

**Environment and Sustainable
Communities Overview and Scrutiny
Committee**

30 April 2019

Sustainable Heating



Joint report of Lorraine O'Donnell, Director of Transformation and Partnership and Ian Thompson, Corporate Director of Regeneration and Local Services

Electoral division(s) affected:

Countywide

Purpose of the Report

1. The purpose of this report is to provide members of the committee with background information prior to a presentation by Professor Jon Gluyas, Dean of Knowledge Exchange, Dong/Ikon Chair of Geoenergy Carbon Capture and Storage, Department of Earth Sciences, Durham University focusing on sustainable heating.

Executive summary

2. Professor Jon Gluyas attended the special meeting of the Environment and Sustainable Communities Overview and Scrutiny Committee in November 2014 and gave a presentation focusing on Underground Coal Gasification (UCG). Members present at that meeting invited Professor Gluyas back to committee on the 6 October 2015 to provide a further presentation on low carbon energy.
3. Members will recall that when agreeing the work programme for 2018/19 it was highlighted that Professor Gluyas would be invited to a future meeting of the committee to deliver a presentation on sustainable heating. Arrangements have been made for Professor Jon Gluyas to attend the Environment and Sustainable Communities Overview and Scrutiny Committee on the 30 April 2019 to deliver a presentation focusing on:
 - The important historic role played by County Durham in global energy production

- The challenges facing County Durham in meeting carbon reduction targets
- The opportunities for County Durham to develop innovative, sustainable heat solutions that will meet our targets and create economic growth

A copy of the presentation slides are attached as appendix 2.

Recommendations

4. The Environment and Sustainable Communities Overview and Scrutiny Committee is asked to note and comment on the content of the report and presentation.

Background

5. Between 1877 and 1956 County Durham's miners played a crucial role in fuelling economic growth, producing 30 million tonnes of coal a year.
6. Now, the County has challenging carbon reduction targets to meet. The Council has declared a climate emergency and aims to reduce carbon emissions from its own activities by at least 60% by 2030, whilst working towards a reduction of at least 80% across the whole county by 2050.
7. Energy from water, wind and solar will have a big part to play but, while carbon emissions from electricity have decreased significantly, 77% of UK heat is still produced from fossil fuels so that decarbonising heat will be essential.
8. County Durham's geology and its mining heritage now offer a new and innovative opportunity to generate sustainable heat from underground. The county's abandoned, flooded mines present a significant heat legacy, while deep geothermal heat can be extracted from the county's sedimentary basins.
9. Mine water heat is largely located in the same places where heat demand now exists and the opportunity is so great that geothermal heat could supply the UK almost indefinitely.
10. County Durham now has a unique opportunity to lead on the development of geothermal heat, to boost economic development and make significant strides towards meeting carbon reduction targets.

Conclusion

11. Members of the Environment and Sustainable Communities Overview and Scrutiny Committee will be aware of the role that County Durham has played in global energy production, the challenges facing the county

in meeting the carbon reduction targets and opportunities for County Durham to develop innovative heating solutions that will meet current and future targets.

Background papers

- The Climate Emergency motion that was passed on 20th February 2019 is attached as Appendix 3

Other useful documents

- None

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Appendix 1: Implications

Legal Implications

Not applicable

Finance

Not applicable

Consultation

Not applicable

Equality and Diversity / Public Sector Equality Duty

Not applicable

Human Rights

Not applicable

Crime and Disorder

Not applicable

Staffing

Not applicable

Accommodation

Not applicable

Risk

Not applicable

Procurement

Not applicable