



Conference & Expo 2017

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Bioenergy Insight conference to look at the decarbonisation of gas networks

The role of bio-synthetic natural gas (SNG) in decarbonising transport and gas networks will be a key theme at Bioenergy Insight 2017, the leading bioenergy conference and expo, taking place from 4-5th October at the Sheraton Hotel, Edinburgh.

Bio-SNG is formed during the conversion of thermally-derived synthetic gas into methane. Unlike biomethane produced by anaerobic digestion (AD), feedstocks can include more durable material such as woody biomass and wastes that are not broken down in traditional anaerobic digester plants. Although anaerobic digestion of organic material has been widely accepted as an important renewable energy technology, the production of Bio-SNG is required to move to higher levels of fossil fuel replacement.

This year's conference looks at the prospects for large-scale supply of renewable gas. It will also examine biomethane as a commercial and sustainable fuel for buses and trucks.

Further up the supply chain, the conference examines current trends in the global wood pellet market, sustainability, and financing the bioenergy sector.

The event will bring together biogas producers, pellet production plants, gas vehicle manufacturers, utilities and biopower, government bodies, academics and AD operators under one roof.

David Pickering, project manager, BioSNG, Cadent Gas (formerly known as National Grid Gas Distribution), said: "There are a number of ways of greening the gas grid. Biomethane from AD plants is already being injected into the gas grid at around 80 locations around the country. However, the type of feedstocks for AD will always be relatively limited in quantity, unless we are prepared to grow large amounts of energy crops (which is not government policy). As you probably know, the types of feedstocks for AD are typically food waste, agricultural waste, sewage and crops.

"Gasification of black bag waste and wood waste to BioSNG offers a much larger opportunity, as there is so much waste that cannot economically be recycled. We export 3 – 4 million tonnes of refuse derived fuel (RDF) to the continent for incineration, and landfill many more millions of tonnes of waste. We believe that taken together, biomethane from AD



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and BioSNG (chemically identical to biomethane) could provide up to around 100 TWh/a of green gas, or about one-third of current domestic demand.

“The other main opportunity for greening the gas networks is to use hydrogen, either blended with natural gas, or by converting some or all of the networks to pure hydrogen. Cadent is undertaking trials of hydrogen blending on a private gas network at Keele University. We have also put forward a proposal to investigate providing pure hydrogen to industrial customers in the North West, and blending hydrogen into the gas stream for domestic customers (a feasibility study at this stage). And obviously there is the Northern Gas Networks “H21” study, which looked at the feasibility of converting a whole city (Leeds) to hydrogen.”

Pickering will be speaking on Day Two of the Bioenergy Insight conference at 2.45pm on ‘The future of gas from a UK perspective’.