards by:**

- *Embracing the principles of sustainable design including measures to prepare for, adapt to and reduce impact on climate change and mitigate flood risk*
- *Insisting on development that contributes to and enhances local distinctiveness and is built in appropriate materials*
- *Requiring developments to achieve nationally recognised design and sustainability standards*
- *Protecting and improving the heritage of the Borough*
- *Making sure that issues relating to contaminated land are safely addressed before sites are developed*

1.14 **CSP 1: Climate Change**

Development will be expected to:

- *Reduce and mitigate the impact of growth on the environment and carbon emissions*
- *Ensure existing and new communities are resilient to climate change*
- *Harness the opportunities that growth, and its associated energy demands, brings to increase the efficient use of resources through sustainable construction techniques and the use of renewable energy*

We will take action to adapt to climate change by:

- *Giving preference to development of previously developed land in sustainable locations*
- *Locating and designing development to reduce the risk of flooding*
- *Promoting the use of sustainable drainage systems*
- *Encouraging environments that promote biodiversity and improve the Borough's green infrastructure*

1.15 The proposed development would assist in meeting the above key aims and provides an opportunity to significantly reduce the CO2 levels and contribute to providing development on previously developed land.

1.16 It is important to note that opportunities for incorporating sustainable features into the development proposals was a fundamental part of the design process. The design process incorporated the latest standards in sustainable design.

1.17 The table below describes how the proposed development considers the economic, social and environmental dimensions of sustainable development and identifies where mitigation measures will be implemented.

1.18 The table is structured around the objectives identified in the UK Government Sustainability Strategy '*Securing our Future'* (2005) and takes into account the planning principles and priorities identified in the NPPF and the Barnsley Core Strategy.

2.0 Sustainability Objectives and Response

Objective	Indicator	Response to Objective
Sustainable Consumption and Production	Promotion of sustainable development practices. Minimise consumption of natural resources	<u>Sustainable production of Biomass</u> Peel recognises that a 'lifecycle' approach must be adopted, evaluating the level of greenhouse gases which are indirectly emitted from harvesting and transporting the biomass. Northern Bio Power remains in discussions with various suppliers of biomass, and whilst no contracts have been determined, it continues to be the intention that biomass is sourced sustainability. <u>Conversion of Biomass into bioenergy</u> The nature of the proposed development is considered to incorporate sustainable development practices. Biomass is a recognised low carbon, renewable energy source and the REC will contribute to the governments legally binding targets for: • 15% of energy to be generated from renewable sources by 2020 (*UK Renewable Energy Strategy DECC 2009*) • A 34% cut in carbon emission on 1990 levels by 2020 (*UK Low Carbon Transition Plan, DECC 2009)* The role of biomass in helping to meet these commitments is widely recognised and its use is encouraged. The proposed development facilitates a move up the waste hierarchy by managing and recovering energy from material that would otherwise either be disposed to landfill or exported overseas for treatment.

		By using waste materials as opposed to fossil fuels to generate energy, the proposed development provides the opportunity to contribute towards minimising the consumption of natural resources.
	Reuse of previously developed land and buildings	All of the proposed development is on previously developed land at Houghton Main. The site was historically part of the Houghton Main Colliery Site and was reclaimed some time ago. The colliery was subsequently open cast mined by UK Coal in the late 1990s. Open casting was completed and the land was reclaimed and compacted to provide a platform suitable for industrial development. Developing a waste to energy facility on this site will provide a sustainable use of this previously developed land.
Climate Change and Energy	Promote prudent use of energy and encourage use of renewable energy	Biomass is expected to play a key role in the Governments plans to meet Renewable Energy targets, as well as longer term carbon reduction targets to 2030 and 2050 (*UK Bioenergy Strategy, DECC 2012*). The proposed REC will contribute to these national targets. The site itself makes use of the renewable energy it generates, and therefore the site does not require additional non-renewable energy to run. Cladding materials would be selected with reference to the current BRE's Green Guide to Specification to ensure that the materials used meet suitable environmental and sustainability standards. The introduction of energy saving design would be of particular importance in the design of the administration and office spaces. At these locations energy efficiency would be achieved through the use of high insulation materials, glazing and use of power saving measures such as intelligent lighting systems etc. The use of sustainable materials will be maximised in the construction of the REC and will include the use of recycled building materials where possible. The use of materials requiring minimum ongoing and future maintenance will be maximised.

	Contribution to a reduction in Greenhouse Gases	Sustainably sourced biomass is a 'Carbon lean Fuel' producing a fraction of the carbon emissions compared to fossil fuels. The proposal seeks to protect and enhance the air quality, including the reduction of air pollution and the emission of greenhouse gases. The generation of electricity from waste will help reduce the burning of fossil fuels that cause greenhouse gas emissions. The reduction in the amount of waste going to landfill will also reduce the amount of landfill gases such as methane which contributes to the greenhouse effect. The air quality assessment prepared as part of the Environment Impact Assessment for the proposed REC concludes that there will be negligible impacts on air quality arising from the development. The operational impacts of increased traffic have been discounted as insignificant using published screening criteria, and therefore the development will not result in a significant increase in vehicle emissions. The operational impacts of the proposed TRRC on human health have been shown to be insignificant. Overall the operational impacts on air quality, human health and sensitive ecosystems are considered to be insignificant.
	Adaptation to the potential effects of climate change	A Flood Risk Assessment of the site was undertaken to identify the existing flood risk on the site and to identify what impacts the proposed development may have on flood risk. The FRA determines that the proposed development would be operated with minimal risk from flooding, would not increase flood risk elsewhere, and is compliant with the requirements of the NPPF.

		A surface water management strategy has been developed which provides the site with an effective and sustainable drainage system. The scheme will perform so as to limit runoff from the site to required rates.
	Does design of buildings take account of climate change impacts such as rising temperatures, stronger winds and subsidence?	Industrial buildings and equipment will be built to high standards and are designed to be resistant to various weather conditions. A Ground Conditions Assessment was undertaken and it was determined that the ground onsite was suitable for the proposed development in terms of stability. Foundation design for the buildings and external equipment, as a matter of standard practice will conform to minimising potential future risk of subsidence.
	Reduce high carbon travel	A full Transport Assessment has been undertaken in relation to the proposed development and can be found at Chapter 6 of the ES. A Framework Travel Plan also provides details of the recommended management and monitoring mechanisms and targets to be used to promote sustainable access and reduce the number of single occupancy car trips generated by the site. It has been demonstrated that the proposed REC will not have a significant environmental transport impact.
Natural resource protection and environmental enhancement	Conserve and enhance biodiversity and protect designated habitats and species.	A 2km interrogation of the DEFRA Magic database and Barnsley Biological Records Centre revealed the following nationally important designated sites: • West High Wood at 1.6km from the proposed site boundary, designated as a local Nature Reserve (**LNR**); • Carlton Main Brickworks, located approximately 1.3km from the proposed site boundary, designated as a Site of Special Scientific Interest (**SSSI**)

		There are no European Designated Sites (Ramsar, Special Areas of Conservation or Special Protection Areas) within 15km of the site. The Preliminary Ecological Appraisal undertaken for this application determines that the site is of low ecological value. The Ecology Assessment, Chapter 12 of the ES, concludes that the proposal site is surrounded by land of agricultural value. The relative nature conservation value of the proposal site is low and the site is considered to contain habitats and flora that are at most of local nature conservation significance. The proposal site sits within the Dearne Valley Nature Improvement Area. There are important ecological areas on the immediate peripheries of the site including an RSPB nature reserve. Locally there are environmental initiatives underway to maximise the value of important habitat in the area. It may be possible to offer habitat linkage opportunities though planting on site. The applicants have offered to make a financial contribution to ecological improvements within the Barnsley section of the Nature Improvement Area.
	Visual impact and design enhancement	A Landscape and Visual Impact Assessment (Chapter 9 of the ES) has been undertaken to determine if the proposed development poses a visual impact on local landscape character. The application site is situated within a landscape characterised by former, and continued industrial land uses. Therefore the landscape is reasonably robust in nature and has low sensitivity to development. Although the proposed buildings would be visible, they are not out of character of the setting.

		The inclusion of landscape elements would be beneficial to the site itself and the study area. The landscape proposals will provide mitigation for the lower level activity and features within the facility, particularly during the summer months. The quality and visual appearance and impacts of the REC proposal have been given very close attention and have been designed to a high quality to enhance the proposed built development. Overall, the development would not result in any significant landscape or visual adverse effects.
	Protect and enhance historic environment and assets	There are a number of designated nature conservation sites, included Local Nature Reserves (LNR) and Sites of Special Scientific Interest (SSSI) within 15km of the application site. The potential impacts of the proposed development on these sites are considered in the accompanying Environmental Statement in Chapter 9 (Landscape and Visual Amenity). There are no European Designated Sites (Ramsar, Special Areas of Conservation or Special Protection Areas) within 15km of the site.
	Maintain a high quality environment, in terms of air, soil and water quality	Air Quality- Potential air quality impacts during construction will be mitigated through appropriate construction management techniques (e.g. dust reduction) as defined in a Construction Environmental Management Plan. Water Quality- The site appears to be outside of any Source Protection Zones. However, there is no groundwater quality data for the site. Soil- The GroundSure GeoInsight report indicates that a large portion of the site and surrounding area consists of made ground.

		The site history as former railway sidings and in particular open cast mining presents a potential for residual poor soil and groundwater quality. Chapter 12 of the ES and the associated technical appendices have full assessed ground conditions in a phase 1 environment and mining report and a contamination assessment. Conclusions are based on intrusive site investigations and chemical tests. These reveal no constrains on development at this stage subject to further studies detailed in the reports.
	Mitigation of potential water pollution	During construction, best practices procedures will be followed to minimise the risk of pollution. The FRA assessed what impact the proposed development may have, and it has been demonstrated that both surface water and foul flows from the site can be managed such that flood risk to the site following development is not increased. The assessment concluded that the proposed development would be operated with minimal risk from flooding, would not increase the flood risk elsewhere, and is compliant with requirements of national policy.
Sustainable communities	Avoidance/mitigation of actual health risks	Appropriate construction management techniques (e.g. dust suppression) will be implemented as defined in a Construction Environmental Management Plan. Throughout the biomass handling process, dust suppression systems will be present to mitigate against fugitive dust emissions and the risk of fire. As part of the application, an air quality assessment has been conducted. The air quality modelling has concluded that air quality impacts from the proposed REC to human health and eco-systems will be insignificant.

		The assessment concluded that with appropriate mitigation strategies, potential impacts arising from construction dust will be insignificant.
	Impact on recreational facilities	There are no recreational facilities within a 2km search area of the proposed development. It is therefore considered that the proposed development will not have an impact on recreational facilities.
	Reduction of crime and fear of crime	The proposed site will incorporate site security including CCTV at the site entrance and where necessary around the operational areas of the site. The cameras would have a direct live feed to monitors in the Control Rooms and will be managed by the operations team and control room operator. Here the video images would be stored for 1 month to provide a visual record of activities. The site will be manned 24/7 and a controlled access system would also be in use. All the security measures would work in conjunction with one another so that no area of the REC is left without appropriate protection.
	Consultation with community in the development process	Peel has consulted over the last year extensively with the local community as part of the development process. Full details are contained within the Statement of Community Involvement (see Appendix 3). The consultation approach included a dedicated webpage; community contact points including a Freephone information line and dedicated email address; letters sent to community representatives; a community newsletter explaining the proposal; two, one day, drop-in public information days; and meetings with key-stakeholders. Local stakeholders had the opportunity to submit their views and feedback which was taken into consideration in the final design of the scheme and options. Consultation

		events provided opportunities for information to be provided to the public and queries to be clarified. Further consultation and information provision has been undertaken to support the development of the revised proposals.
	Support and maintain the local economy	The proposed development will provide a Renewable Energy Centre which will support the local economy on a long term basis by providing employment and work experience opportunities. It is expected that there will be a requirement for 25 full time staff to operate and maintain the facilities, and these jobs will be at various levels, consisting of management, administration, technicians, labourers and plant operators. There will also be a number of jobs created as an 'indirect' effect from the construction and operation phase. This will include additional expenditure on local goods and services. The Renewable Energy Centre endeavours to act as a good neighbour in the community by supporting a wide range of local initiatives such as work experience opportunities. It is also proposed to maintain close relations with the local community though both formal and informal discussions with representatives of parish, town, district and county councils as well as other stakeholders.
	Maintenance of property values	There are a few sparsely scattered farms and properties within the study area, the nearest being Crook Farm located approximately 0.8km to the west of the proposed development. There is no evidence to suggest that the proposed Renewable Energy Centre will have an effect on property values.
	Retention and/or creation of permanent jobs	The proposed scheme will generate 25 full time equivalent (**FTE**) permanent jobs during operation of the facility.

	Creation of contractual jobs	An estimated 200 FTE contractual jobs will be created during the construction of the facility, which is expected to last 24-30 months.
	Education and awareness	Northern Bio-Power is committed to working with schools and community organisations to promote awareness of renewable energy, and their role in providing it locally.
	Proposals to train local people and the unemployed.	There are no current proposals to train the unemployed, however Peel implements a work experience programme for young people enabling them to gain first-hand experience of the operations which take place.
Barnsley Metropolitan Council - Key Sustainable Development Objectives/The following policies seek to minimise the boroughs contribution to climate change and also provides a policy framework to ensure development is able to both mitigate and adapt to the effects of climate change.		
CSP 1- Climate Change	- Reduce & mitigate the impact of growth on the environmental and carbon emissions - Ensure existing and new communities are resilient to climate change - Harness the opportunities that growth, and its associated energy demands, brings to increase the efficient use of resources through sustainable construction techniques and the use of renewable energy	The proposed site is on previously developed land, hence protecting Greenfield sites. The site provides a renewable source of energy, thus reducing dependency on fossil fuels and the emissions associated with burning these. The development also relies on waste material that would otherwise potentially be sent to landfill sites. Therefore the proposal reduces the amount of waste going to landfill and the gases associated with landfill waste. It is proposed that a Construction Environmental Management Plan is prepared to reduce the environmental impacts during the construction phase of the proposed development. The proposed development has been designed to minimise the risk of flooding both on the site and in the surrounding areas. The majority of the site is within Flood Zone 1, representing less than a 1 in 1000 year chance of flooding. A small portion of the site is within Flood Zone 2. This part of the site is largely free of built form. The Air Cooling

	-Giving preference to development of previously developed land in sustainable locations; - Locating and designing development to reduce the risk of flooding; - Promoting the use of sustainable drainage systems; -Promoting investment in Green Infrastructure to promote and encourage biodiversity gain.	Condensers which are in this area are built on stilts, and therefore are raised above the flood risk area. The proposed site layout has been designed to minimise the flood risk to the surrounding area, and the proposal maintains capacity in the floodplain in Flood Zone 2 by being raised above the ground. The FRA demonstrates that the proposal would not increase flood risk elsewhere. It can be demonstrated within the FRA that the surface water and foul flows from the site can be managed such that flood risk on and off the site following development is not increased.
CSP2- Sustainable Construction	- Development will be expected to demonstrate how it minimises resource and energy consumption, compared to the minimum target under current Building Regulations Legislation, and how it is located and designed to withstand the longer term impacts of climate change. - All non-residential development will be expected to achieve at least BREEAM standard of 'very good' or equivalent.	The site buildings will have security and quality considered in the designs process of the development. During the construction phase, best practice measures will be undertaken to ensure that potential air, noise and vibration and pollution will be effectively managed and controlled. The building design would conform to the requirements of Part L of the Building Regulations ensuring high standards of energy efficiency. Cladding materials would be selected with reference to the current BRE's Green Guide to Specification to ensure that the materials used meet suitable environmental and sustainability standards. The introduction of energy saving design is of particular importance in the design of the administration and office spaces. At these locations energy efficiency would be

		achieved through the use of high insulation materials, glazing and use of power saving measures such as intelligent lighting systems etc. Sustainable materials will be maximised in the construction of the REC and will include the use of recycled building materials where possible. The use of materials requiring minimum ongoing and future maintenance will be maximised. The Facility has been designed to be volumetrically efficient thereby minimising the amount of structural and cladding materials that would otherwise be used in its construction, as well as the amount of energy which would be required to service any unnecessary building volume that might be created. Site waste management plans would be required from the contractors to demonstrate that waste is being minimised and sustainable practices are being followed during construction. Further information on how the development will address sustainable construction policies is set out in the Energy Statement, which is included in Section 7 of the Planning Application.
CSP3- Sustainable Drainage Systems (SuDS)	- All development will be expected to use Sustainable drainage systems (SuDs). - Only in exceptional circumstances, where it can be demonstrated that all types of SuDs are impractical, will other drainage management systems be permitted.	A surface water management strategy for the development will be required to manage and reduce the flood risk posed by the surface water runoff from the site. Sustainable water management measures should be used to control the surface water runoff from the proposed development site, therefore managing the flood risk to the site and surrounding areas from surface water runoff. An assessment of the surface water runoff rates has been undertaken in order to determine the surface water options and attenuation requirements for the site.

	- Planning applications must include an assessment to show that SuDs will work and be maintained. Measures should be taken to avoid water contamination and safeguard groundwater supply. -Developers will be required to contribute to the maintenance of SuDS.	The rates of runoff have been determined using the current 'industry best practice' guidelines as outlined in the Interim Code of Practice for SuDS[1], and agreed with BMBC. A suitable surface water management scheme to meet standards agreed with BMBC has been designed and is included in Section 8 of the Planning Application. More information on the use of Sustainable Drainage Systems (SuDs) in relation to the consideration of flood risk can be found in Chapter 7 of the ES which accompanies the Planning Application.
CSP 4- Flood Risk	-Not permitting new development where it would be at an unacceptable risk of flooding or would give rise to flooding elsewhere. -Requiring developers with proposals in Flood Zones 2 and 3 to provide evidence of the sequential test and exception rest where appropriate. - Requiring site-specific Flood Risk Assessments (FRAs) for proposals over 1 hectare in Flood Zone 1 and all proposals in Flood Zones 2 and 3. -Expecting proposals over 1000m2 floor space or 0.4 hectares in Flood Zone 1 to	The proposed development is not within a zone that is considered to be at risk of flooding. The majority of the site is within Flood Zone 1. Part of the site, the north west corner, is within Flood Zone 2. The proposed site layout has been designed to minimise the flood risk to the site and surrounding area. The part of the site within Flood Zone 2 is largely free of built form. The Air Cooled Condensers which are in that area are built in silts and therefore are raised above the flood risk area. A surface water management strategy for the development will be required to manage and reduce the flood risk posed by the surface water runoff from the site. An assessment of the surface water runoff rates has been undertaken in order to determine the surface water options and attenuation requirements for the site. The site is almost entirely permeable.

[1] Office of the Deputy Prime Minister, National SuDS Working Group, July 2004, Interim Code of Practice for sustainable drainage systems.

	demonstrate how the proposal will make a positive contribution to reducing or managing flood risk. -Expecting all development proposals on brownfield sites to reduce surface water run-off by at least 30% and development on greenfield sites to maintain or reduce existing run-off rates. -Requiring development proposals to use Sustainable Drainage Systems (SuDs) in accordance with policy CSP3. -Not culverting or building over watercourses and encouraging the removal of existing culverts wherever practicable. -Using flood resilient design in areas of high flood risk.	It is assumed that the majority of rainfall currently infiltrates into the ground or occurs as overland flow at source. This is considered feasible given the soils and geology beneath the site. Based on the proposed site layouts, the site will be approximately 52% impermeable. Current site layout show that the proposed development will increase the impermeable area by approximately 52% when compared to the existing brownfield site. Both surface water and foul flows from the site can be managed such that flood risk to and from the site is not increased following construction. A comprehensive Flood Risk Assessment has been produced in support of this planning application and can be found in Chapter 7 of the ES.
CSP 5- Including Renewable Energy in Developments	- All development (either new build or conversion) of 10 or more dwellings or 100sqm of non- residential floorspace will be expected to incorporate decentralised, renewable or low carbon energy sources and other appropriate design measures sufficient to reduce the developments	The proposed development will provide an energy generation facility with the potential to export 20 megawatts (MW) of electricity, and to provide a direct heat and/or electrical supply to appropriate offtakers in the local area. The proposed REC will utilise the power it generates to run itself, and as such the facility will run on renewable energy.

	carbon dioxide emissions by at least 15% for applications submitted up to 2015, rising to 20% for applications submitted thereafter subject to such measures being practicable and not unacceptably prejudicing the viability of the development. -Where it is not appropriate to incorporate such provisions within the development, an offsite scheme, or contribution to such may be acceptable.	The proposed development contributes towards a diverse and secure mix of energy generation, and in turn contributes to renewable energy development. Cladding materials would be selected with reference to the current BRE's Green Guide to Specification to ensure that the materials used meet suitable environmental and sustainability standards. The introduction of energy saving design is of particular importance in the design of the administration and office spaces. At these locations energy efficiency would be achieved through the use of high insulation materials, glazing and use of power saving measures such as intelligent lighting systems etc. Sustainable materials will be maximised in the construction of the REC and will include the use of recycled building materials where possible. The use of materials requiring minimum ongoing and future maintenance will be maximised. The Facility has been designed to be volumetrically efficient thereby minimising the amount of structural and cladding materials that would otherwise be used in its construction, as well as the amount of energy which would be required to service any unnecessary building volume that might be created. Section 7 of the Planning Application provides more information on how the proposed development fulfils the requirements of this policy.
CSP 6: Development that Produces	-We will allow development that produces renewable energy as long as there is no significantly harmful effect on:	The landscape within the study areas is defined by agriculture, industry or naturalised for nature conservation. The site itself is located on part of the former Houghton Main Colliery, and there is open cast working and other industrial development within the study area.

Renewable Energy	- The character of the landscape and appearance of the area. - Living conditions. - Biodiversity, geodiversity and waste quality - Heritage assets, their settings and cultural features and areas -Highway safety. -Infrastructure including radar. Proposals must be accompanied by information that shows how the local environment will be protected, and that the site will be restored when production ends.	The site itself is Brownfield and has been utilised for industrial operations in the past. Therefore the change of use is not incongruous with the history of the proposal site. It is considered that the principle of the Houghton Main Renewable Energy Centre is in accordance with policies as it is an established technology which will successfully direct waste away from landfill and will generate a renewable source of energy and heat without significant adverse effects on the environment and human health. In terms of highway safety, the facility will share the existing western access off the Houghton Main Colliery Roundabout. This does not pose any highway safety concerns. A number technical assessments have been produced to accompany this planning application, such as a cultural and heritage assessment, a flood risk assessment, an ecology assessment etc. These include details of how the local environment will be protected and how any potential negative impacts will be mitigated. It is considered that appropriate measures will be provided to result in a positive enhancement of biodiversity in the proposed development site. Section 7 of the planning application sets out more information on the contributions made by the proposed development to renewable energy generation and the reduction of carbon dioxide emissions.
CSP 11- Providing Strategic Employment Locations	-We will allocate 350 hectares of land in sustainable locations to go towards meeting the development needs of existing and future industry and business up to 2026. This will provide a choice of sites in places that meet the needs of	The proposed application site will provide a variety of new job opportunities through the introduction of a new energy facility. It is proposed that during construction of the facility there will be approximately 200 FTE construction jobs. The development is also expected to provide 25 full time permanent employment opportunities. These will be at various levels and include

	businesses and their workforce in terms of accessibility and are accessible from communities that would benefit from greater access to job opportunities.	management, administration and plant operators. There will also be a number of jobs created as an 'indirect' effect due to additional expenditure on local goods and services.
CSP 25- New Development and Sustainable Travel	New developments are expected to: -Be located and designed to reduce the need to travel, be accessible to public transport and meet the needs to pedestrians and cyclists. -Provide a transport statement or assessment in line with the thresholds and guidance set out in Department for Transport 'Guidance on Transport Assessments' as published March 2007 (or any subsequent version).	Measures shall be implemented to encourage the use of public transport, including prioritising travel by bus and train. A Transport Statement has been produced as part of the Planning Application and is included within the Environmental Statement. The assessment is in line with the thresholds and guidance set out by the Department for Transport. It is therefore considered that the proposed development is considered to be sustainable in terms of the transport sustainability principles.
CSP 26- New Development and Highway improvement	- New development will be expected to be designed and built to provide safe, secure and convenient access for all road users.	Access to the site is from a spur off an existing roundabout (known as Houghton Main Colliery Roundabout) on the A6195 Park Spring Road. It is proposed that the exiting access will be improved as part of the proposed development and tailored to suit the development proposal.
CSP 29- Design	High quality development will be expected, that respects, takes advantage	The proposed development has been designed considering the nature of the development site.

	of and enhances the distinctive features of Barnsley, including: -Topography, Green Infrastructure assets, landmarks, skylines and gateways. -Views and vistas to key buildings, landmarks, skylines and gateways. -Heritage, townscape and landscape character including scale, layout, building styles and materials of the built form particularly in and around: -Contribute to place making and be a high quality, that contributes to a healthy, safe and sustainable environment; Help to transform the character of physical environments that have become run down and are lacking in distinctiveness.	The Design and Access statement for the proposed development has demonstrated how consideration has been given to the layout of the site and how to minimise the impact of the proposed development on the surrounding area. The Design and Access Statement describes the scale and layout of the proposed development. The Landscape within the study area is defined by agriculture, industry or naturalised areas or nature conservation. The site itself is located on part of the former Houghton Main Colliery. There is a working open cast and other industrial developments within the study area. The proposed development is industrial in nature and the main components of the development will be industrial in appearance. This is in keeping with the character of the site, which is a previously industrial site. The design and layout of the proposals have been designed to make best use of the land available and to fit into the local context and topography. The proposals will generate energy that will be used within the plant and could also be used to heat adjacent or nearby buildings subject to take up.

3.0 Summary and Conclusion

3.1 This Statement supports the planning application to develop the site located off the Houghton Main Colliery Roundabout, Park Spring Road, Houghton Main as a Renewable Energy Centre comprising a 150,000tpa Timber Resource Recovery Centre and Associated Infrastructure.

3.2 The policies set out within the NPPF, the Barnsley, Doncaster and Rotherham Joint Waste Planand the Barnsley Core Strategy place great emphasis on the ongoing commitment to achieving sustainable development.

3.3 It is important, therefore, that the proposed development at Houghton Main contributes to the Joint Waste Plan's sustainability aims as well as meeting national objectives for sustainable development. The table above indicates how the development takes these into account and addresses all dimensions of the sustainable development.

3.4 It is important to note that the proposed development contributes to the Council's sustainability aims as well as meeting national objectives for sustainable development. This sustainability statement demonstrates that the proposals satisfy a number of key objectives, responding to local needs and requirements and conforming to current good practice.

3.5 The proposed development seeks to optimise the use of land through redevelopment of previously developed land, which will contribute to the regeneration aims of the council.

3.6 National policy advocates bioenergy and identifies that the use of sustainable biomass as a transitional fuel to reduce carbon emissions from current energy sources.

3.7 A number of assessments have been undertaken as part of the application to determine the impacts on sensitive receptors. Given the sites industrial character and existing use, a series of monitoring and mitigation measures have been put forward.

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