



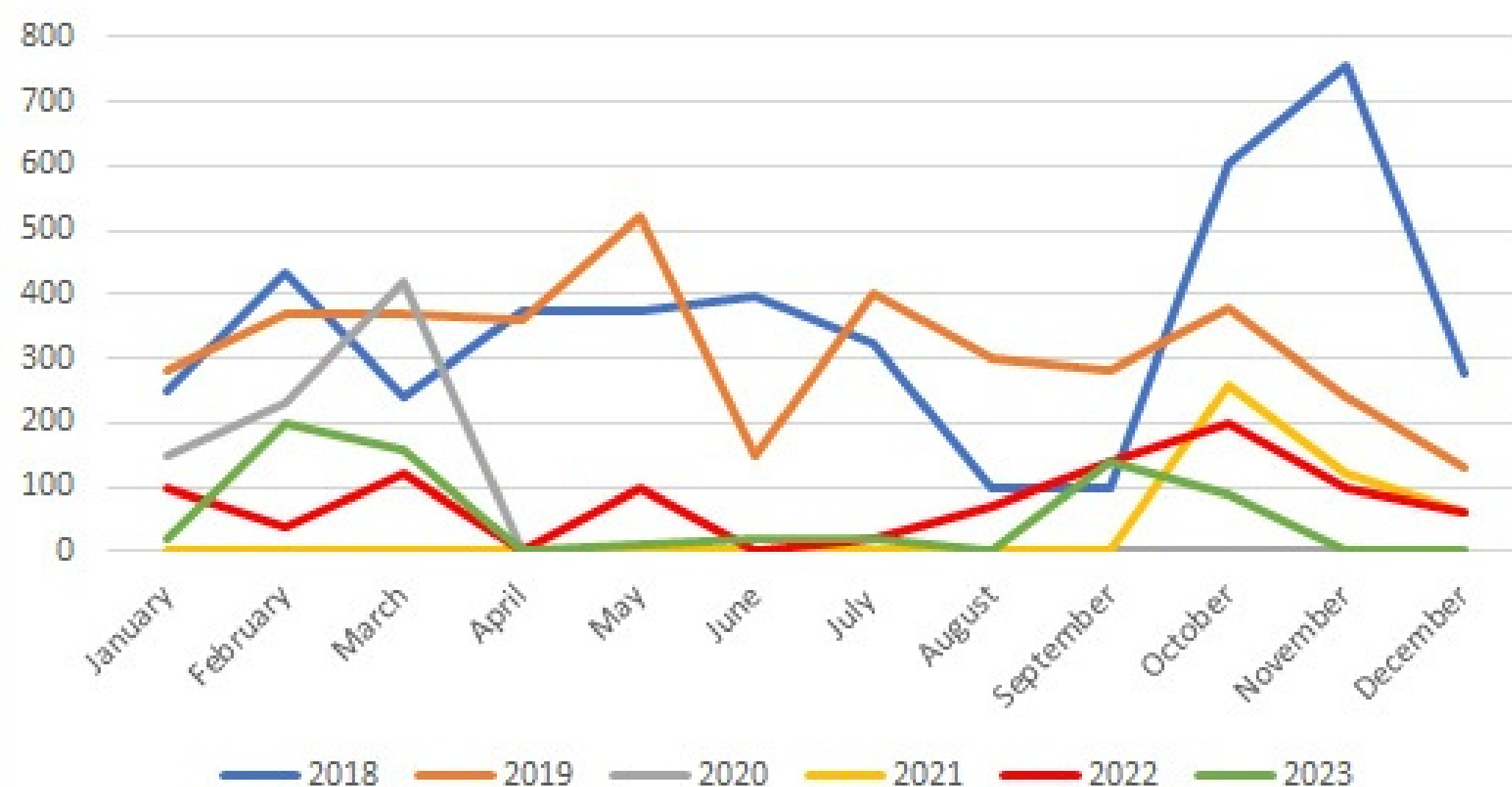
Closed loop recycling

Our closed loop process is complex in its design but simple in its concept. The used cooking oil and food waste produced by Brunel is collected by our local depots and transferred in bulk to our recycling facility in Liverpool. This facility demonstrates significant advantages over similar schemes elsewhere by uniquely entwining the technological processes of AD and biodiesel conversion. What makes it stand out is that the waste generated from UCO processing and biodiesel production is also used to feed an AD plant.

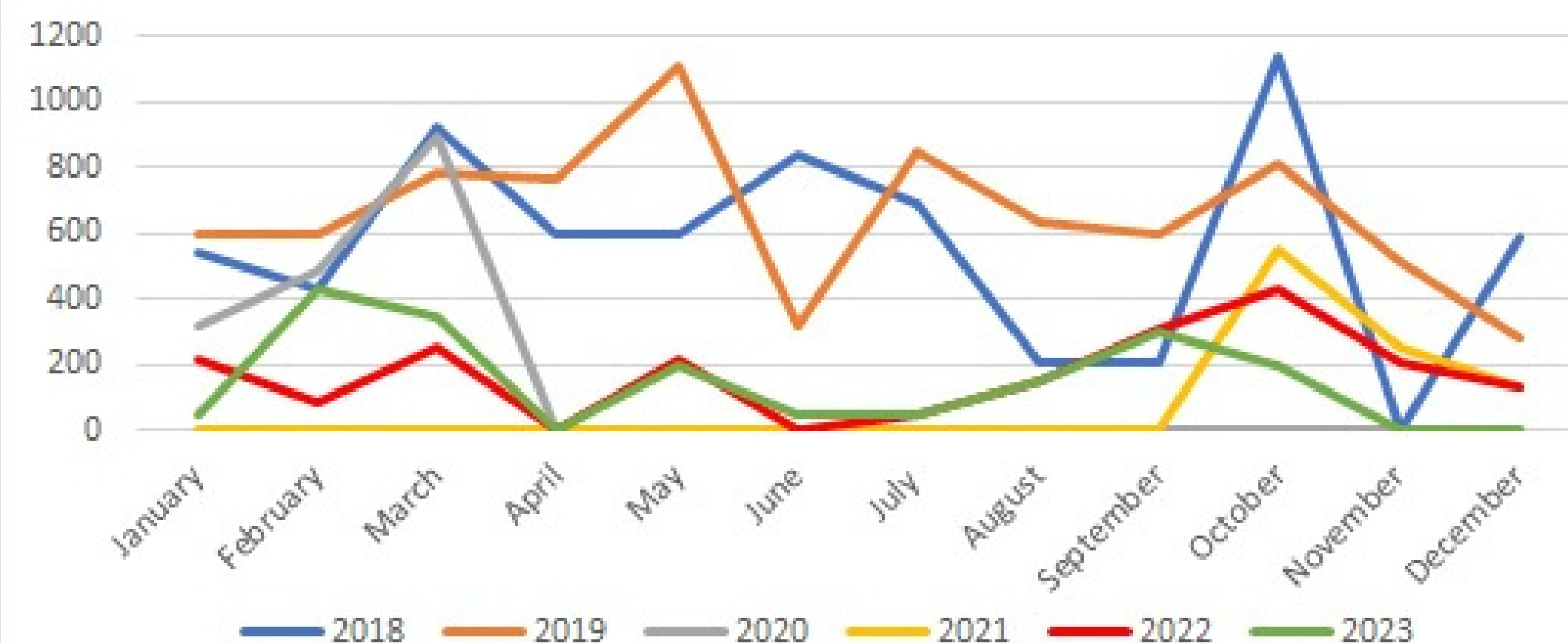
This in turn creates a biogas, generating the heat and electricity required to run the conversion technology that produces the biodiesel from the recovered used oils and fats. Once produced the biodiesel, which meets the strict EU specification EN 14214 is sold to the fuel majors where it is blended for use in forecourts. Our biodiesel can also be used by customers to fuel their distribution fleets. This mean our closed loop customers are able to fuel their vehicles on very low carbon bio fuel made from the same oil they fry their food in. A great example of a successful circular economy model with the final product saving more than 86% GHG emissions compared to fossil diesel.



Waste Oil



CO2 Emmissions



COOKING OIL RECYCLING PROCESS

Used cooking oil recycling

Used cooking oil is the best possible feedstock for biodiesel production

Whilst you can make biodiesel from many different crops, this places a burden on land needed to grow food and could contribute to deforestation and threaten biodiversity.

Creating biodiesel from something that would otherwise go to waste, makes it one of the greenest possible alternatives to fossil fuels. Used cooking oils (UCO) and fats are the ideal feedstock to refine into biodiesel. And, because they cannot be recycled into either the human or the animal food supply chains, due to the food safety risks they pose, this is by far the most sustainable way to dispose of them. We are the UK's leading refiner of used cooking oil and we use it to create biodiesel of the very highest standard. Our biodiesel is ISCC (International Sustainability and Carbon Certification) compliant and exceeds the EN14214 EU specification required for it to be used as the proportion legally required to be blended into diesel fuel sold in the garage forecourts of UK and EU countries. As a result, our biodiesel can also be used in 100% concentrations in adapted vehicles. This has the effect of reducing carbon emissions by 88% compared to fossil diesel.

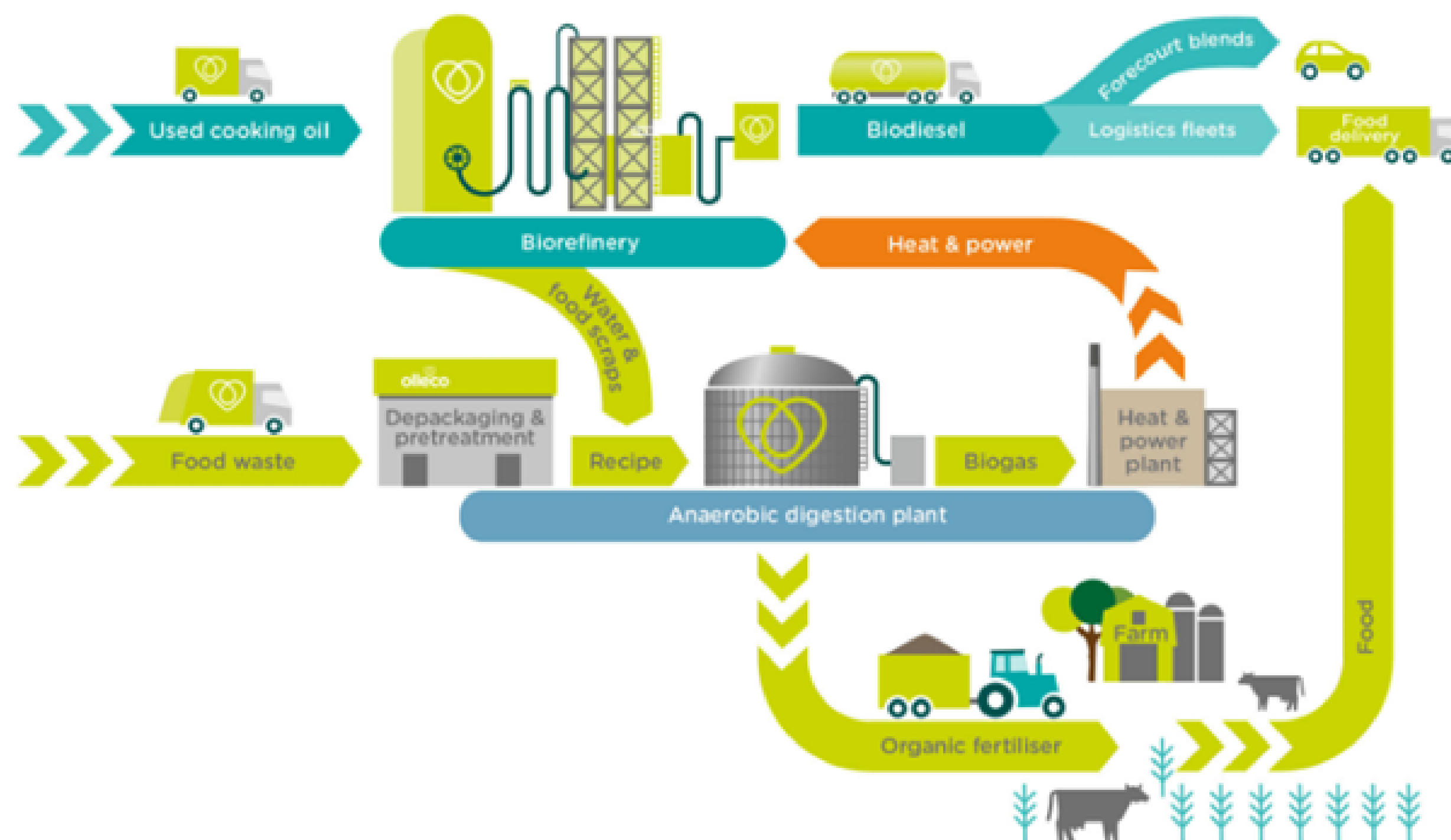
Turning waste into wonder fuel

Once your used cooking oil arrives at one of our processing sites, any food fragments or particles are removed along with any water contained in the oil. Both the food particles and water removed during processing are then used in our anaerobic digestion plant, so nothing is wasted. As part of this process, the used cooking oil we collect is tested and analysed to assess its quality and value.

This information is used to inform our reports to you about your sustainability and accurately establish any rebate due to you. For customers using both our supply and collections services, we can help advise if you are over or under-using your cooking oil and alert you to any theft problems. The processed used oil is then taken to our state-of-the-art biorefinery. This is the largest facility of its kind in the UK solely devoted to processing used cooking oil and is one of the most advanced in the world.

As your cooking oil passes through, it goes through a series of refinement, reaction and separation processes which convert it into biodiesel. The process is carefully monitored at every stage to ensure that the output will exceed the stringent requirements required by regulators and produces a clean, clear, low-odour biodiesel. This is particularly important in a world where most diesel engines and ignition systems have been technically refined to deliver extremely high levels of performance and efficiency.

Our biorefinery operates to the very highest environmental standards. The biodiesel it produces is made even more sustainable because the refinery has an integral anaerobic digestion plant that generates the heat and power required to run it. Both are fed from different wastes collected from our customers which effectively creates a closed loop recycling process for those customers who provide us with used cooking oil and purchase the resulting biodiesel.



The facility can create enough renewable biodiesel to fuel 1,632 HGVs or 57,000 cars every year.



“ I am really proud of the work our team has done to more than double the capacity of our state-of-the-art biodiesel plant in Liverpool. This plant expansion, alongside our newly acquired terminal and bulk liquids storage, means we are processing more used cooking oil than ever before, and have greater flexibility to process and move material internationally. ”

Harry Miller Plant Superintendent

Using your cooking oil to transform the planet

88%
less GHG

The exceptional quality of our biodiesel means it can be used to completely replace fossil-derived diesel. This gives an 88% reduction in greenhouse gases.

250
million litres

Is how much used cooking oil the Government estimates we produce every year in the UK. That's enough to fuel 330,000 average-sized cars.

46%
more economic

Making biodiesel from UCO is 46% more economic than making it from virgin crops.

Our green story



What's covered?

Introduction

Introduction

What happens to your used cooking oil?

Tell me more

Helping with your carbon management

The future

Facts and figures

We recover the organic resources that are left over from food business manufacturing, catering or retail operations. Having collected these waste streams as efficiently as possible, we then convert them into renewable energy helping our customers and the country to reduce carbon emissions.

We are passionate about achieving 100% resource recovery for our customers. To that end, we believe in providing food businesses with a virtuous cycle that recycles their organic waste, such as used cooking oil and food waste, into sustainable resources like biodiesel and biogas.

Our recycling centre, built on a brownfield site in Liverpool, is the country's leading site for processing used cooking oil into biodiesel using the heat and power generated from Anaerobic Digestion. This makes Olleco biodiesel the most sustainable transport fuel in the world.

As a company we also take an active role in government discussions about how our industry can best help the country meet its targets; and remain passionate about achieving our goals. We were delighted to achieve ISO 14001 certification and now operate our carbon emissions reporting to the standard of ISO 14064.

Whether our customers are independent caterers or national food service providers we know you care about the environment and Olleco is here to help you do your bit to achieve a greener future.

Video links:

Circular Economy

www.olleco.co.uk/about-us

Biodiesel

www.olleco.co.uk/green-fuels/biodiesel

Our credentials at a glance

86% GHG savings

ISCC accredited

ISO 14064-1 standard carbon reporting

Recycles over 30% of the UK's UCO

Active members of the Renewable Energy Association

Registered waste carrier certificate

Awarded Carbon Trust Triple Standard

What happens to your used cooking oil?

Olleco have created an organic recycling initiative that provides a circular solution to the problem of waste produced by the food manufacturing, catering and hospitality sector.

In 2014, we completed the construction of our Liverpool organic waste recycling centre which features a biodiesel plant powered by the outputs of an Anaerobic Digestion plant. The project is complex in its design but simple in its concept. We collect waste food and used cooking oils and fats from its 50,000 food industry customers: hotels, restaurants, pubs, fast food outlets and canteens who would otherwise throw waste food into landfill and pour used oils into the drains. Once collected, the wastes are transferred to our recycling facility, which cleverly uses the waste food to produce renewable heat and power which in turn is used to run a conversion technology that produces biodiesel from the used oils and fats: a great example of a successful circular economic model where nothing is wasted.

Bringing together leading edge technology and innovations has enabled us to achieve a transport fuel that reaches heights of Greenhouse gas savings most businesses dream of. Using ISO 14064 methodologies, Olleco has shown consistent GHG savings for its biodiesel of over 86% and the project has achieved ISCC sustainability standards. The only other output of the process is rich compost which is sent to land and used as a chemical free fertiliser.



Tell me more about Olleco...

The hospitality industry is under increasing pressure from consumers and governments to provide environmentally conscientious and sustainable services - of which waste management is one.

By managing your waste and recycling cooking oil, Olleco - with your help - are displacing fossil fuels with a process that emits more than 86% CO₂ savings than regular biodiesel, helping the UK to comply with the EU target for a 20% reduction in greenhouse gases by 2020. Along with reducing customer's carbon footprints, our aim is to diversify UK energy production through this sustainable and renewable form of waste management.

Below are some **useful facts attached to the process of recycling UCO:**

- 1) **1Mt UCO produces 4MWh**
- 2) **All diesel fuel sold on garage forecourts contains about 5% biodiesel**
- 3) As part of ABP Food Group we have been awarded The Carbon Trust Triple certification. This certification recognises our success in measurement, management and reduction of our greenhouse gas emissions, water use and waste. In addition to this, we are ISO and ISCC certified and our fleet is more carbon efficient than most

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Helping with your carbon management

It is important to measure accurate performance levels and we offer an online management information suite of reports to our customers available through our website: www.olleco.co.uk This system produces the following reports:

- Monthly collections report
- Monthly tonnages and carbon savings
- Detailed breakdown of collections by entire customer estate, customer division or individual site
- Zero collections report, showing locations that could be experiencing theft of their used cooking oil
- Food waste collection report, showing food waste tonnages and energy produced per tonne from Anaerobic Digestion
- All information can be downloaded to Excel, for further bespoke reporting

ISO 14064-1 Greenhouse Gas Reporting

To prove our environmental awareness, we have been reporting our Greenhouse gas emissions in line with the internationally recognised ISO 14064 standard. This demonstrates our proactive response to the global demand for transparent, consistent and comparable emissions reporting.

It enables us to accurately:

- Benchmark annual carbon footprints
- Identify areas for reduction
- Compare competitor's carbon footprints
- Include in RFP (requests for proposals)
- And ultimately improving our service to you

“Olleco have been reporting their Greenhouse Gas emissions in line with the internationally recognised ISO 14064 standard.”

Award wins



WINNER



www.olleco.co.uk

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Ollecouk