Commercial food waste recycling is on the increase in the UK, thanks to a successful partnership between recycling and waste management company Cawleys and anaerobic digestion (AD experts, BiogenGreenfinch).
The two companies, which are based in Bedfordshire, went into partnership in 2007 when Cawleys began collecting commercial food waste from local businesses and delivering it to BiogenGreenfinch’s Twinwoods AD plant in Milton Ernest.

Although nearly a quarter of local authorities now offer combined or separate food waste recycling collection services to householders in the UK, businesses have to organise their own waste collection and disposal, and still tend to rely heavily on landfill. However, as landfill charges increase and more companies seek to enhance their ‘green’ credentials, many are becoming increasingly aware of alternative methods of dealing with food waste.

The Cawleys collection service is expanding across the East Midlands and into London, and the company has just added a third vehicle to its fleet. It is now looking to expand its services to other parts of the UK in tandem with BiogenGreenfinch’s planned new AD plants, the first of which will open shortly in Northamptonshire.
The commercial collection service is used by restaurants, including Smiths of Smithfields, London; hotels, including Luton Hoo, which is part of the Elite Group; and commercial caterers. The service is also being used by Waitrose. Cawleys currently collect food waste from 50 Waitrose stores and this will increase by a further 60, to over 110 stores by the end of 2010.

Each business collects its food waste in biodegradable corn starch bags, which are placed in 360ltr bins. Collections, which can be made seven days a week, are tailored to individual customer needs. They can vary from a one bin per day collection, if space is limited, to multi-bin weekly collections.

Cawleys empties about 150 bins per day, Monday to Saturday, using its three vehicles, and about 50 bins on Sundays, using one vehicle. In total, this equates to about 70 tonnes of waste delivered to the AD plant per week.
Its collection vehicles are run on fuel containing locally sourced bio-fuel made from used cooking oil. Using Cawleys’ bespoke vehicles gives companies the benefit of a hygienic and efficient food waste collection service. The vehicles are divided into two compartments which means they can take loose waste, such as plate scrapings, and packaged waste, such as damaged stock from supermarkets. The loose material is fed straight into the AD plant and the other material goes through a de-packaging machine. The packaging is then shredded and sent to Cawleys’ Materials Recovery Facility (MRF) in Luton, Bedfordshire, which recycles card, paper, plastic, scrap metal and wood.

Cawleys is a family run business, which was set up in 1947. It offers a variety of services, including bulk food waste collections for large quantities of food from manufacturers such as Hain Celestial, which produces sandwiches for high street stores, and companies such as Alpro UK, which produces soya milk.

BiogenGreenfinch’s 30,000 tonne-capacity AD plant, is the first successful, commercial-scale food waste plant in the UK to use the resultant bio-fertiliser back on its own land. The digestate is applied twice a year and has a number of advantages over slurry. For example, as a result of the AD process, nitrogen occurs in a more readily available form and the product also has a lower viscosity than slurry making it easier to spread. BiogenGreenfinch has worked closely with WRAP on the development of the new PAS110 standard for quality digestate and the associated Quality
Protocol. When these documents are finalised, the company will aim to be amongst the first to achieve certification for the digestate and will be able to use it as a product rather than a waste.

The heat and biogas generated from the AD process can be used to run the plant or converted into 1.2 MW/hr of renewable electricity. Ninety per cent of this is supplied to the National Grid where it can power more than 1200 homes. BiogenGreenfinch also receives double Renewable Obligation Certificates (ROCs) – digital certificates, which prove how much energy was generated and by whom, and work as a bonus premium on top of the price paid for the unit.

Kate Cawley, Business Development Manager of Cawleys, said: “The face of commercial recycling is changing in line with rising landfill costs, new legislation and a growing desire among many organisations to enhance their ‘green’ credentials."
“By teaming up with BiogenGreenfinch, we are offering a much-needed one-stop solution that is cost-effective, local and flexible. Furthermore, customers can rest assured that their food waste is being put to good use to provide a valuable source of renewable energy and a high quality bio-fertiliser.”

John Ibbett, Chairman of BiogenGreenfinch, said: “Most of the UK’s food waste currently goes to landfill, but this situation is changing in both the private and commercial sectors, where regular collections are expected to become the norm in the future.

“We look forward to growing the commercial food waste element of our AD business alongside Cawleys as we continue to expand our operations across the UK.”

WRAP actively supports the development of AD and in-vessel composting (IVC) plants for processing source separated biodegradable commercial and municipal waste. In addition to providing advice, it can offer capital funding and has recently launched an online guide to other sources of funding in this area. For details, log on to www.wrap.org.uk/composting.
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