
Report to Enterprise and Environment Committee

Date of Meeting: 6 November 2014

**Subject: District Heating Feasibility Study: Owens-Illinois Glassworks,
Alloa and surrounding area of Alloa**

Report by: Head of Development & Environment

1.0 Purpose

- 1.1. The purpose of this report is to advise the Committee that a study is being carried out to look at the feasibility of recovering waste heat from the Owens-Illinois glassworks in Alloa into a local district heating scheme.

2.0 Recommendations

- 2.1. It is recommended that Committee notes that a feasibility study into the capture of heat generated by the Owens-Illinois glassworks into a district heating system is being conducted on behalf of the Scottish Government, and the Council is actively participating in, and supporting, the study.

3.0 Considerations

- 3.1. The Scottish Government has a target to reduce Scotland's greenhouse gas emissions by 42% by 2020, and by 80% by 2050. Under the Climate Change (Scotland) Act, Clackmannanshire Council has a duty to contribute to meeting these targets.
- 3.2. To assist with meeting the targets, and in recognition of the fact that heat is estimated to account for over half of all the energy consumed in Scotland, the Scottish Government produced a draft Heat Generation Policy Statement (HGPS) for Scotland.
- 3.3. The draft HGPS sets out measures to reduce the need for heat; to supply heat efficiently at least cost to consumers; and to use renewable and low-carbon resources to produce heat. One of the proposed measures is district heating, the supply of heat by hot water to a number of buildings through a heat network of underground pipes. The Scottish Government's ambition is for 40,000 homes to be connected to district heating by 2020.
- 3.4. The Scottish Government, through Resource Efficient Scotland, is funding consultants to carry out a study into the feasibility of heat recovery from the Owens-Illinois glassworks in Alloa. The study considers the amount of heat

produced by the furnaces; the opportunities to capture the heat and transmit it through a district heating network; and the potential users of the heat in the area around the glassworks. The glassworks had the 16th highest direct emissions of carbon dioxide in Scotland in 2012, suggesting that it is a significant user of energy.

- 3.5. Clackmannanshire Council has participated in this study, supplying information on energy demand for a number of its buildings in the vicinity of the glassworks, including Kilncraigs, Alloa Academy, Park Primary, Park Nursery, Alloa Family Centre and the Bowmar Centre. Other potential users of heat include existing and planned housing and businesses.
- 3.6. If the study shows that there is potential for a district heating system, then the Council would have the potential to save on its fuel bills and reduce its greenhouse gas emissions through more efficient use of energy: heat is typically sold at lower cost than gas or electricity (typically 5%-20% lower). Extending a district heat network to social housing would have the potential to help alleviate fuel poverty by reducing household energy bills, while extending it to business sites and providing lower-cost heat could help attract new business investment to the area. If a district heating system was taken forward, it could have the potential to generate revenue for the Council through the sale of heat.
- 3.7. The findings of the study are due to be published in November 2014, and the outcome will be considered, along with proposals for taking any recommendations in the study forward.
- 3.8. If the study shows that there is potential for a heat network in Clackmannanshire, then there will be the opportunity to apply for EU funding under the Horizon 2020 grant scheme. This includes stream EE18 (New technologies for the utilization of heat recovery in large industrial systems) and EE14 (Removing market barriers to the uptake of efficient heating and cooling solutions). These schemes each have €3-4million (approximately £3million) each available for up to 100% of project costs.
- 3.9. The Scottish Government, through Resource Efficient Scotland, has indicated that it would strongly support the Council applying for such a grant as the lead partner in a district heating project, and would provide assistance in making the application. This is one of only two industrial heat to district heating projects currently being looked at by the Scottish Government.
- 3.10. Funding of up to £400,000 would also be available from the Scottish Government's District Heating Loan Fund, to support capital infrastructure to establish a district heating system. The District Heating loan Fund has a total of £8million available.
- 3.11. There is scope for the Council to take the lead role in developing a district heating network and setting up an Energy Service Company (ESCO). The EU funding described above can be used to cover capital costs, and there is scope for income generation from the sale of energy to others. A similar project in Dundee (using excess heat from a tyre factory) is expected to have a short payback period.

4.0 Sustainability Implications

- 4.1. There are no direct sustainability implications arising from this report; however, the construction of a district heating network in Alloa would significantly contribute to reducing the council and the area's greenhouse gas emissions, could support the wider cost efficiency of the Alloa Glassworks and could contribute to reducing the number of people in fuel poverty.

5.0 Resource Implications

5.1. Financial Details

- 5.2. The full financial implications of the recommendations are set out in the report. This includes a reference to full life cycle costs where appropriate. Yes ☒

- 5.3. Finance have been consulted and have agreed the financial implications as set out in the report. Yes ☐

5.4. Staffing

- 5.5. There are no staffing implications arising from this report at this stage.

6.0 Exempt Reports

- 6.1. Is this report exempt? Yes ☐ (please detail the reasons for exemption below) No ☒

7.0 Declarations

The recommendations contained within this report support or implement our Corporate Priorities and Council Policies.

- (1) **Our Priorities** (Please double click on the check box ☒)

- | | |
|--|-------------------------------------|
| The area has a positive image and attracts people and businesses | <input checked="" type="checkbox"/> |
| Our communities are more cohesive and inclusive | <input type="checkbox"/> |
| People are better skilled, trained and ready for learning and employment | <input type="checkbox"/> |
| Our communities are safer | <input type="checkbox"/> |
| Vulnerable people and families are supported | <input checked="" type="checkbox"/> |
| Substance misuse and its effects are reduced | <input type="checkbox"/> |
| Health is improving and health inequalities are reducing | <input checked="" type="checkbox"/> |
| The environment is protected and enhanced for all | <input checked="" type="checkbox"/> |
| The Council is effective, efficient and recognised for excellence | <input checked="" type="checkbox"/> |

- (2) **Council Policies** (Please detail)

8.0 Equalities Impact

8.1 Have you undertaken the required equalities impact assessment to ensure that no groups are adversely affected by the recommendations?

Yes ☐ No ☒

9.0 Legality

9.1 It has been confirmed that in adopting the recommendations contained in this report, the Council is acting within its legal powers. Yes ☐

10.0 Appendices

10.1 Please list any appendices attached to this report. If there are no appendices, please state "none".

None

11.0 Background Papers

11.1 Have you used other documents to compile your report? (All documents must be kept available by the author for public inspection for four years from the date of meeting at which the report is considered)

Yes ☐ (please list the documents below) No ☒

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Approved by

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