



Aberdeen Heat and Power

Aberdeen Heat and Power (AHP) operate and develops a district heating scheme in Aberdeen, using combined heat and power technology. High temperature heat is used to drive gas engines, which produce electricity. The resulting low temperature waste heat from the engine is used to produce hot water that is piped to properties on the network, providing heating and hot water to customers.

The VIBES Environmental Product or Service Award recognises businesses that have developed, or are developing, a product or service that brings environmental and business benefits. The category is aimed at businesses that can demonstrate how products and services can promote sustainable consumption, reduce environmental impacts and create new business opportunities.

Winners of the VIBES Environmental Product or Service Award 2015

Sponsored by Scottish Power

Highlights

Tackling fuel poverty within Aberdeen City using Combined Heat and Power for hard to treat properties.

Innovative approach to develop an extensive network, run on a not-for-profit basis

Gas systems 80% efficient in terms of percentage of power received from the grid

The technology saves between 3 and 6 tonnes of carbon per property per annum.

Over 2000 properties and 15 public buildings connected to the CHP system

Aspiration to form a ring of power with energy centres positioned around Aberdeen City to enable as many domestic and non-domestic properties to join the scheme

Aberdeen Heat & Power was set up with the specific aims of alleviating fuel poverty and reducing the carbon footprint in hard to treat properties through installation of efficient heating systems. The aim was to replace the original costly and inefficient electrically heated systems, with affordable and controllable systems. In the multi-storey blocks this has been achieved through installation of a range of piping to all flats.

The company have used an innovative approach, taking an existing technology and optimising and adapting it to use in a new way for Scotland. Whilst they are using gas to power the system, they are running the gas engines for optimum efficiency and reduced NOx emissions.

The technology saves between 3 and 6 tonnes of carbon per property per annum, With over 2000 properties now connected to the network this is reducing the carbon footprint significantly.

Alternative fuel technologies are also under investigation to offset the use of fossil fuel in the medium and long term, including potential link to the proposed energy from waste plant for the city.

A subsidiary company has been set up, District Energy Aberdeen Ltd (DEAL) which enables further commercial businesses to be connected to the network, with profits going solely to AHP and allowing for investment in expansion and maintenance of existing infrastructure.

AHP negotiate their gas contracts and set their customers prices well in advance. The fixed rate is set so that no-one is living in fuel poverty, ensuring that it is at the lowest level possible for people on benefits or a state pension. The power generated from the CHP system is sold to the grid, with the contract price for power also negotiated in advance.

The judges recognised that the business model used by AHP is an exemplar model in district heating due to it's not for profit nature and the associated social benefits, such as reduction of fuel poverty and the associated health benefits from reheating damp, inefficient properties. The links with Aberdeen Affordable Warmth is commendable and ensures that it is not only those who can afford to pay who are connected to the network.

The potential for this to be adopted in other Council areas was recognised.



Image: Underground mains Seaton

Ian Booth, general manager at Aberdeen Heat & Power Ltd, said: "Aberdeen Heat & Power Ltd. is delighted to be able to win this prestigious VIBES Award. The company was formed in 2002 to deliver affordable heat to alleviate fuel poverty, through a district heating model particularly for hi-rise social housing blocks, and this mantra is still very valid today.

"The various District Heating systems we operate in Aberdeen now supply heat to over 2000 homes and 15 public buildings from efficient, low carbon Combined Heat & Power energy centres. We have the long term ambition to grow the district heat networks around the city and are justly proud to be able to win such a valued award to further the aims of the company"