Energy Statement - Response to Barnsley Core Strategy energy policies

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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www.enzygo.com

Contact Details:

Enzygo Ltd.
The Granary
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA

Tel: 01454 269237
Fax: 01454 269760
Email: lee.searles@enzygo.com
www.enzygo.com

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Location:	Land located off Houghton Main Colliery Roundabout, Park Spring Road, Houghton Main, Barnsley
For:	Peel Environmental Management (UK) Limited and Houghton Main Waste Limited
Status:	Final
Date:	February 2015
Author:	Bethany Kington **Planning Consultant**
Reviewer:	Lee Searles **Planning Director**

Response to Barnsley Core Strategy Energy Policies

1 Introduction and Background

2 Barnsley Metropolitan Borough Council has requested an Energy Report to accompany the application to demonstrate how the proposed REC will address Barnsley Core Strategy Policies CSP2 and CSP5. This short statement sets out how the proposal will address these requirements.

3 Policy CSP2

4 Policy CSP2 sets out Barnsley's policies to promote sustainable construction in new developments. It has three main elements in relation to non-residential developments:

- Development will be expected to demonstrate how it minimises resource and energy consumption, compared to the minimum target under current Building Regulations legislation.
- Proposals for new development will demonstrate how they are 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.

5 The proposed REC will utilise the power it generates to run itself, and as such the facility will run on renewable energy. Therefore in terms of Policy CSP2, the proposed REC will minimise resource and energy consumption.

6 The location of the proposed REC is almost wholly within flood risk zone 1 and as such is considered to be at low risk of flooding. A small amount of development located in the western corner of the site, falling within flood risk zone 2, is of low vulnerability. It is designed to be resilient to flooding and also to maintain capacity within the flood plain through being raised above the ground. Sustainable design features of the proposed development include rainwater harvesting facilities and a comprehensive sustainable urban drainage scheme to manage surface water.

7 With regard to building energy efficiency, a key requirement of the management of energy facilities is to dissipate excess heat created from the generation process. The design approach has therefore sought to incorporate key operational requirements into building design.

8 The Design and Access Statement accompanying this application describes the sustainable design components of the scheme. The design of the office and welfare accommodation areas will 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.

9 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.

10 Materials with high recycled content have been sourced that are highly durable and have a long life expectancy. In terms of the cladding materials, at the end of their lifespan the high glass, steel and aluminium content means they can be continually recycled. It is these qualities that enable them to achieve an A and A+ rating in the British Research Establishment's (BRE) Green Guide to material specification. This, in turn, assists the HOPSEF as a whole in achieving a BREEAM (British Research Establishments Environmental Assessment Method) rating of 'Very Good'. The materials chosen would be decided in appraisal of the balance of life span, ease of maintenance, environmental impact through embodied carbon content and their renewable sources of production.

11 Policy CSP5

12 Policy CSP5 sets out Barnsley Council's approach to securing renewable energy in new developments.

- All developments containing more than 1000 square metres 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 development's carbon dioxide emissions by at least 15% for applications submitted up to 2015.
- Where it is not appropriate to incorporate such provisions within the development, an off-site scheme, or contribution to such may be acceptable.

13 The proposed REC is a renewable energy generation development. The TRRC will process waste materials to export 20 megawatts of power which will be available for local users. In combination, the energy generated by this development, in tandem with its ability to utilise heat and power to meet its own needs, means that the requirements of this policy will be fully met on-site. In addition, the development will have the potential to deliver heat and power off-site to local users.

14 Conclusion

15 The proposed REC will directly provide renewable energy to the national grid, and has the potential to provide heat and electricity to nearby businesses. As a result it will make a direct contribution to the lowering of carbon dioxide emissions. The design of the development will incorporate sustainable design and construction to adapt to the effects of climate change and achieve relevant building regulations requirements. Appropriate non-process elements of the scheme will achieve very good BREEAM standards. The proposed REC fully meets the requirements of Barnsley Core Strategy Policies CSP2 and CSP5.