





## 22 February 2012

# National Grid, Advanced Plasma Power and Progressive Energy announce new project to transform waste into Bio Substitute Natural Gas

Project will deliver an end-to-end process for converting waste to Bio-SNG, using Gasplasma® technology

The first project that demonstrates the use of waste to produce bio-substitute natural gas (Bio-SNG) has today been announced by National Grid, Advanced Plasma Power and Progressive Energy.

The project, which uses waste as a feedstock to produce Bio-SNG, will be based at the Advanced Plasma Power Gasplasma® facility in Swindon, UK. It will demonstrate the technical feasibility and commercial viability of the waste to Bio-SNG process. The three partners will work together to design, install and test the operation of a demonstration plant.

The plant will take the waste-derived and energy rich synthesis gas from the existing Gasplasma® process, and convert it to meet the specification for injecting it into the gas network. Bio-SNG could play a crucial role in the decarbonisation of heating and help reach the UK's binding carbon reduction targets. As part of its work on future energy scenarios, National Grid has forecast that renewable gas could be a vital part of the energy mix in the coming decades.

Marcus Stewart, Future Distribution Networks Manager, National Grid said, "This project is a great opportunity to look at the potential of Bio-SNG from both a technical and commercial perspective. The project underlines our commitment to seeking economic and innovative ways to decarbonise energy, while making the best use of the existing network."

It is estimated that renewable gas, of which Bio-SNG may be a major source, could account for as much as one fifth of the UK's heat requirement by 2050.

Rolf Stein, Chief Executive, Advanced Plasma Power said, "The development and implementation of a process to derive Bio-SNG from waste using our unique Gasplasma® process has significant global implications for sustainable waste management and low carbon energy solutions. We look forward to demonstrating the process on our plant in Swindon."

Phillip Cozens, Progressive Energy said, ""This project is a significant step towards greater resource efficiency in our economy, exploiting the capacity of the existing gas infrastructure and demonstrating the potential to deliver renewable heat at a cost that is competitive with other renewable heat options. The partnership has put together a strong project execution team to deliver a practical demonstration of Bio-SNG production from residual wastes. Successful demonstration would provide a blue-print for general deployment."

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Advanced Plasma Power is exhibiting at Energy from Waste conference, 22-23 February 2012 at the Cavendish Conference Centre, London W1.

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#### **Notes to editors:**

#### **National Grid:**

National Grid (LSE: NG; NYSE:NGG) is an electricity and gas company that connects consumers to energy sources through its networks. The company is at the heart of one of the greatest challenges facing our society - to create new, sustainable energy solutions for the future and developing an energy system that underpins economic prosperity in the 21st century. National Grid holds a vital position at the centre of the energy system and we 'join everything up'. In Britain, we run the gas and electricity systems that our society is built on, delivering gas and electricity across the country. In the North Eastern US, we connect more than seven million gas and electric customers to vital energy sources, essential for our modern lifestyles. More information at <a href="https://www.nationalgrid.com">www.nationalgrid.com</a>

#### National Grid in the UK:

- We own the high-voltage electricity transmission network in England and Wales, operating it across Great Britain
- We own and operates the high pressure gas transmission system in Britain
- Our gas distribution business delivers gas to 11 million homes and businesses
- We also own a number of related businesses including LNG importation, land remediation and metering
- National Grid manages the National Gas Emergency Service free phone line on behalf of the industry -0800 111 999 (all calls are recorded and may be monitored)

#### **Advanced Plasma Power:**

Advanced Plasma Power Limited (APP) is a leading technology provider for advanced waste to energy plants, showcasing its globally patented Gasplasma® technology. After the removal of valuable recyclates, the Gasplasma® process treats a wide range of feedstocks including residual municipal solid waste and commercial/industrial waste converting it all into two high value outputs: a clean, high quality, energy rich synthesis gas (syngas) and a solid, vitrified product each with multiple applications. The syngas can be used to generate electricity directly in gas engines, gas turbines and fuel cells or it can be converted to Bio-SNG or liquid fuels. The solid product, Plasmarok®, has a variety of valuable end uses, for instance, as a building material. The process is clean, modular and scalable, delivering high efficiency and maximising landfill diversion whilst minimising visual and environmental impact. More information at www.advancedplasmapower.com

## **Progressive Energy:**

Progressive Energy is a market leading project development company, specialising in clean energy and carbon abatement in the energy sector through the deployment of carbon capture and storage and renewable energy technologies. More information at <a href="http://www.progressive-energy.com">http://www.progressive-energy.com</a>