Government grant awarded to fuel UK towards sustainable future

Advanced Plasma Power Press Release

07 Sep 2015

A consortium of UK companies led by advanced waste to energy and fuels company, Advanced Plasma Power (APP), has today been awarded £11m in government funding to develop and build the first-ever plant of its kind which will turn waste from local homes and businesses into a sustainable fuel to power heavy goods vehicles.

The grant has been awarded to APP and its partners National Grid, clean energy firm Progressive Energy, and CNG Services, a company which provides gas for use in vehicles, as part of a Department for Transport (DfT) programme to develop and commercialise the technologies required to decarbonise the transport sector.

The new APP plant in Swindon will be the first of its kind in the world and take residual waste – the UK's largest sustainable source of biomass – and convert it into compressed biomethane, using APP's pioneering Gasplasma® technology and will produce enough fuel for 75 heavy goods vehicles, equivalent to all of the buses operating in Swindon.

Biomethane can be used interchangeably with natural gas in heavy goods vehicles and is significantly less carbon-intensive and less polluting than diesel. It has the potential to cut transport carbon emissions by up to 96 per cent.

Construction of the plant will begin in 2016 and the consortium has already found local customers for the product and suppliers for the feedstock. The post-recycling residual waste will be provided by a local source, and the gas produced will be used by local haulage company, Howard Tenens, and consortium partner CNG Services.

The use of gas as a transport fuel is growing. John Lewis already uses it for some heavy goods vehicles, whilst some bus services operated in Reading and Sunderland also run on the fuel.

The consortium has been working together over the last five years on a project to produce a renewable natural gas made from waste that can be pumped into the UK's gas pipeline network which provides an excellent means of distributing the fuel to where it is needed.

Transport Minister Andrew Jones announced news of the grant as part of £25 million awarded to winners of the Government's Advanced Biofuels Demonstration Competition.

Rolf Stein, CEO of Advanced Plasma Power, said:

“APP is delighted to have been selected in this competition by the DfT. It recognises our position at the very forefront of environmental and technical innovation in the UK. The grant also highlights the important role our technology can play in producing clean biofuels from waste on a local basis, so as to help reduce the greenhouse gas emissions from both the waste management as well as transport sectors without the requirement to give over large swathes of land to growing energy crops. From an economic, environmental and social perspective it presents a real triple win.

“Our state-of-the-art process can unlock the enormous value of residual waste as a resource and provides a cost-effective means of converting such waste to fuels such as bio-methane. Our expectation is that this plant will lead the way to a new generation of ultimate recycling facilities both in the UK and around the world.”

Transport minister Andrew Jones said:

“This is a great example of our commitment to innovative transport technology and supporting jobs and growth.

“Biofuels have an important role to play in keeping Britain moving forward in a sustainable and environmentally-friendly way. This £25 million is not only a vital investment in technology that will help secure a greener future but will also support the creation of thousands of jobs.

“Advanced biofuels have the potential to save at least 60% of the greenhouse gas emissions from the equivalent fossil fuel. Swindon’s successful bid shows how the government is investing in transport and making better, clean journeys.”

David Parkin Director of Network Strategy at National Grid, said:

“National Grid provides a gas network across much of the country and is proud to be part of this pioneering Department for Transport (DfT) programme to decarbonise transport.

“We believe that the use of renewable gas as a fuel in the transport sector will play a significant role in reducing greenhouse gas emissions in the future. The benefits of using household waste to create fuel for HGVs and busses is clear; lower emissions, quieter engine noise and favourable fuel prices.

“Green gas generation has been a technology that has seen particularly rapid growth in the last few years and this pioneering project is just one of the innovative renewable energy projects National Grid is involved with, working alongside a number of technical partners across the UK.”

Chris Manson-Whitton, Director of Progressive Energy, said:

“We are tremendously excited about this true waste-to-wheels project which exemplifies the circular economy. The award by the DfT is testament to the vision and dedication of the consortium. It is a springboard to exploiting our indigenous residual waste resource to provide a secure and low cost transport fuel for our truck and bus fleets.”

John Baldwin, Managing Director of CNG Services, said:

"A high proportion of waste is not suitable for anaerobic digestion, the APP gasification pathway means that this waste will be able to be used as a vehicle fuel, with sufficient resource for all UK trucks to move from diesel to Bio-CNG. As such, this project is hugely significant in the journey to decarbonise transport by 2050."

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Notes for editors

Notes to Editors:

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National Grid in the UK:

- We own and operate the electricity transmission network in England and Wales, with day-to-day responsibility for balancing supply and demand. We also operate, but do not own, the Scottish networks. Our networks comprise approximately 7,200 kilometres (4,474 miles) of overhead line, 1,500 kilometres (932 miles) of underground cable and 342 substations.
- We own and operate the gas National Transmission System in Great Britain, with day-to-day responsibility for balancing supply and demand. Our network comprises approximately 7,660 kilometres (4,760 miles) of high-pressure pipe and 618 above-ground installations.
- As Great Britain's System Operator (SO) we make sure gas and electricity is transported safely and efficiently from where it is produced to where it is consumed. From April 2019, Electricity System Operator (ESO) is a new standalone business within National Grid, legally separate from all other parts of the National Grid Group. This will provide the right environment to deliver a balanced and impartial ESO that can realise real benefits for consumers as we transition to a more decentralised, decarbonised electricity system.

- Other UK activities mainly relate to businesses operating in competitive markets outside of our core regulated businesses; including interconnectors, gas metering activities and a liquefied natural gas (LNG) importation terminal – all of which are now part of National Grid Ventures. National Grid Property is responsible for the management, clean-up and disposal of surplus sites in the UK. Most of these are former gas works.

Find out more about the energy challenge and how National Grid is helping find solutions to some of the challenges we face at https://www.nationalgrid.com/group/news

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