Organics Recycling & Biogas

Summer 2020 Issue 45

The quarterly members' magazine from REA Organics and Biogas

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Welcome

Kiara Zennaro, Head of Biogas member forum
Jenny Grant, Head of Organics and Natural Capital

What a year 2020 has been so far. No one could have predicted what it would've had in store for us – flooding at the start of the year, causing massive problems, followed by the awful COVID-19 pandemic. We hope that you and your families are well and have managed to cope during the crisis and that your business is surviving.

Disruptions to collections were widespread, coupled with supply chain disruptions causing lots of issues for businesses. As we write this, local authority collections are mostly getting back on track and HWRCs are re-opening, so we hope things are improving for your business. We've been amazed at how well the sector has adapted, with great flexibility and cooperation. We have been trying our best to ensure we are keeping members informed with all the information and have been regularly meeting with government and regulators to flag up issues raised by members.

Although the Organics Conference feels like a lifetime ago, it was only back in March! It was so nice to catch up with so many members there and to give Jeremy a send off as it was his last conference after 15 years of dedicated service at the REA. He will be much missed by us and we wish him a happy and relaxed retirement.

For the past few years, *Organics Recycling* magazine has covered topics relevant to both the composting and AD industries. The new name hopefully reflects this! Work continues for us, like most of you the REA has adapted to circumstances with staff working from home, but we are still very much available and continuing to work on important topics, such as the Green Gas Consultations, Quality Protocol revisions, Biowaste Permit reviews and many others. Do please get in touch, we'd be happy to hear from you.

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REA sets out plans for successful green recovery

The Renewable Energy Association (REA) recently published a report outlining the key policies needed to achieve a successful green recovery from the COVID-19 pandemic.

The REA is calling on Chancellor Rishi Sunak to implement these policies in his package of stimulus measures, following Prime Minister Boris Johnson's announcement of the UK's initial plans for economic recovery.

Among the policy areas addressed are decarbonising heat and promoting a circular economy. For the former, recommendations include providing an immediate cash injection into the Non-Domestic Renewable Heat Incentive, as well as funding to ensure adequate support for the development of biomethane plants. The REA has also called for funding to support local authorities in meeting their local net-zero goals.

When it comes to promoting a circular economy, the REA recommends the government invest in education programmes to drive recycling campaigns, fund support for commercial peat-free sustainable compost alternatives and implement a targeted programme of enhanced landfill mining to recover valuable materials for use in manufacturing.

Dr Nina Skorupska, Chief Executive of the REA, said: "It is no longer enough to support a net-zero economy in rhetoric alone, we must ensure that renewables are at the core of the recovery if we are to achieve the just and inclusive society the government has been referring to."

Garden waste collections could be made free, says Eustice

Garden waste collections may be made free by the passing of the Environment Bill, says Environment Secretary George Eustice.

Speaking on 18 June before the Environmental Audit Committee (EAC) in a one-off virtual session, the Secretary of State for the Department for Environment, Food and Rural Affairs (Defra) gave an update on the government's plans post-Brexit and the impacts of the COVID-19 pandemic.

Eustice said that "certain challenges" arose due to the COVID-19 pandemic that negatively impacted waste and recycling, one of which was the fact that certain local authorities stopped collecting garden waste.

He suggested that the government plans to push ahead with making garden waste collections free of charge due to "inconsistent outcomes" produced by the range of collection models across England, with some councils running charged-for services and others running free collections.

While councils continue to express concern about the prospect of making all garden waste services free, the government recently responded to a report by the Housing, Communities and Local Government (HCLG) Committee stating that free garden waste collections were the "best approach".

Coalition calls for ban on oxodegradable plastics

A coalition of trade organisations has written to the Environment Secretary George Eustice pressing for a 'total ban' on oxodegradable plastics.

The open letter written to the government on 1 June urges 'now is the time to act' as the UK revises its legislation surrounding plastic packaging as it prepares to finalise its departure from the EU.

The signatories include the Environmental Services Association (ESA), Greenpeace, RECOUP, the Foodservice Packaging Association (FPA), A Plastic Planet, Anaerobic Digestion and Bioresources Association (ADBA), the REA and the Bio-based and Biodegradable Industries Association (BBIA).

Whilst the EU's Single Use Plastics Directive prohibits the placing on the market of single-use plastic products made from oxodegradable plastic, the coalition seeks assurance that this commitment will be upheld by the UK Government once it leaves the EU at the end of the year.

Proponents of oxodegradable plastic packaging say it is a solution to plastic pollution, with claims that the additives in this form of plastic make items degrade into harmless residues over a period of a few months to a few years.

However, the signatories refute the claim that 'additives transform polyolefin plastics into biodegradable plastics', saying instead that the process results in the 'fragmentation and formation of microplastics', thereby 'worsening' the global problem of plastic pollution.

Hills Waste Solutions chooses Westcon shredder

Composter Hills Waste Solutions Ltd is the latest customer to take up the JENZ BA 915 green waste shredder marketed by Westcon Equipment UK.

Hill Waste Solutions, which operates a 40,000-tonne per annum compost site near Swindon, approached Westcon over a new shredder for its operations, undergoing a professional appraisal with on-site tests of the JENZ BA 915 Green Waste Shredder.

The on-site tests proved the machine could shred in excess of 100 tonnes per hour, that capital costs were low – £50,000 to £100,000 less than comparable high-speed or slow-speed shredders – and running costs for both fuel and wear parts were below their existing machine costs. After the appraisal, after sales support is provided by Westcon through a service contract.

JENZ Green Waste Shredders have been at the forefront of UK composting sites for over 20 years, releasing the AZ 55 model, then the AZ 660, followed by the BA 725, with the BA 915 model introduced in 2018.

Neil Bond, the Westcon Managing Director, said that JENZ had gone back to basics with the design of the BA 915, focusing on key aspects of the machine. The high infeed height of 915 millimetres and long infeed gives a smooth flow of material into the rotor. A 530 horsepower engine and a large screening area keep capacity high, and an eco mode drops fuel consumption to around 0.3 litres per tonne.

www.westconuk.com

OWS expands in Europe and Asia

Belgium-based AD company OWS has announced plans to expand further in Europe and Asia.

OWS has started construction on a new plant in Yorii, Japan, using its DRANCO digestion technology, while two more are planned for Dendermonde and Leuven in Belgium and Chongqing in China.

Upon completion of these additional facilities, the total capacity of OWS' DRANCO facilities to process household waste organics will reach more than one million tonnes per year.

OWS hopes that DRANCO technology will spread further and help to increase recovery of organic waste from the residual waste stream, thanks to the ability of DRANCO technology to produce a clean compost similar in quality to compost from source-separated organic waste out of residual waste. OWS' AD facility in Bourg-en-Bresse, France, has been producing biogas and clean compost from mixed residual waste since 2016.

Commenting on OWS' expansion, Piet Smis, General Manager of OWS, said: "These four new projects are very important for OWS. Projects in Belgium are of vital importance to OWS as a showcase close to the main office. But the new projects in China and Japan are both very important for the geographic expansion of OWS."

www.ows.be

NNFCC releases latest AD Deployment in the UK report

NNFCC recently published the seventh edition of its annual Anaerobic Digestion Deployment in the UK report. The report summarises the developments in the UK's AD industry over the past 12 months and looks ahead to future developments in the sector.

The report finds that despite 47 plants being under construction at this time last year, many are yet to reach or complete the commissioning phase due to the inclement weather conditions in the first quarter of 2020 immediately followed by COVID-19. NNFCC states that the level of activity in the AD industry over the past 12 months is "not reflected in the latest deployment figures and does not reflect the ambition of the industry".

NNFC states it has been a "turbulent year", in which a significant rise was expected but a modest growth has been reported, with many plants in construction facing unforeseen challenges in recent months.

Despite this, recent announcements from the Department of Business, Energy and Industrial Strategy (BEIS) have confirmed intentions for a new Green Gas Support Scheme as a successor to the RHI for has-to-grid projects, offering support out to 2025 and with the Renewable Transport Fuels Obligation (RTFO) also committing to support biomethane as far out as 2032, NNFCC believes the future looks "promising".

NNFCC produces regular market reports on the organics recycling sector and offers a number of tools to support project development, operational and compliance activities. The organisation also acts in an advisory capacity, guiding and troubleshooting projects, businesses or sectors that face regulatory, market or supply chain challenges.

www.nnfcc.co.uk

A final few words from Jeremy Jacobs

Jeremy Jacobs,
Former Technical Director, REA

After a month of retirement preceded by six weeks of furlough, I have had some time to reflect on my last 15 years in the world of organics and what has stood out for me over this period.

I was told early on in my career that it is the people that make a company successful and similarly it has been the interaction with many members that has given me the most satisfaction over the years. The future prosperity of the sector rests firmly in your hands and I have every confidence that these are safe hands prepared to innovate and capitalise on the 'Greening' Agenda which is at the core of our existence.

Change is the new norm which we all need to embrace in these uncertain times, however, at the same time it is also vital that as an industry we work together with the regulator and one another and continue to push the quality agenda as environmental issues become more pressing.

Thank you once again for your loyal support and with Jenny at the helm of the REA Organics ship you can rest assured you are in safe hands. I plan to do a grand tour later this year so will get to see some of you on our travels. All the best in your various endeavours and please stay in touch.

Organics Conference 2020 a hit

Composters and those involved in the wider organics supply chain came together to celebrate the 25th anniversary of REA Organics and its various guises at its conference and gala dinner on 12 March.

In what was one of the last conferences before the government implemented lockdown measures to try and contain the COVID-19 pandemic, attendees at the Chesford Grange hotel in Kenilworth, Warwickshire, celebrated the achievements of REA Organics and how the sector has changed in the last 25 years, before looking ahead to the future of the organics sector.

Topics ranging from contamination in feedstocks to the role of organics in carbon sequestration were discussed as conference delegates heard from a number of faces old and new, including Dr Jane Gilbert, who headed up the organisation in its early years, and an international perspective presented by Susan Antler from the Canadian Composting Council.

Before the live demo site visit to Jack Moody Recycling's Berkswell site on 13 March, the conference was followed by the REA Organics black tie gala dinner and drinks reception, which made a fitting end to what was a momentous day of celebration of the organics sector.

While much is uncertain in our new normal, the organics sector can look forward positively to the next 25 years. We hope to see many of you along for the ride.

Tariff Guarantee Scheme gets extension

The government has announced that it will be extending the Renewable Heat Incentive (RHI) schemes in light of the difficulties caused by the COVID-19 pandemic.

Applicants to the non-domestic RHI – which provides a guaranteed tariff rate for low-carbon heat projects, including biogas from AD, over 20 years – that applied to the government's scheme before 29 June will now have an extra 14 months to get their low-carbon heat generators up and running.

Projects previously had a January 2021 deadline to be up and running to be eligible for the second round of tariff guarantees, but that deadline has now been extended to March 2022. The domestic RHI scheme has also been granted an extension until 31 March 2022.

In addition to the scheme extensions, a third allocation of funding will open for new applicants in July to encourage more investment into the sector as the government looks to make progress towards its goal of net-zero carbon emissions by 2050.

Dr Nina Skorupska, Chief Executive of the REA, praised the decision to extend the Tariff Guarantee Scheme in light of the COVID-19 crisis, but questioned the decision not to extend it further: "The announcement rings bittersweet for a number of those in the heat sector. Choosing not to extend the Non-Domestic RHI further alienates a number of renewable heat technologies and projects that are already facing a twelve-month policy gap. Unless supported, potential for growth in renewable heat will be undermined and the already established sector at risk of financial collapse and loss of jobs."

Successor schemes to the RHI include the Clean Heat Grant Scheme, Green Gas Support Scheme and Green Heat Networks Fund, which the government consulted on.

REA update on Quality Protocols

Jenny Grant,
Head of Organics and Natural Capital, REA

Earlier this year, the EA issued a call for evidence to inform the review of the Quality Protocols (QPs) for compost, anaerobic digestate and poultry litter ash. REA consulted members and responded to the call for evidence.

Following discussions with the EA, we believe that the EA will state that the compost and AD QPs as they are now do not demonstrate end of waste, and will propose revising the QPs and then continue to support them. Once the EA publishes its response (likely to be summer 2020) we will have a clearer picture. The existing QPs (or similar RPSs) will remain in place during the revision process.

Any revisions and further evidence gathering will need to be paid for by industry and the EA estimates the cost to be approximately £20,000 per QP to cover the EA's time to review the information. The EA will give industry approximately six months following the publication of its response to make the commitment to raising the funding, and will likely withdraw support if no funding is made available.

The revision process will take 6-12 months and will involve the EA setting up a review panel (which we hope REA will be invited to join). As soon as further information is available, we will notify members and we plan to arrange a webinar or workshop to discuss the key priorities for industry.

The devolved administrations will make their own decisions on their positions regarding the QPs and we believe they are likely to participate in the revision process.

For more info, please contact Jenny (**jenny@r-e-a.net**) to discuss.

Government to decide on EU Fertilising Products Regulation

Emily Nichols,
Technical Manager, REA Organics

The EU Fertilising Products Regulation 2019/1009 (EU FPR) directly entered into force in EU countries in mid-July 2019, with manufacturer self-assessment and independent assessment of conformity articles became applicable on 16 April 2020, while remaining articles will become applicable from 16 July 2022.

The timing of the UK's exit from the EU on 31 January 2020 means that our government has some freedom to decide whether any of the articles that had not become applicable at that time should become law in the UK.

The EU FPR sets criteria for a range of waste and non-waste derived materials that can be used in fertilisers, liming materials, soil improvers, growing media, inhibitors and plant biostimulants, and fertilising product blends, without restricting market sectors to which they can be supplied. Those that find the current UK End of Waste rules restrictive will be keen to look into which parts of the EU FPR would support the increased, appropriate and environmentally-friendly use of products that include composts and/or digestates and which aspects of it may need to be changed.

The government intends to consult with relevant industries this autumn on how they could envisage a UK version of the EU FPR working here. Progress with review and potential revision of the QPs for composts and digestates will need to be taken into account, the timing of this and the EU FPR consultation might align well enough to support this. Here at the REA we plan to return our attention to the EU FPR and talk further with Defra prior to the opening of that consultation.

Italian compostable packaging EPR scheme created

David Newman,
Managing Director, BBIA

Italy has been at the forefront of compostable plastics over the past decade, creating a clear legal framework for their use.

However, up until now producers of this packaging have been required to pay into the national extended producer responsibility (EPR) scheme for plastic packaging, with contributions of around £20 million a year, none of which goes towards the composting and AD facilities where this packaging is recovered.

No more. In May 2020, the Italian Environment Minister approved statutes to set up a new compostable packaging EPR scheme known as BIOREPACK. The consortium will sit within the Italian packaging EPR regime, but will be able to establish the level of contributions from the value chain – currently €330 per tonne – with more autonomy and in discussion with organics recyclers.

All financial contributions to BIOREPACK from across the value chain will go towards funding data management, better labelling, consumer communications campaigns and recycling and recovery infrastructure, ensuring that these contributions go to support the compostables market and recycling.

Italy's new system should be a lesson for the UK. Under the current PRN system compostable packaging companies are paying circa £1-£1.5 million in PRNs, none of which is of any benefit at all to the industry itself nor to the recovery and treatment of these materials in AD and composting.

BBIA hopes that the reform of the UK EPR system, provides the necessary accommodations for producers of compostable packaging and AD and composting operators.

With local authority finances stretched but food waste collections still imperative, *Organics Recycling & Biogas* asks three experts whether providing compostable liners for food waste to residents is worth the cost

Andy Sibley,

Managing Director, Envar Composting

We all know to ensure a high collection rate of food waste you must make things easy, safe and clean for the householder. Not doing this will dissuade even the most enthusiastic recycler.

There are various ways of keeping bins clean. A plastic liner or bag is easier to deal with through front-end wet AD with a de-packaging system (but has recycling issues as the majority of the plastic that is removed is either sent to landfill or energy recovery), while a compostable liner can be processed through an in-vessel composting (IVC) (but again has issues with both time it takes to break down and the contamination held within the waste which is harder to remove after the composting process). The most effective solution is of course not using either and keeping food waste naked.

What makes the difference boils down to the collection methodology i.e. commingled food and green waste, green waste or separate food and the technology to treat the material. A local authority will have to weigh up all the factors and make the decision based on their unique set of circumstances. One solution unfortunately does not fit everyone unless there is clear guidance on a national level for food waste collections.

Stuart Hayward-Higham,

Technical Development Director, SUEZ recycling and recovery UK

This question is not new but will be one facing many local authorities as the expected 2023 deadline for the introduction of mandatory household food waste collections grows closer, as well as the prospect of new extended producer responsibility and deposit return scheme requirements.

One potential benefit of providing liners is increased participation in food waste collection services. However, in SUEZ's experience, restricting the capacity in people's residual bins is a far more effective way to encourage uptake of food waste and other recycling services, so providing liners on the basis of increased participation alone wouldn't justify the cost.

Where liners could come into play is their potential to reduce contamination, with some provisos. Liners should ideally be made of a material that is both compostable and digestible, so suitable for either treatment route used for food waste i.e. AD and IVC. The bags should be coloured and labelled in an easily identifiable manner to minimise confusion in households and so incorrect use can easily be spotted during collections.

They should be provided by all collection authorities and other service providers and their use should be mandatory. A common system using a liner made to a defined standard, suitable for either treatment method, that is uniquely and easily recognisable would reduce contamination.

Contamination removal is essential not only for plant operational efficiency but, more importantly, for the quality of the valuable digestate and compost products used on land that replace essential minerals and nutrients naturally and sustainably, helping to preserve our natural capital.

Emma Beal,

Chair, NAWDO

The two key drivers that are crucial to the viability of food waste collections for local authorities are the amount of food waste being discarded per household and the number of households wanting to take up the service.

What we find is the number of households participating grows slowly and is linked to several other factors such as collection methodology, frequency of rubbish collection, kerbside or communal properties and quality of service.

Provision of free liners can play a part in persuading people to get started but if the free liners are delivered to every household and the uptake is low, the cost cannot be recovered.

Food waste recycling reduces food waste year on year as people realise how much food waste they are throwing away.

If local authorities and service providers focus our attention on the barriers to using the service, it encourages us to look at all of the ways people can be persuaded to start recycling food waste and to pay more attention to who does and who does not use the food waste service and why.

Targeted provision of food caddy liners to householders does increase participation as a short-term project but it is a small factor and ultimately all liners are simply extracted from the food waste stream and disposed of as waste.

In reality, food waste recycling customers have a very low tolerance for any service issues that may affect their experience at all, especially when the competitor is the rubbish bin.

Resilience in the time of coronavirus

The COVID-19 pandemic has turned normal life upside down, with the organics sector one of the worst affected in the recycling and waste industry. **Olivia Rutherford** investigates the impact on the sector and how operators have been dealing with the crisis

You would be hard-pressed to find an aspect of British society unaffected by the COVID-19 pandemic, such is the indiscriminate nature of the disease. From pubs, restaurants and cinemas, to factories, railways and offices, almost every part of the active fabric of the UK has been deeply affected, and the organics sector is no exception.

With local authority food and garden waste collections experiencing extensive disruption – just 41 per cent of garden waste collections were operating normally at the start of April, according to the Association of Directors of Environment, Economy, Planning and Transport (ADEPT) COVID-19 impacts survey – and almost all Household Waste Recycling Centres (HWRCs) closing their doors as the UK entered lockdown, many sources of feedstock upon which composting and anaerobic digestion (AD) facilities rely were cut off.

Add to this the closure of the hospitality sector, from where a great proportion of food waste comes, and ongoing social distancing measures which have forced operators to significantly alter their working practices, the pandemic has had a traumatic effect on the organics sector.

So how have different operators been coping during the pandemic? And how might lessons from the pandemic help operators build in greater resilience going forward?

'A voice for its members'

The pandemic has been a hugely difficult time for organics recyclers, and the REA has sought to provide support and advice for its members throughout the pandemic, communicating with the Department for Environment, Food and Rural Affairs (Defra), the devolved governments and environmental regulators to highlight the issues reported by its members to inform their assessments and mitigating measures, while acknowledging that not all operators have been impacted in the same way.

"The impact of the Covid-19 pandemic has been felt by all businesses, with some more affected than others," says Jenny Grant, Head of Organics and Natural Capital at the REA. "Supporting our members during this challenging time has been our top priority and the REA prioritised business continuity work for our members."

The REA has participated in Defra's COVID-19 Waste Planning and Responses Group and the Scottish Government's COVID-19 guidance Waste and Resources Sector Forum, as well as participating in joint discussions with other industry trade associations, such as with the Chartered Institution of Wastes Management (CIWM) COVID Advisory Group.

Due to the fast-moving nature of COVID-19 developments for the sector, the REA created an area on its website to keep members informed and maintained an up-to-date Members Briefing, detailing all the policies and advice given publicly by the government or information from civil servants, as well as providing information on specific business support measures and policies available to members, such as the Coronavirus Job Retention Scheme or government support measures on supplier relief.

Supplier relief is of particular importance, and the REA has worked to make members aware of two notes the government has produced on procurement (PPN:01/20) and supplier relief (PPN:02/20), which essentially ensures that those operators on unitary (payments per tonnage) contracts still get paid by their suppliers. Mark Richmond, Technical Director at environmental consultancy WRM Ltd states that operators with guaranteed minimum tonnage (GMT) contracts have found navigating the financial challenges of the pandemic slightly easier and seemed more resilient to difficulties, while those on a unitary-based contracts may be facing a "cliff edge" due to the disruption to collections.

Richmond welcomes the government's notes on procurement and supplier relief despite his opinion that their "awareness and visibility has been pretty poor" overall. "The procurement papers are welcomed," he says. "I know a number of operator customers, both AD and small composters, that have approached their local authority contacts and with this paper in hand, have used the range of remedies that are within the paper to negotiate some kind of outcome that has helped to lessen the financial impact of COVID."

> Matters have been aggravated by the fact that local authority garden waste collections were classified as a 'low priority service' by Defra

Hard times for composting

Composters in particular have been seeking out that support, being

especially hard hit by the pandemic. For green waste composting facilities that would normally expect to see high tonnages around Easter and the start of summer, Richmond underlines that as the pandemic hit right at the end of that cycle, it could not have come at a "worse time". Matters have been aggravated by the fact that local authority garden waste collections were classified as a 'low priority service' by Defra influencing councils' decisions to suspend or roll back these services.

For the Green Waste Company, which has green waste recycling facilities in Cornwall, the impact of COVID-19 on business operations has been "massive". Director and Founder Felicity Richards comments: "Whilst kerbside collections kept going, as municipal sources stopped and HWRCs closed there was a significant drop in volume of tonnage delivered to our sites in Cornwall. We have been grateful for the government furlough system and have been running our sites on skeleton staff. However, the financial impact is yet to be felt as there is a 60-day time lag on tonnage payments."

Other composters shared a different experience of the pandemic, with some experiencing a striking increase in demand. Down Farm in Odiham, Hampshire, an open windrow composting (OWC) site, is popular with trade customers and does not hold any local authority contracts. Robert Benford, a partner at G K Benford & Co, which runs the site, observed an "upsurge in business" during the pandemic – gaining two to three new customers a week – leading the business to even employ a new member of staff.

"We're still guessing as to what's caused it," he says. "I think it's a combination of factors. On one hand, we're getting a small number of members of the public coming in who don't want to wait a long time for an appointment at a HWRC or face the queues, so they're prepared to pay a gate fee to us to take their private garden waste.

Similarly, Envar Composting's Manager Director Andy Sibley comments: "Envar has been largely unaffected by only a small percentage of customers temporarily halting collections. Both our OWC and IVC sites have been as busy as we would have expected through the period, with the cessation of some collections being outweighed by those remaining being 20-30 per cent busier."

Iain Pickles, Head of Sales at Biogen, which operates a network of AD, IVC, OWC and transfer stations spread across England, Scotland and Wales, even thinks that the recent surge in garden waste could make up for the shortfall caused by the pandemic. He says: "The main impact on the business has been cancellation or abandonment of a lot of garden waste collections from councils due to staffing levels. But we've seen that come back since the beginning of May."

Where local authority collections have been disrupted, some operators have decided to go straight to the source to maintain feedstocks. East Lothian-based organics recycling company Forth Resource Management (FRM), which runs ten composting sites across Scotland experienced a significant drop in tonnages from thousands of tonnes a month to next to nothing at the start of the lockdown.

As a result, FRM decided to bring its Caledonian Collections service – a home organics collection service for householders – forward, launching in April and collecting over 1,800 builders' bags of organic material since, overcoming initially "overwhelming" demand to now be looking to expand to collect materials such as wood, rubble and turf.

"Whilst this tonnage is significantly less than we would expect from the local councils over the same period, this has been a great way to increase brand awareness," says Project Manager James Gray. "We offer a free small bag of Caledonian Green Goodness [compost] with every collection, which has proved an extremely popular feature and helps us to get our products into the hands of gardeners across Edinburgh and East Lothian."

Food for thought

For AD facilities, while local authority food waste collections have been maintained to a greater extent than garden waste collections, allowing most sites to continue operating as normal, they have been hit by the closure of the hospitality sector, which has seen a drastic drop in commercial food waste.

Grant stresses that "disruptions to food supply chains and the closure of most of the hospitality sector had a massive impact on the AD sector", and the REA teamed up with the Anaerobic Digestion and Bioresources Association (ADBA) after concern from the Environment Agency (EA) and other devolved environmental regulators over the large amounts of organic waste arising during the coronavirus crisis, to run a survey matching organic waste producers with the nearest suitable

FRM dropping off Caledonian Horticulture compost to a customer

Envar's composting facility in Cambridge

AD operators to try to ensure that AD operators had sufficient feedstocks during the pandemic.

Despite an increase in household tonnages for the AD sector – the average amount of food waste generated per household is up to 1.7 kilogrammes (kg) from 1.6kg pre-Covid – it appears to not have completely offset the drop in commercial food waste deliveries from the hospitality sector due to lockdown closures, according to Richmond, who says there is still a "capacity gap" across much of the sector.

Biogen's AD facilities experienced this rebalancing of feedstock sources, while managing to continue normal operations. "In terms of AD facilities, we've seen a reduction in deliveries because of the closure of the hospitality sector," says Pickles. "Approximately one in five meals are taken away from home, so we've seen that offset by an increase in household waste, because people have been locked down and are preparing more food at home where they would normally be eating out every so often."

A new normal

Even when feedstock has been getting to sites, the government's social distancing measures have added another layer of complexity for operators trying to navigate the pandemic 'new normal'.

The logistics of maintaining operations amidst social distancing, where workers and members of the public must maintain a distance to limit the spread of the virus, has meant new ways of working for many organics recyclers. Policies have been introduced on hand sanitizing and washing and steps have been taken to minimise chances of exposure from contact on site such as split shift systems, rules on how many drivers within collection cabs, automatic check-ins, not signing tickets and pre-induction of site staff. Increased working from home has become commonplace for office staff, as in many sectors.

However, many of the operators we spoke to for this article had put effective systems in place, either before or during the pandemic to be able to cope, which many feel will serve them well going forward, especially in the event of a second wave.

Down Farm already had the systems in place which worked in its favour for the COVID-19 pandemic, such as access to the site via a customer swipe card and contactless payments meaning there is no staff/customer contact on the site. Benford comments: "We're very lucky. Regular customers simply have to swipe the card reader at the entrance and they can come in and tip. They don't need to talk to anyone to swipe their way out. That's all recorded on a time and attendance system, so they don't need to interact with the staff at all. And then the casual customers who come in, we can take contactless card payments."

Similarly, Pickles describes that Biogen had a "robust business continuity in emergency preparedness plans in place" which pre-existed Covid and aside from the changes it made to social distancing and steps to minimise exposure, there have not really been great changes to the way the business is operating going forward.

Considering the organics recycling sector as a whole Richmond suggests that in order to build resilience going forward, it is important to reflect on the lessons on the pandemic and to formalise this into coherent management systems, procedures and contingency plans.

"I think there's some reflection required," says Richmond. "There's a need for some evaluation of how people have managed so far and to build on those measures that have been implemented, while understanding what works for one site won't work for all."

> Social distancing measures have added another layer of complexity for operators trying to navigate the pandemic 'new normal'

"There's some resilience that can be built in respect of formalising contingency measures into management systems and procedures going forward. Aside from that anything that provides certainty, such as GMT contracts, will help in future disruption."

Although the sector has taken an unprecedented beating, businesses have rapidly adapted to social distancing measures and implemented changes across their entire operations. Whilst it's unforeseeable whether disruption will peak again for the organics recycling sector as the coronavirus crisis continues, the resilience of the sector in managing difficulties in recent months should provide some encouragement regarding the sector's ability to cope in the event of further disruption in the coming months.

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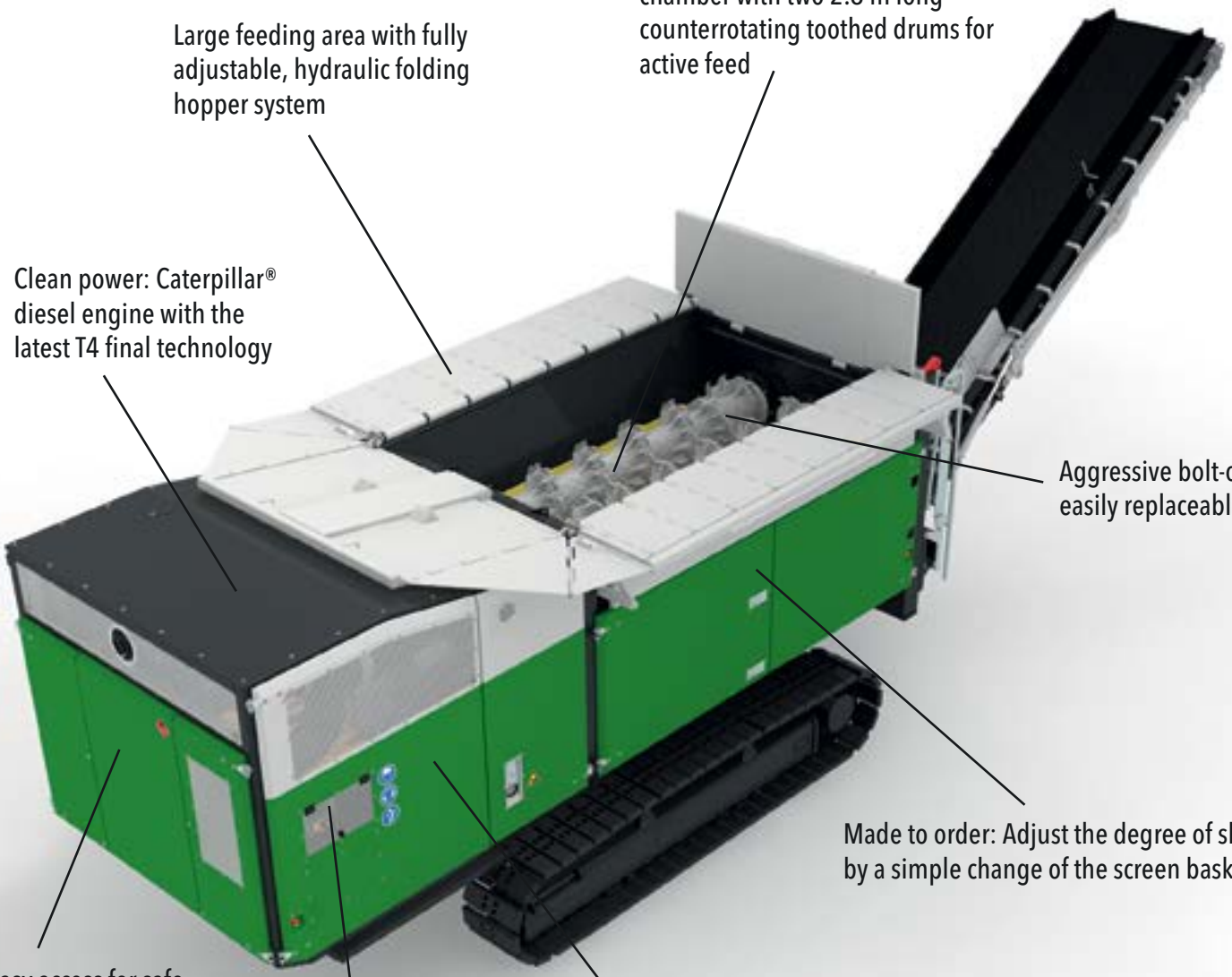

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A future support scheme for green gas

As the Renewable Heat Incentive comes to an end, **Kiara Zennaro** summarises the government's proposals for a new support scheme for green gas and details the REA's response to the consultation on these proposals

Kiara Zennaro, Head of the REA Biogas member forum

On 28 April, the Department for Business, Energy and Industrial Strategy (BEIS) published two long-awaited consultations from the green gas sector: one on the closure and future-proof of the Renewable Heat Incentive scheme (RHI), the other on a future support for low-carbon heat, including green gas.

On the same day, BEIS also published a stakeholder notice, stating that AD plants currently being developed under the RHI scheme (with so called 'Tariff Guarantees') would benefit from an extension, albeit short, to their commissioning deadlines, given the delays caused by COVID-19.

Needless to say that all these announcements were mostly welcomed by the green gas sector as they show a clear commitment from the government to support the AD sector and biomethane in particular.

The consultation on a future support for low-carbon heat specifically sets out proposals for a new Green Gas Support Scheme (GGSS) aimed at increasing the proportion of green gas in the grid, through support for biomethane injection. The plan is to introduce the new Support Scheme from autumn 2021 to 2025/2026. In addition, BEIS is also consulting on a longer-term support mechanism after the GGSS to include other green gases, including potentially hydrogen and biomethane from thermal gasification.

The government commitment to support green gas doesn't come as a surprise. Heat represents the largest energy consuming sector and greenhouse gas (GHG) emissions from heat are the single biggest contributor to total UK emissions (37 per cent). Approximately 85 per cent of UK households and 65 per cent of non-domestic buildings use natural gas for heating, and biomethane is regarded by the Committee on Climate Change (CCC) as a low-regret option.

Along with other renewable heat technologies, biomethane from AD is an established and commercially ready technology. This means it is one of the few technologies that can help in the short and medium term to make progress towards decarbonising the gas grid, whilst other technologies such as hydrogen production become technically and commercially ready to be deployed.

BEIS policy is also in line with other wider government policies, such as Defra's Resources and Waste Strategy, which has committed the government to reduce the amount of food waste and mandate separate food waste collections for every household and business in England.

Green gas targets

In the consultation document, BEIS highlights that its central assumption is that the GGSS will support 2.9 terawatt hours per annum (TWh/annum) of green gas by 2030/31. It intends to treble the amount of biomethane injected in the grid by 2030, compared to the 2018 level of 3.3 TWh/annum. BEIS' target seems quite conservative compared to other recent estimates made on the biomethane potential by 2030, including those set out by the CCC in its 'Net Zero: Technical Report'. This includes a target of 20 TWh/annum of biomethane by 2030. Some members of the REA are therefore calling for the target set by BEIS to be more ambitious. Others, however, have voiced concerns that the target needs to be conservative given current constraints on the resources available to make biomethane, in particular food wastes.

The GGSS proposals look a lot like the RHI. This also doesn't come as a surprise, as the RHI has mostly been a success story for the biomethane sector. The scheme has supported the development of 97 biomethane plants with another 33 currently being built. It has stimulated business investment of over £1 billion (on average £10 million per project) supporting the development of competitive supply chains, with a number of AD and biomethane equipment providers currently active in the UK and companies involved in the design, construction, operation of AD plants as well as grid connections and gas trading.

> AD is one of the few technologies that can help in the short and medium term to make progress towards decarbonising the gas grid

Tariff changes

The BEIS consultation includes proposals for a tariff-based mechanism with a tiering structure based on the volumes of biomethane injected. This structure has worked well under the RHI and is designed to provide an appropriate level of support to plants avoiding overcompensation. So, from the government perspective, it delivers best value for money. However, BEIS

is seeking views on new tier levels to encourage plants to be sized optimally and encourage economies of scale (Tier 1 first 60,000 megawatt hours (MWh) of biomethane, Tier 2 next 40,000 MWh, Tier 3 remaining biomethane), as well as a reduced tariff length (10-15 years, as opposed to the current 20 years). In terms of tariff levels, BEIS is seeking views on a range of values (£4.9-£5.5 per kilowatt hour (kWh) for Tier 1, £3.25-3.75/kWh for Tier 2 and £1.5-£2.0/kWh for Tier 3).

Overall, members view the proposed changes positively, but have voiced concern over the tariff levels and the proposed reduction to the tariff length. Most members have fed back that shortening the period from 20 to 15 years – let alone 10 years – would lead to greater investment risks, leading to higher cost of capital and less sustainable roll out of the industry. This is even more relevant if the tariff period is shortened without increasing the level of the tariff, resulting in significantly less overall support available to projects under the scheme.

Feedstock goals

BEIS is also keen to promote the use of waste feedstocks and is seeking views on whether it should increase the minimum percentage of wastes treated through AD to above 50 per cent.

Most members have expressed concerns over these proposals for a number of reasons, including but not limited to: the uncertainty around the volumes of food wastes that are available now and may become available in due course as a result of Defra's introduction of separate food waste collections; and the challenge for some agricultural plants – depending on the location – to access agricultural and processing residues, or to be set up to take food wastes from commercial sources and local authorities. This is because of the higher capital, processing and operational costs that come with treating these types of wastes, as well as the additional regulatory requirements that would need to be met when these types of wastes are treated.

Given that in the future biomethane producers registered under the GGSS are likely to supply volumes of green gas for transport under the Renewable Transport Fuel Obligation, the REA's response has also highlighted that it is important that the two schemes are aligned as much as possible in terms of feedstocks classification and associated payments.

Future Biogas' Redstow Renewables facility

EU alignment

Within the consultation, BEIS welcomes stakeholder views on whether the sustainability criteria under the GGSS should be aligned to those set out in the EU's Renewable Energy Directive II (RED II). These criteria are more stringent than those currently adopted in the RHI. Each consignment of biomethane supported under the RHI scheme is currently required to meet a GHG limit of 34.8 grammes of CO2e per megajoule (MJ) of heat generated or MJ of biomethane injected (125.28 kilogrammes (kg) of CO2e per MWh). This represents a 60 per cent GHG saving on an EU fossil heat comparator of 87g CO2e/MJ. RED II sets a 70 per cent GHG emission threshold for plants starting operation after January 2021 and 80 per cent for plants starting operation after January 2026.

Overall, many members are supportive of aligning the criteria to RED II, as this is sensible and there is a risk that not doing it may create barriers or difficulties to future green gas trade in the European market.

However, if BEIS were minded to align its criteria to RED II, we have strongly recommended that averaging of consignments to calculate lifecycle GHG emissions against the GHG target should be allowed in line with RED II, and that the methodology to calculate the lifecycle GHG emissions should be improved to recognise a number of factors and encourage best practice techniques that are currently unaccounted for within the methodology.

Digestate views

For the first time, BEIS' consultation is seeking views on digestate, in particular on what measures and technologies exist for reducing ammonia emissions from digestate, the barriers to its widespread deployment and the reasons for the lack of commercial demand for digestate. There is plenty of feedback in our consultation response on this aspect, but, in a nutshell, it all comes down to cost. Strategies to minimise ammonia emissions do certainly exist but the significant extra costs and, to a lesser degree End of Waste issues associated with processing of digestate have so far acted as a strong disincentive to adopt such strategies.

Finally, the REA's response highlighted that our preferred mechanism for a longer-term support for green gases would be a green gas obligation on gas suppliers to meet a gradually increasing GHG reduction target over a period of time. These would be technology neutral. In order to meet this target, gas suppliers would have the incentive to source the gases that deliver the largest and cheapest carbon savings. This is a good way forward to encourage technologies, practices, techniques and clean gases that can deliver the largest carbon savings.

You will be able to read the REA's full response to the consultation once this is available at **www.r-e-a.net**.

CCS & BCS

Molly Rogers, Research and Communications Assistant at REAL, provides the latest on the Compost and Biofertiliser Schemes and the REAL Research Hub

COMPOST AND BIOFERTILISER CERTIFICATION SCHEMES

New Independent Laboratory Auditor

We are pleased to announce that through an open tender process, we have appointed the Open University to carry out the independent audits of the CCS and BCS Approved Laboratories. These audits check the Approved Laboratories conformance with their Terms and Conditions, which have been set out by REAL. The Terms and Conditions are available to download from the CCS and BCS websites.

Following a careful evaluation and interview period at REAL, the Open University was offered the contract and the independent audits will be taking place over the coming months. They will be led by Graham Howell, who has extensive research and development experience relating to the PAS 100 and PAS 110 test methods. Graham will bring a fresh approach to the auditing regime and the audits will be focused on scheme specific tests. REAL look forward to working with him and the Open University team over the next few years.

Why Not? Project

We are currently undertaking a marketing project; the 'Why Not? Project'. The project aims to understand why a portion of UK compost and digestate producers that are eligible to join the schemes are not currently certified under the CCS or BCS. We plan to contact non-certified sites directly, in order to promote the benefits of the scheme, which include fulfilling local authority tenders, ensuring an effective quality management system, reducing costs and marketing opportunities. We hope that this marketing project will increase awareness of the schemes and encourage producers to join.

If your site/organisation is not certified under the CCS or BCS and you would like to find out more information about joining, please email Molly Rogers at molly@realschemes.org.uk.

CCS Sampling Webinar

In April 2020, we hosted a webinar for compost producers based on our CCS sampling guidance. The webinar had a three-part structure; a run through of the sampling guidance, a closer look at sampling in practise and advice on developing sampling SOPs.

We received very positive feedback from operators that attended. One operator commented: "The webinar was a very good and time-efficient method of training to update on rules and processes."

Certified operators can look out for future invitations for webinars on topics including sampling and understanding PAS test results. We also plan to hold more sampling workshops when possible, at various locations in the UK. Operators can look out for the details of these.

RESEARCH HUB

Successful contractor of the first project of the Hub

Following a tender period that concluded in December 2019, REAL is delighted to announce that NNFCC has been appointed as the contractor for the first project of the Research Hub: 'The development of a research library for the Organics Recycling industry'. NNFCC submitted an impressive tender document in response to REAL's invitation for tenders and following an interview at REAL's offices in November 2019, REAL took the decision to offer NNFCC the contract, which has been accepted. We look forward to working with NNFCC on this project in the coming months.

Research Hub Project Proposal Submission Period

REAL ran a call for research proposals from 24 January to 4 March 2020, where scheme participants and industry stakeholders were invited to submit a research proposal which could influence the work of the Hub.

The fourth meeting of the Research Panel took place on 17 March, where all submitted research proposals were assessed against an Evaluation Matrix. Detailed discussions took place surrounding each project and after careful consideration, Panel members put forward a score for all Research Project Proposals submitted. The Panel shortlisted three project proposals to progress to the second phase of evaluation.

Please note, a decision has been taken that Research Project Proposals can only be submitted to the Hub within designated 'call periods'. We will ensure to provide enough notice for call periods, so that operators and wider industry stakeholders alike will have ample time to gather and prepare their ideas for project proposals.

Depackagers unpacked

Organics Recycling & Biogas brings the latest in depackaging equipment for food waste, including what to look out for when making a purchase

For AD and composting operators, depackaging equipment is probably one of the most important pieces of kit in the entire operation. Failure to remove food packaging and plastic bags from organic feedstocks runs the risk of significant levels of contamination, issues with the digester equipment and a lower-quality product at the end of the process. These issues have the potential to greatly increase costs for operators.

Unremoved packaging can form a floating layer in wet AD systems, which can lead to blockages, while broken glass can sink to the bottom and damage transfer systems. Meanwhile, visible amounts of plastic in digestate and compost can lead to failure to comply with PAS standards, with fine-screening to remove plastics a costly additional step.

Depackagers work by loading organic waste and its packaging into a machine, which then separates the organic waste from its packaging using a process of crushing, shredding, separation and screening. Water is added to make a slurry which is then kept to be added to an anaerobic digester, while the packaging is removed and sent off for disposal.

When looking at which depackaging equipment to purchase, operators need to take into consideration four principal issues: versatility, speed, removal of contaminants and reliability.

Depackagers need to be ready for any waste that comes through the chute, from paper and card to glass. Glass can pose a particular issue as once crushed it can cause abrasion and damage to the machine, so a depackager that can deal with a variety of waste is a must.

Speed is also essential in order to reduce waiting times for trucks delivering organic waste and reduce haulage costs for customers. Speed also has an impact on odour – the faster feedstocks are processed, the less chance there is of backlogs of odorous feedstock in the delivery area.

A depackaging machine must also be able to remove contaminants effectively. Depackaging machines should be aiming for below one per cent contamination, and higher than that will incur additional costs for operators, both in terms of disposal and the damage to the final product, which could result in loss of income. Poor quality product also risks operators running afoul of Environment Agency regulations.

Reliability and repairability is also crucial to any purchase of a depackaging machine. Simplicity is key here and operators should consider robustness over complexity and a machine that is easy to fix on site and produces quality product.

Given the importance of depackaging equipment in the quality processing of organic waste, quality is most definitely worth the cost.

GEMIDAN

ECOGI pre-treatment technology from Gemidan offers unrivalled high-performance processing of food waste feedstock in order to produce a superior quality substrate for a range of AD operators.

ECOGI technology provides:

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- High capture rate and treatment of organic content to maximise biogas production; and
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ECOGI is a Danish-designed technology built to provide effective and reliable pre-treatment of the most challenging feedstocks. Throughout the six years of commercial-scale development the performance of ECOGI has been comprehensively and independently tested.

Gemidan contractually guarantees all the independently-verified performance outcomes listed on its website.

ECOGI provides solutions to:

- Increase the range/contamination content of feedstocks processed;
- Solve the problem of physical contamination in digestate to improve sales and generate additional revenues; and
- Reduce wear on key digester components and the build-up of non-organic materials within the digester itself.

Your ECOGI installation will be a bespoke design, manufactured to Gemidan's stringent standards and have a maintenance support package specified by you.

For more information, contact Tony Pickess below:

W www.ecogi.dk
E tony@gemidan.dk
M +44 (0) 771 898 2610

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The Bag Opener BRT HARTNER BOS is a machine that has been specifically designed by Eggersmann for the organic waste sector.
Just as it is the case with all bag openers of the BRT HARTNER brand, the BOS does not shred the material, taking a different approach to protect the quality of feedstock.After opening and emptying out the plastic bags and sacks, the pieces of film are large enough to be screened out in the subsequent treatment process.

The Bag Opener BOS is very compact. The material can be fed directly into the integrated chute. This is especially convenient in case of a retrofit of existing plants.

Low maintenance and cleaning costs play an increasingly significant role in treatment and sorting plants. The Bag Opener BOS is characterized by its extremely sturdy and wear-resistant design. The ripping drum has a self-cleaning reversing function. Furthermore, the ripping tools are coated with a special and extremely long-lasting finishing coat. These features significantly reduce the maintenance requirements of the Bag Opener BRT HARTNER BOS.

Contact Richard Mawson, Business Development Director, using the details below:

W www.eggersmann-recyclingtechnology.com
E rmawson@eggersmannuk.co.uk
T +44 (0) 1743 343 400

ATRITOR

Originally designed in 1994 to depackage food stuffs, the Turbo Separator has evolved over the years to become the AD industry workhorse for recovering packaged food content for waste-to-energy applications with over 250 systems supplied. Its design, durability, and strength combine to give a one-step process to remove valuable organic food waste from its packaging with up to 99 percent efficiency for biomethane production.

Avoiding shredding or damage to the packaging any more than necessary means that plastics are kept out of the tanks, resulting in a cleaner organics fraction. The efficiency of the separation means that secondary processing is not required, reducing energy consumption. The Turbo Separator can operate as a stand-alone wet or dry system; water or other liquid can be added during or after the separation process as required.

The Atritor Turbo Separator model range gives a choice of throughput performance to suit different sizes of application from 3-20 tonnes per hour of mixed packaged food waste. Turbo Separator customers are located at sites right across the world, including in Europe, North and South America, Australia, and Africa. The high-quality system provides adaptability and ease of operation with its unique design for low and easy maintenance and a series of quickly interchangeable screens and paddles.

Contact:

W www.turboseparator.co.uk
E mhulme@atritor.com
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To remove the packaging in the feedstock, the Dominator machine uses adjustable paddles along a solid steel shaft to break open packaging and force organic material through a mesh screen. The machine has been sold throughout the world for a wide range of depackaging requirements including organic material, pharmaceutical and gypsum.

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For more information contact Director Matt Rowan on the below contact details:

W www.dominator-depackaging.com
E matt@rowanfood and biomass.com
T 01242 222913

REA Biogas steering group

William Mezzullo looks back on AD's rapid growth and what lies ahead in the next 10 years

William Mezzullo, REA Biogas steering group chair

The UK green gas sector has achieved strong growth over the past 10 years. As it looks ahead to the next 10 years and beyond, it's positive to see that this sector is still considered to be one of the most important for the government as it seeks to decarbonise the not-so-easy energy sectors such as heat and transport.

The industry has achieved the roll out of just under 600 AD plants over the last decade, including nearly 100 biomethane green gas-to-grid plants. Turning organic matter into a renewable green gas has been a real success story for both UK industry and government, and we can see the continued support from government following the Chancellor's Budget Statement on 11 March to introduce a Green Gas Levy to help fund more biomethane. As the UK has been the first major economy to legislate for a target of net-zero greenhouse gas emissions by 2050, it recognises that the increased use of clean energy such as green gas will be vital.

The REA has been working tirelessly with BEIS during this period to ensure the right policies are put in place to help industry contribute towards this ambitious target and increhase the roll out of green gas. Notwithstanding the recent COVID-19 restrictions to our movements, the REA Biogas group has been very active in virtual meetings and discussions as we prepare for BEIS' consultation response on the new Green Gas Support Scheme (GGSS) and the Renewable Heat Incentive (RHI) scheme.

The timing of these green gas policy ambitions are well aligned with other critical government decisions around the Agricultural Bill, Environmental Land Management (ELMs) and the mandating of separate food waste collections by 2023. It's rare that so many policy changes affecting the biogas industry all happen at the same time! It's also good to see joined-up government thinking in this sector and recognising that there is a proven track record of converting food waste into renewable gas whilst also returning nutrients back to soil. The biogas sector has shown that with the right policy mechanisms in place it can help achieve the policy objectives of several government targets and aspirations.

As we continue to work through this exciting, but pivotal period for the industry, the REA Biogas group is continuing to work closely with its members to make sure our voice is heard and that we get the policy outcomes that the industry needs to keep growing.

REA Biogas steering group members

Mark Richmond, Technical Director, WRM

Paul Thompson, Regulatory Compliance Manager, Solar 21

Jørgen Fink, Country Manager, Nature Energy Biogas

Chris Negus, Business Development Manager, Privilege Finance

Neil Liddell-Young, Strategy and Development Director, Severn Trent Green Power

John Baldwin, Managing Director, CNG Services Ltd

Glenn Carney, Sales Director, Greenlane Biogas Ltd

Philipp Lukas, Managing Director, Future Biogas Ltd

Andrew Winship, Business Development Manager, Air Liquide's Biogas Solutions Europe

Alison Cartwright, Project Manager, Future Biogas

Ruby Jones, Director, Qila Energy

David Kinnersley, Head of Agribusiness, Fisher German

Henry Haworth, Renewables Consultant, J H Walter

Duncan Carter, Corporate Affairs Manager,Calor Gas

REA Organics steering group

With the COVID-19 pandemic having buffeted the organics recycling sector, **Charlie Trousdell** looks at what changes are needed going forward to shore up the sector

Charlie Trousdell,
Chair of REA Organics steering group

The REA Organics steering group has certainly had some challenges looking at the impact of COVID-19 on our sector – nothing like a baptism of fire for our three new members!

The steering group's role is to provide direction and support for the relevant REA staff and to try and ensure staff can deliver what the organics sector needs. The key for us all in the sector, whether OWC, IVC or AD, is ensuring we have long-term sustainable outlets for high-quality organic products.

One clear issue made clear by the crisis has been that green waste is currently classed as non-essential, which led to a massive reduction in green waste getting to members' sites.

Commercial and industrial food waste has more or less vanished, with reports of a more than 70 per cent reduction in food waste collections.

There has been an increase in food waste from domestic sources (where collected), where it's now around 1.7 kilogrammes (kg) per household per week, compared to 1.5kg pre-COVID.

Happily, there appears to be far less 'avoidable' food waste, such as whole loaves, meat and fish, and more unavoidable food wastes such as peelings, pointing to some positive behaviour change. A consequence of this change in food waste type is a reduction in gas yields on a per-tonne basis.

In a world facing a climate emergency, this all highlights the need to do things differently and encourage a genuinely green recovery.

UK households generate around six million tonnes of green waste per annum, but just two million tonnes of food waste.

Green waste should be defined as essential and collected at kerbside with one free bin and charges levied on additional bins.

This would encourage people with large gardens to home compost or pay for extra waste collection.

In the event of future lockdowns, having a kerbside collection could help keep green waste flowing to proper outlets, after all, do we want large numbers of people driving to household waste recycling centres with their green waste?

Green waste can also generate gas for the UK's power grid. Six million tonnes would generate at least 5.5 terawatt hours of biomethane, which, combined with existing food waste processed at AD sites, would make a significant contribution to greening the economy.

The primary focus should be on producing quality organic products with gas generation, a key secondary benefit.

Ultimately, we need to reduce food waste to the absolute minimum and then ensure we collect, process and distribute all organic wastes in as energy-efficient manner as possible.

The future must be greener!

REA Organics steering group members

Andy Sibley, Managing Director, Envar

James Astor, Chairman, Regen Holdings Ltd

Ralph Lodge, Technical Director, Enva Resource Management

Ben Brown, Director, WRM

Graeme Kennett, Senior Consultant, 360 Environmental Ltd.

Tony Breton, Market Specialist - UK & Ireland, Novamont

Robert Benford, Partner, G K Benford & Co

Robert Moody, Managing Director, Jack Moody Group

Justin Dampney, COO, Eco Sustainable Solutions

Stuart Hayward-Higham, Technical Development Director, SUEZ recycling and recovery UK

Georgia Budden, Waste Management Consultant, Vegware

Paul Whyatt, Technical Director, 4R Group

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