

## **Public Accounts Committee: Inquiry into Waste Management**

### **Additional information from Natural Resources Wales: Distributed Modular Gasification technology.**

During the evidence session with Natural Resources Wales on 4 November they agreed to send some additional information on Distributed Modular Gasification technology.

NRW understand that Distributed Modular Gasification (DMG) is an emerging technology for the treatment of waste. It operates in a similar way to a traditional gasification plant. Gasification is an Advanced Thermal Treatment technology that is characterised by the partial oxidation of the feed stock. Oxygen is added, but not in sufficient quantities to allow the substance to be completely oxidised and full combustion to occur. The partial combustion results in the production of 'Syngas' which can be used to substitute natural gas, chemicals, fertilisers, transportation fuels and hydrogen. The gas in the DMG technology is then subjected to further treatment to extract hydrogen for commercial purposes.

Under the Environment Permitting Regulations; certain activities are regulated by Natural Resources Wales for example, Part A(1) installations and Part A(2) installations and Part B activities are regulated by the relevant local authority. The information currently available for this technology does not contain sufficient detail to identify who is the most appropriate regulatory authority.

NRW do not offer an opinion on one type of plant over another. The recently published Waste Incineration and Energy from Waste Best Available Techniques Reference Document sets out minimum standards operators must adhere to. This guidance applies to gasification plants and other emerging technologies, as well as traditional incineration processes. If an application for an Environmental Permit that we are responsible for regulating is received, we would assess technology against the standards set out in the relevant guidance as part of our determination process, in line with the Environmental Permitting Regulations. We will continue to work with local authorities to share technical understanding and ensure an appropriate level of regulation is applied.

The introduction of restrictions on certain types of separately collected materials going to Energy from Waste facilities, such as proposed in the Wales Environment Bill may impact on the viability of this kind of technology. As highlighted in our evidence to the Public Accounts Committee whilst recycling and recovery of

unavoidable waste generated is important, preventing and reusing waste is the most sustainable option. Energy from waste initiatives can form part of an integrated network of waste installations for disposal of residual waste and the recovered energy can make a useful contribution to our energy needs, however they should not be viewed as a substitute for the prevention or minimisation of waste.

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