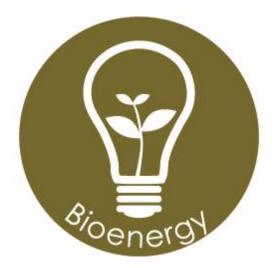


YOUR PARTNERS FOR BUSINESS INSIGHT AND MARKET INTELLIGENCE

Providing clients with a strategic view of feedstock, technology, policy, and market opportunity across the bioeconomy

News Review





Issue Seventy-Six

July 2018

Each month we review the latest news and select key announcements and commentary from across the bioenergy sector.

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Foreword

Hello, and welcome to July's scorching hot issue of NNFCC's Bioenergy News Review.

The recent hot and dry weather in the UK (I won't say "good" weather, as there are some who would disagree!), has obviously been excellent for solar generation, but not so good for wind (we reported last month that the calm conditions saw bioenergy's renewables contribution increase as wind's decreased). Obviously, the key advantage of bioenergy over other renewables is its ability to generate regardless of conditions, and this will continue until energy storage technology becomes more available and viable. With this in mind, there is an interesting announcement from Ofgem this month: they have published guidance relating to energy storage use in the Renewables Obligation and Feed-In Tariff schemes. Ostensibly, these schemes exist to incentivise and reward generation, and contribution to the grid. However, there is no explicit clause in either scheme forbidding the installation of storage technology at accredited sites - indeed, the technology is never mentioned at all. Ofgem has clarified that installing storage technology will not jeopardise a plant's accreditation, provided said technology complies with the newly published guidance. This step from Ofgem acknowledges that energy storage will be very important in future, particularly if the energy picture is to shift in favour of more seasonal renewables such as solar and wind. That is not to say bioenergy cannot benefit from this legislation too: storage technology could be employed during periods of lower energy demand, allowing bioenergy plants to continue running at full capacity in these periods.

Next, there is less heartening news from the UK Energy Institute: in their latest Barometer Report, they have found that increasing numbers of energy professionals in the UK are sceptical of the UK's chances of achieving its emissions targets for 2032. Despite the fact that the UK is set to exceed its targets for 2020, a greater proportion of energy professionals than those surveyed last year believe this will continue. The key reasons cited are increased political uncertainty, particularly with the advent of Brexit, as well as uncertainty around the skilled workforce required to implement energy changes.

In more light-hearted news, this month we have an announcement from Ecotricity who have begun supplying the UK's first "vegan" electricity. This electricity is generated entirely from sources that do not involve animals or animal products, thus removing any potential qualms consumers may have about animal welfare in their energy generation. Animal products such as manure are regularly used as feedstock for anaerobic digestion, and there is no guarantee that they are ethically produced, and so Ecotricity's announcement will likely be welcomed by more discerning consumers.

Read on for the latest news.

Policy

UK Government launches FiT consultation



Geograph

The Feed-In Tariffs (FITs) Scheme is the government's subsidy scheme for generation of renewable electricity from small-scale low-carbon installations.

A Consultation was published by BEIS on 19th July 2018 setting out a proposal to close the export tariff alongside the generation tariff on 31 March 2019, which would mean full closure of the FITs scheme to new applications after 31 March 2019.

In parallel, government also released a Call for Evidence that seeks to identify the challenges and opportunities from small-scale low-carbon electricity generation in contributing to government's objectives for clean, affordable, secure and flexible power; and the role for government and the private sector in overcoming these challenges and realising these opportunities.

The call for evidence is aimed at individuals and groups with any interest in the small scale low carbon industry. In particular BEIS are seeking views from affected individuals, energy suppliers, and industry, including manufacturers suppliers and installers.

Click here for more information.

Ofgem publishes guidance for energy storage under renewable schemes

The UK energy system is transitioning from a model of large centralised generation and transmission, to a smarter, more flexible and more decentralised system. This is changing the way that energy is generated, distributed and consumed. As part of this, the sector is increasingly considering the role of energy storage.

The legislation underpinning the RO and FIT schemes does not refer to or define storage or storage facilities. This means that the co-location of storage with accredited renewable generation is neither expressly prohibited nor expressly provided for under the schemes. However, Ofgem considers that where the requirements of the schemes continue to be met, storage can be deployed and the accreditation of RO generating stations or FIT installations can remain valid under the existing legislative framework.

In support of this, Ofgem have published 'version 1' of guidance for Renewables Obligation (RO) and Feed-in Tariff (FiT) sites installing energy storage at their locations. The new guidance is intended to provide clarity on how to install energy storage devices at these sites without losing accreditation. This is important as such colocated projects should make up large amounts of future storage capacity.

California calls for biomass to be included in Renewable Fuel Standard



Pixabay

Biomass magazine reports that US lawmakers in California are calling on the US EPA to resolve any issues that prevent biomass and waste-to-energy pathways from receiving the same level of support as other forms of energy under the Renewable Fuel Standard.

As users of low-value wood fibres, biomass power facilities are an important component of forest management, enabling the productive and environmentally sound use of debris cleared out of forests to reduce forest fire risk. California is currently experiencing an unprecedented tree mortality crisis increasing the fire risk.

The lobbying lawmakers cite federal support for other renewables like wind and solar as causing market distortions. California has enacted the BioRAM policy requiring utilities to purchase a certain amount of biomass power, which has been helpful, but EPA action approving the qualification of biomass power under the RFS is sorely needed to keep biomass power facilities online and contributing to ongoing forest management and fire prevention efforts.

Click here for more information.

Markets

Bioenergy contributes 20% of UK renewables in Q2

Renewable power plants were responsible for 28.1% of UK's total power in the second quarter of 2018, shows data by energy information provider EnAppSys.

Renewables outstripped generation from coal and nuclear power plants combined thanks to favourable weather conditions leading to an increase in wind and solar power output. Coal plants generated just 0.9 TWh for a 1% share of the generation in the quarter, and nuclear power reached 15.5 TWh, or 23%. Gas-fired plants accounted for 41% with 28 TWh produced.

Renewables generated 19.35 TWh in the April-June quarter, down from 21.54 TWh in the previous quarter, but up considerably from the 17.4 TWh produced in the year-ago period. The main renewable energy source in the country is wind, growing to 9.5 TWh from 9.35 TWh a year back, and accounted for 14% of the country's overall power output. New offshore capacity additions in the past 18 months, including the 258-MW Burbo Bank extension, 573-MW Race Bank and 400-MW Rampion, helped a lot, EnAppSys said.

As for solar, the quarterly output was 5.24 TWh, rising from 4.05 TWh a year before, due to long daylight periods and reduced cloud cover.

Meanwhile, biomass plants contributed 20.8% to the total renewables output, producing 4.02 TWh. Hydropower accounted for 2.9% with 0.56 TWh produced.

Renewables beginning to shake European energy market

The rise in renewables impacts on other commodities providing marginal balancing capacity. The shift from less coal to more renewables has placed more significance on gas supplies from Europe and globally to counter intermittency and the decline in baseline coal.

New Stream Energy reports that fears over European outages, Russian sabre rattling and increased global LNG demand have pushed UK gas prices higher leading to continued support for the UK power price, which has peaked dramatically in recent months of low wind generation.

Germany's renewable output exceeded coal for the first half of 2018. This comes as debates within Europe on how best to phase out coal generation continue. According to data released by the German Association of Energy and Water Industries (BDEW), wind, solar, hydropower and biogas met 36.3% of Germany's electricity needs between January and June 2018, while coal provided just 35.1%. Although renewables have hit notable benchmarks in the past, outstripping fossil fuels on certain days or even weeks, this is the first-time coal has fallen by the wayside during such a long period of time in Germany.

The UK government has been advised by the National Infrastructure Committee that it should aim for a minimum of 50% power to come from renewable generation by 2030 up from 30% now. Additionally, they recommend that taxpayers should only support one more nuclear power station before 2025. This advice is a blow to companies such a Hitachi Ltd and EDF who are looking to invest in large nuclear projects within the UK.

Click here for more information.

Short term forecast suggests slight drop in US biomass, but increase in EfW



Wikimedia Commons

US total renewables consumption is forecast to grow over the next couple of years, according to EIA figures. While total consumption was 11.016 quadrillion (British Thermal Units) in 2017 (up from 10.256 quadrillion BTU in 2016), it is expected to reach 11.383 quadrillion BTU by the end of this year, and 11.666 quadrillion BTU by the end of next.

According to the figures, solar and wind have seen the most consistent growth in consumption since 2016. Solar has risen from 0.569 quadrillion BTU in 2016, to a forecast 1.096 quadrillion BTU in 2019. Wind meanwhile, has risen from 2.113 quadrillion BTU to 2.640 quadrillion BTU.

Wood biomass remains the biggest contributor to the US energy consumption after wind and solar. However, following steady growth in consumption from 2016 to 2018, a slight drop-off is expected between 2018 and 2019, from 2.177 quadrillion BTU to 2.166 quadrillion BTU.

Following a brief dip in 2017 meanwhile, waste biomass consumption is forecast to grow from 0.482 quadrillion BTU in 2017 to 0.667 quadrillion BTU in 2019.

New Hampshire biomass plants stop generating after support withdrawal

Gov. Chris Sununu's veto of a bill to subsidize six biomass plants in New Hampshire in the US has led to a decision by the owner of two of them to stop buying wood chips.

Pinetree Power plants in Bethlehem and Tamworth stopped buying the wood chips from loggers on June 22. Their owner, ENGIE North America, said in letters they're unlikely to continue operating through the summer.

Last month, Sununu vetoed a bill that would have mandated that the state's utilities contract with the biomass plants and buy energy at 80 percent of the default energy rate. The Republican governor called it an unfair subsidy that would raise electricity prices for ratepayers to benefit a few.

A surge in natural gas has lowered energy prices and rendered the operations of wood-fuelled power plants uncompetitive for much of the year.

A third biomass power company has made plans to temporarily wind down operations. Bridgewater Power Plant in Ashland, N.H., joins the two other plants in the state that have stopped buying wood chips from local suppliers and are planning to burn through their stockpile in the coming weeks.

Click here for more information.

Centrica acquires 50% stake in Barrow Green Gas

BARROW GREEN GAS 🕼

Barrow Green Gas

Centrica plc's Energy Marketing & Trading business has agreed to acquire a 50% stake in Barrow Green Gas, the UK's largest biomethane supplier.

BGG is the only gas business in Great Britain focused solely on the green gas market, shipping almost half of the green gas used by British homes and businesses. Established in 2012, the company supports biomethane producers by facilitating the supply of biomethane to gas buyers, and provides Green Gas Certificates (GGCs) to energy suppliers.

The new partnership will give Centrica access to leading expertise in the biomethane market and strengthen its ability to offer customers a wider choice of renewable energy products. The deal will also provide growth opportunities for BGG to access Centrica's capabilities in international markets, market information and tools.

Research & Development

Modelling future bioenergy and carbon capture



Wikimedia Commons

Biomass Energy with Carbon Capture and Storage (BECCS) has become a much relied upon solution when planning scenarios to meet the Paris Agreement of 2015, a global commitment to limit the global temperature increase to 2C, and preferably 1.5C, higher than the pre-industrial level.

The paper, "Evaluating the use of biomass energy with carbon capture and storage in low emission scenarios", explores the use of BECCS technologies in scenarios generated by an integrated assessment model (IMAGE). Researchers investigated the feasibility of key implicit and explicit assumptions in the scenarios about these BECCS technologies, including biomass resource, land use, CO2 storage capacity and carbon capture and storage (CCS) deployment rate.

In summary, the paper found that the modelled scenarios include the following in relation to the large-scale use of BECCS: half of all global CO2 storage required by 2100 occurs in USA, Western Europe, China and India at levels compatible with current estimates of regional CO2 storage capacity; CCS deployment rates in the scenarios are very challenging compared to historical rates of fossil, renewable or nuclear technologies and are entirely dependent on stringent policy action to incentivise CCS; half of the biomass resource is derived from agricultural and forestry residues and half from dedicated bioenergy crops grown on abandoned agricultural land and expansion into grasslands (i.e. land for forests and food production is protected); only one-third of the bioenergy crops are grown in regions associated with more developed governance frameworks.

Click here for more information.

Energy professionals uncertain about UK reaching future carbon targets

The UK Energy Institute released its latest annual Barometer Report on industry views on the UK energy industry.

The challenges the energy industry faces are diverse, but it is policy uncertainty that continues to raise the greatest unease among professionals. While UK energy policy is seen to have had a positive impact in some areas – on renewable electricity, low carbon transport and innovation – it is seen as volatile and short-term focused.

Although the UK is expected to outdo the carbon reductions required during the first fifteen years of the Climate Change Act, the forward picture is much less rosy. The Barometer finds energy professionals now less confident than they were a year ago that the UK will deliver on its targets through to 2032, despite the Government having brought forward its Clean Growth Strategy designed to do so. Indeed 5 times as many Barometer respondents expect us to fall short of the target than expect us to meet it. Policy shortcomings are exacerbated by unprecedented political risk, notably in the form of Brexit, the fog of uncertainty around skilled workforce availability and around our future relationship with the EU's single energy market has not lifted.

This all translates to high perceived levels of investment risk – especially felt in the more capital intensive and often less well-proven sectors (such as carbon capture, tidal power, hydrogen and nuclear), which could still play a key role in our future energy mix given the right enabling policies and technology development. But amid these concerns, the Barometer also finds opportunities for the taking. Lower investment risk is perceived in offshore wind and solar, signalling that economic rewards are still seen in the power sector. The lowest investment risk and greatest decarbonisation potential, however, is still seen to lie in energy efficiency.

The Barometer finds energy professionals confident that major changes in transport are closer than many have suggested. They expect half of vehicles on the road to be low carbon, even before the Government's proposed 2040 ban on new petrol and diesel engines takes effect.

Click here for more information.

Multi-million investment in Irish bioenergy development

Science Foundation Ireland's Centre for Marine and Renewable Energy has secured an additional €4.4m to develop Ireland's biomass and bioenergy industries.

The funding has been made under the Sustainable Energy and Fuel Efficiency SFI Spokes programme.

The programme of work will also include the technical and commercial expertise of 10 national and international companies.

The four-year collaborative programme aims to identify viable routes to increase the efficient utilisation and supply of sustainable energy, and to support Ireland's ambition to meet national and EU environmental targets.

The technologies to be advanced by the SEFE Spoke will address some of the drawbacks associated with Ireland's reliance on imported biofuels and intermittent renewables by improving the efficiency and reducing the carbon intensity of power generation and transport from combustion.

It will also do so by boosting the supply of renewable heat, which makes up 41pc of Ireland's energy consumption, as well as meeting sustainable waste management challenges.

SFI's support of the SEFE spokes project comes at a time when the need for new and innovative means to tackle climate change are sorely needed.



Geograph

Biomass Heat and Power

US biomass capacity up 50MW



Geograph

The Federal Energy Regulatory Commission's Office of Energy Projects has released its Energy Infrastructure Update for May, reporting that the U.S. added 50 MW of biomass power capacity during the month.

The report shows the U.S. added six biomass units with a combined 50 MW of capacity in May. Since the beginning of the year, the U.S. has added 11 biomass units with a combined 66 MW of capacity.

Overall, the U.S. added 274 power generation units with a combined 10,732 MW of capacity during the first five months of 2018. This includes 36 natural gas units with a combined 6,646 MW, one nuclear unit with 4 MW, seven oil units with a combined 11 MW, eight hydro units with a combined 22 MW, 18 wind units with a combined 1,956 units, two geothermal steam units with a combined 21 MW, 181 solar units with a combined 1,921 MW, two waste heat units with a combined 80 WM, and eight units classified as "other" with a combined 5 MW. No coal units were placed into service during the first five months of the year.

As of the end of May, the FERC reports that the U.S. has a total of 16.52 GW of installed biomass generating capacity, accounting for 1.39 percent of total capacity.

The report currently lists 60 units with a combined 705 MW of proposed biomass generation capacity additions that could be added in the U.S. through 2021. Over the same time period, 19 units with a combined 50 MW of biomass power capacity have been proposed for retirement.

Click here for more information.

Cardiff set for biomass-powered business park

A business park with 130,000sq ft of industrial space powered by a 9.5MW biomass power plant is poised for the green light after council officers recommended it for approval. The biomass plant would consume up to 75,000 tonnes of wood each year with the industrial space creating up to 30 jobs.

The plant will burn virgin timber, which will be transported to the site by road or rail from either Liverpool docks or Felixstowe, having been shipped from overseas, possibly Latvia. The application comes from Geraint John Planning on behalf of Parc Calon Gwyrdd.

The proposed development is for a circa 9.5 MW combined heat and power station which will produce electricity and thermal energy via steam. The fuel source for the power station will be biomass, which is a sustainable fuel, will be delivered either via the adjacent Cardiff Docks or sourced from established UK distributors or a combination of both.

60MW cocoa biomass plant for Cote d'Ivoire



Pixabay

The world's top cocoa producer Côte d'Ivoire plans to build a 60-70 MW capacity biomass power generation plant running on waste from cocoa pods, part of its aim of developing 424 MW of biomass power generation capacity by 2030.

The plant, which will enable Côte d'Ivoire to diversify its electricity generation sources, was among five projects to receive grants from the US agency for trade and development (USTDA), the US embassy in Abidjan said in statement on Monday.

The biomass power station, the first in Côte d'Ivoire, would be based in the southern cocoa region of Divo. The USTDA has earmarked \$996 thousand for feasibility studies.

Although Côte d'Ivoire produces around twomillion tonnes of cocoa annually, thousands of tonnes of pods are discarded after the beans are removed. They are left to rot or burned after the harvest.

Unlike many countries in sub-Saharan Africa, Côte d'Ivoire has a reliable power supply. It exports electricity to neighbours Ghana, Burkina Faso, Benin, Togo and Mali, and plans to extend its grid to Liberia, Guinea and Sierra Leone this year.

But with domestic consumption rising by about 10% a year, the government is under pressure to

boost supply at home and aims to increase installed capacity to 4 000 MW by 2020, from the current 2 275 MW

Click <u>here</u> for more information.

Waitrose to sell miscanthus BBQ briquettes

Four cities in the UK will launch eco-friendly 100% Natural Miscanthus Briquettes and Firestarters in Waitrose.

These innovative BBQ Briquettes and Firestarters are made from locally grown Miscanthus, a perennial energy crop which burns cleaner, hotter and longer than other BBQ products. The range is all natural, has a high density and a low moisture content of 8%.

Hailed as a 'wonder crop', Miscanthus grass reaches over four-metres tall and it's grown by British farmers. It absorbs more carbon than it releases in its 20-year + lifetime and stores it in the earth, which helps to alleviate CO2 pollution and reduces the effects of climate change.

Miscanthus produces a crop each year, without the need for replanting and it doesn't require any fertiliser or pesticides. It thrives even on the poorest land and enhances biodiversity and soil health, making the BBQ Miscanthus Briquettes the most renewable and sustainable fuel available.

Terravesta works with over 300 British Miscanthus farmers, to grow and harvest Miscanthus each spring. The crop has many sustainable uses, from generating heat and power for homes in largescale power plants, bio-based plastics, natural fibre for building materials, land remediation and high-quality animal bedding.

Biogas

"Vegan" electricity



Geograph

In over half of Britain's homes, millions of ethical consumers – the growing legion of vegans, vegetarians and those concerned with animal rights - are unknowingly powering their lives with electricity and gas made using the by-products of the meat and dairy industries, including animal body parts.

Renewable energy pioneers Ecotricity are highlighting this secret ingredient in the nation's power supply and launching a vegan version - the world's first Vegan electricity.

Euphemistically described by one of the Big Six energy companies as "recycling" – the practice of using animal by-products and even dead animals to make electricity and gas in Britain is widespread, not just among the Big Six, but among smaller and even 'green' suppliers too. It's a relatively well-kept secret, typically disclosed only in regulatory materials.

Late last year Big Six supplier SSE admitted it used dead salmon from factory fish farms in Scotland to generate some of its power, while a media expose showed that small green supplier Good Energy generated some of its 'ethical green energy' using pig slurry from a factory farm at the centre of animal cruelty allegations. Bulb, another small company claiming green credentials, supplies 'green gas' from the same type of source material.

Ecotricity has a longstanding policy of refusing to buy electricity or gas from animal related sources – and has now backed this up with Vegan Society registration for its electricity, with gas to follow.

Click here for more information.

Foresight Group acquires five more AD plants

Foresight Group, a leading infrastructure and private equity investment manager has acquired 100% of the shares in a portfolio of five operational anaerobic digestion plants from Lindhorst Gruppe, a family-owned group of companies.

The acquisition signals Foresight's appetite for bioenergy and wider renewable energy assets in the German market.

In total the plants export 17MWe - equivalent of electricity and biomethane and in addition sell heat and certified biofertiliser, whilst benefiting from the German EEG renewable subsidy.

With this acquisition, Foresight strengthens its renewable energy portfolio to 20 AD plants in the UK and Germany, generating 154 MW of clean renewable energy.

Energy from Waste

EfW plant boosts local economy



Geograph

UK recycling and renewable energy company Viridor has spent £5.3 million so far with local businesses within 30 miles of the £252 million Resource Recovery Centre in Avonmouth.

The Taunton-based company has been working with local contractors including PMS, GAP Hire Solutions, Hanson and B&A on the construction of the Avonmouth centre which will use environmentally sustainable technology to divert 320,000 tonnes of non-recyclable waste away from landfill.

In line with Viridor and its construction partners commitment to supporting the local economy, some of the suppliers were sourced directly from Viridor's 'Meet the Buyer' event in Bristol last July, attended by more than 30 companies interested in being involved.

Construction on site started in summer 2017 and, when operational, the facility will be able to convert 320,000 tonnes of non-hazardous

industrial waste which would otherwise go to landfill each year into renewable energy.

When operational Viridor will generate around 34MW of low carbon energy, enough electrical power to supply 44,000 homes, the equivalent of a population larger than the city of Bath.

A third of the available capacity of this new facility will be being taken up from Somerset County Council by diverting waste which is currently transported to three landfill sites.

Hallen-based B&A Group are supplying more than 200,000 tonnes of recycled aggregates to help build the facility, with its highly experienced transport team ensuring the project runs as smoothly as possible.

Construction works on site are progressing well, with the bunker walls approaching 20 metres in height and the steelwork to support the boiler currently being erected. Over the summer months the process equipment will start to arrive and be lifted into place.

Click here for more information.

Constructors make losses on Energy from Waste plants

UK contractor Sir Robert McAlpine has announced a £23m pre-tax loss in the year to 31 October 2017, after problems on three energy projects.

McAlpine made "considerable" losses on the contracts, for which it had to set aside £37m worth of exceptional items in its annual accounts, filed at Companies House, reports Construction Manager.

The main issues were with the energy-from-waste sector, which McAlpine is now abandoning – following the same path as services specialist Interserve, which announced a £244m loss in April partly as a result of energy-from-waste, and US firm Air Products, which racked up a \$1bn loss in the sector.

In the case of Air Products, the issues were around commissioning of gasification technologies and rising costs.

The announcements follow what has been termed the biggest financial crisis in 30 years for the construction sector as subcontractors face possible non-payment by struggling major contractors such as Interserve and following the Carillion collapse. Interserve has been struggling under a number of problematic energy form waste jobs.

Click <u>here</u> for more information.

Events

Biomass for Industrial Applications Amsterdam, 26th-27th September 2018

The VDI conference Biomass for Industrial Applications focuses on the industrial utilization of biomass. The presentations consider both the energy-related as well as the material usage of biomass. Discuss the newest technical, economic and political developments in the industry with leading experts and find out what's in store for the biomass market in the future. This knowledge will help you to make the right strategic decisions for your company and to clear the way of implementation barriers.

Click <u>here</u> for more information.

International Biogas Congress & Expo Berlin, 10th-11th October 2018

Brought to you by Bioenergy Insight, the leading biogas industry publication, this two day conference will bring together leading producers, stakeholders and companies within the biogas sector.

Expert international speakers will address a range of biogas related issues and topics within Europe and beyond. Co-located with the International Biomass Congress & Expo as well as the renowned Biofuels International Conference and Expo, this series of bio events will be our largest gathering yet of bio related companies, giving participants unrivalled coverage.

Click here for more information.

International Biomass Congress & Expo Berlin, 10th-11th October 2018

The International Biomass Congress & Expo aims to bring together leading producers, suppliers, regulators and other engaged organisations over a two day period. High-level speakers, experts in their field, will address a range of topical issues relating to the biomass sector.

Brought to you by Bioenergy Insight, the leading international biomass magazine, this year's conference will be co-located with the International Biogas Congress & Expo as well as the renowned Biofuels International Conference and Expo, making this series of bio events our largest gathering yet of bio related companies, giving participants unrivalled coverage.

EFIB 2018 Toulouse, 16th-18th October 2018

Join over 650 bio-based leaders in 2018 for the 11th edition of EFIB in Toulouse, France, on the 16th, 17thand 18th of October.

Click <u>here</u> for more information.

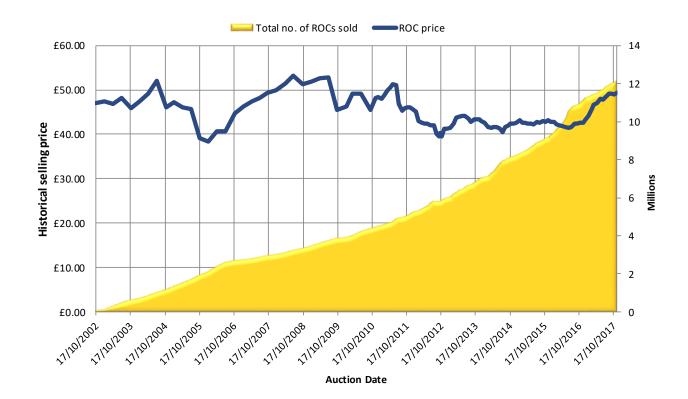
Agrocycle Mission to China Beijing, 22nd-26th October 2018

The Agricultural waste and residue management for a circular bio-economy event will be held in China from the 22nd to the 26th of October 2018 and will bring together stakeholders from industries, research, public bodies, educators and policy-makers from China and Europe.

The programme of the event includes 2 days of plenary conferences in Beijing (22-23 October) and three days of workshops, brokerage meetings and on-the-field visits (24-25-26 October).

Prices

Historical auctioned prices of ROCs in sterling pounds, and total amounts of ROCs historically sold.



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