A SOLUTION FOR THE ENVIRONMENT

About us

Reducing greenhouse gas emissions

Malaby Biogas has been established to develop the commercial application of anaerobic digestion for the production of methane rich biogas. The chemical process of anaerobic digestion has been understood for centuries and the breakdown of organic matter into methane, carbon dioxide and a nutrient rich substrate was used by the Victorians to convert sewage into gas to power street lights. Malaby Biogas will provide a waste disposal solution and an energy generation solution in one clean process.

A tidy solution

Reducing our dependence on landfills

Driven by climate change and the growing cost of waste disposal, Malaby Biogas's mission is to use anaerobic digestion to provide a practical solution to the twin issues of waste and power.

Waste reduction Legislative restrictions on waste disposal, annual increases in Landfill Tax and rising transportation costs have meant that removal and disposal of waste is becoming a growing burden in all areas of society. Diverting non woody organic waste from the waste stream will reduce our dependence on landfills and reduce the cost of waste disposal for companies and organisations that are under Duty of Care guidelines to dispose of their waste responsibly. Malaby Biogas is able to take a wide range of source separated organic waste at a significantly reduced cost over traditional waste disposal methods.

Renewable energy generation Using the anaerobic digestion process in controlled conditions Malaby Biogas is able to generate renewable energy in three forms: gas, electricity and heat. By controlling the process methane (a greenhouse gas 22 times more damaging than carbon dioxide) can be captured and used for power without being released into the atmosphere. Thus the process is carbon neutral.

Reduced fossil fuel consumption By reducing transportation of waste, decreasing embedded losses in power supplies and cutting greenhouse gas emissions Malaby Biogas can significantly cut the consumption of fossil fuels. In addition, the waste (digestate) at the end of the anaerobic digestion process is a highly concentrated source of organic fertiliser which can be spread on farm crops to increase production. This clean fertiliser helps reduce a farm's consumption of fossil fuel based fertilisers and has an additional soil conditioning component to further aid agricultural production.

A local solution

Generating renewable local energy

By looking at the problems from the ground up Malaby Biogas has found that the most energy efficient (and cost effective) way of addressing the waste and power issues is to develop a system that brings the solution to the problem. Transportation has become a large contributor to energy and financial expenditure and so any solution that can minimise transportation will provide savings. In order to do this the system will need to be able to adapt to the local surroundings. The waste needs, power requirements, geographical demands and planning regulations vary with locality and it is with this demand for flexibility that Malaby Biogas intends to take the solution to the location. This means that each site will have very different requirements and will need very different equipment. However the central tenet is always to apply the solution to the environment. Anaerobic digestion is a very flexible process and is ideally suited to being adapted to most sites.