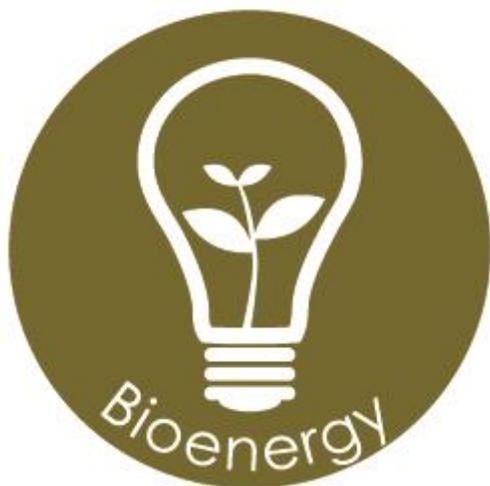


News Review



Issue Seventy-Three

April 2018

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

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Foreword

Welcome, all readers, to April's free edition of NNFCC's Bioenergy News Review.

We begin with plenty of positive market news. Over recent weeks, generation and capacity statistics have been released for several areas and technologies, all of them being good news for bioenergy.

Staying close to home at first, this month NNFCC published our fifth annual [*Anaerobic Digestion Deployment in the UK*](#) report. This contains information on AD plants, capacity and feedstocks at both the regional and national level. Despite a difficult year for AD both economically and politically, the sector has still managed to grow in the UK over the course of 2017, with plenty of promise for the future.

Data released by the International Renewable Energy Agency have indicated a 5GW increase in global bioenergy capacity over the course of 2017. Global bioenergy capacity now sits at 109GW. This makes up approximately 5% of total renewables capacity worldwide, which indicates just how much further there is for bioenergy to grow as a sector. The 2017 charge was led by Asia, as China in particular continues its push to decarbonise its energy generation. In the UK, bioenergy capacity grew by 241MW, mostly fuelled by biomass, to its highest ever level. In terms of generation, 2017 saw a 6% increase on the previous year, as bioenergy formed 32% of the UK's renewable electricity collage.

In more specific bioenergy sector news, there are reports from Europe that suggest that AD has a very promising future. A report from French gas company GRTgaz has revealed how biomethane injection has nearly doubled in France over the course of 2017. This surge has come thanks to approximately 100 new biomethane plants being commissioned, providing an additional 3 billion kWh of biomethane per year, and bringing France's total biomethane injection up to 8 billion kWh per year.

This promising news for European AD comes alongside a market report from Global Market Insights, whose authors have forecast a massive surge in Europe's AD market, forecasting that by 2024 AD will be worth over 8 billion USD. In order for this forecast to come true, it will require significant commitment from the sector, but it is heartening to see AD acknowledged not just for its success as a renewable energy technology, but also for its economic viability.

Read on for the latest news.

Policy

Pressure on UK government to decarbonise heat sector

The UK's largest energy trade body, Energy UK, has urged the government to take strong action on accelerating the roll out of green heating systems.

Although energy generation has seen sharp falls in emissions in recent years, heat-related emissions have remained stubbornly stable, and the roll out of technologies such as heat pumps and biomass boilers has been hampered by high costs and technical challenges.

According to government advisory body the Committee on Climate Change, meeting greenhouse gas reduction targets of 80% by 2050 may prove impossible without tackling this issue, and the government's own Clean Growth Strategy cites heating sector emissions as one of the toughest decarbonisation challenges.

In a report published this month, Energy UK, which represents more than 100 energy suppliers, is calling for the government to support a range of tests for new technologies to help shift away from fossil-fuel heating, as well as policies on zero-carbon homes, and a review of the Renewable Heat Incentive.

Click [here](#) for more information.

Markets

UK Bioenergy reaches new highs in 2017



Geograph

The U.K. Department for Business, Energy and Industrial Strategy has released provisional 2017 energy data, reporting renewable energy generation reached a record high of 98.9 terawatt hours (TWh) last year, up 18.8 percent when compared to 2016.

The renewables' share of electricity generation in the U.K. was 29.4 percent last year, second only to gas. Overall renewable energy capacity reached 40.5 GW by the end of 2017, up 13.3 percent when compared to 2016. Bioenergy capacity increased by 4.2 percent, or 241 MW, last year. The increase in bioenergy capacity is primarily due to a 145 MW plant biomass capacity increase.

Total energy production reached 125.8 million metric tons of oil equivalent last year, up 0.4 percent when compared to the previous year. Production of bioenergy and waste reached 12 million metric tons of oil equivalent, up 11.2 percent when compared to 2016.

According to the U.K. government, electricity generation from bioenergy, including cofiring, reached 31.8 TWh last year, up 5.9 percent when compared to 2016.

In 2017, 32 percent of U.K. renewables generation was from bioenergy, with 29 percent from onshore wind, 21 percent from offshore wind, 12 percent from solar photovoltaic and 6 percent from hydro.

Click [here](#) for more information.

5GW increase in global bioenergy capacity



Geograph

The International Renewable Energy Agency has released new data that shows global renewable power generation capacity increased by 167 GW in 2017, reaching 2,179 GW. This represents an annual growth of approximately 8.3 percent.

Global bioenergy capacity increased by 5 GW, or approximately 5 percent last year. By the end of the year, global bioenergy capacity reached an estimated 109 GW.

According to IRENA, Asia continued to account for the majority of the growth in bioenergy capacity, with increases of 2.1 GW in China, 510 MW in India and 430 MW in Thailand. Bioenergy capacity also increased by 1 GW in Europe and 500 MW in South America. IRENA noted the increase in South America was relatively low when compared to growth experienced in recent years.

The data shows that total bioenergy capacity in the U.S. also increased last year, reaching 13.151 GW, up from 12.98 GW in 2016. U.S. bioenergy capacity for solid biofuels and renewable waste reached an estimated 10.567 GW last year, up from 10.415 GW in 2016. Generation capacity for biogas reached 2.429 GW in 2017, up from 2.41 GW in 2016.

Click [here](#) for more information.

Predictions for US biomass generation in 2018

Biomass magazine reported that the U.S. Energy Information Administration has released the April edition of its Short-Term Energy Outlook, predicting non-hydropower renewables will provide approximately 10 percent of US electricity generation this year, increasing to 11 percent in 2019.

Wood biomass is expected to be used to generate 120,000 MWh per day of electricity this year, increasing to 121,000 MWh per day next year. Waste biomass is expected to be used to generate 59,000 MWh per day of electricity in both 2018 and 2019.

Click [here](#) for more information.

Huge growth in European AD predicted

Europe Anaerobic Digestion Market is expected to surpass USD 8 billion by 2024. Increasing adoption of renewable energy across industrial establishments backed by rapid industrialization will propel industry growth. Introduction of government incentives including biogas electricity FIT and renewable heat incentives will encourage the deployment of renewable technologies. Currently industry has witnessed several extensive investments from private and public institutions for promoting the development of AD plants across the region.

Positive outlook towards food & beverage, agriculture and municipal industries will embellish anaerobic digestion market share. Farmers and entrepreneurs across the nations have adopted these technologies to reduce their dependency on fossil fuel and mineral fertilizers.

Municipal anaerobic digestion market share is predicted to witness growth owing to limited land availability in context of dump and landfills along with rising awareness towards waste management. Favourable measures towards material re-use and recycle along with increasing demand for waste material decompositions are some of the parameters which will positively influence the business growth. Countries including UK introduced gate fee to waste producers including industrial & commercial producers and municipalities for waste treatment.

Click [here](#) for more information.



Wikimedia Commons

Research & Development

£5m investment in North-East England's bioeconomy

The Biorenewable Development Centre is partnering on a £5million project to develop the bioeconomy across Yorkshire, the Humber region and the Tees Valley, led by the University of York.

The THYME project will build on the existing expertise and innovation in the region in a new collaboration between the Universities of York, Hull and Teesside.

Those involved in the three-year project say the funding will boost the region's economy, create jobs and deliver major environmental benefits.

The THYME project is part of a multi-million-pound investment package to drive university commercialisation across the country through Research England's Connecting Capability Fund (CCF).

Click [here](#) for more information.

Heat network possibility for Northallerton

Councils are exploring the possibility of hooking up North Yorkshire's county town to its own heating system involving cheaper, cleaner energy.

North Yorkshire County Council and Hambleton District Council are looking at whether Northallerton is suitable for a district heating scheme, which could see its hospital, library, leisure centre and other council buildings all served by a local source of heating. Once the system is established local homes could also be connected.

The two authorities have secured £33,500 from the Government's Heat Networks Delivery Unit to undertake initial technical studies into the feasibility of such a scheme in the town.

District heating systems produce steam and hot or chilled water at a central energy centre. The steam or water is distributed through an insulated pipework network to individual buildings for heating, domestic hot water and air conditioning.

Buildings served by the system don't need their own boilers or chillers.

The networks can provide affordable heating at potentially a third of the cost of conventional heating costs. They also reduce carbon, contribute to local energy resilience and sourcing and can provide jobs through the creation of a local energy sector.

The Government is promoting a move to heat networks as part of its decarbonisation strategy.

Click [here](#) for more information.

EDF looking to invest in energy storage

Reuters reports that French state-owned utility EDF (EDF.PA) plans to invest eight billion euros (7 billion pounds) between 2018 and 2035 to become a European market leader in electricity storage.

EDF, which already operates pumped storage hydropower plants and some utility-scale power storage batteries, said on Tuesday it aimed to become a French and European market leader, offering storage batteries for customers in the retail power sector.

Power storage usage by European utilities is growing as the intermittent supply from renewable energies like solar and wind forces them to have more power reserves on standby.

EDF plans to develop 10 gigawatts of additional storage capacity worldwide by 2035 - in addition to the 5 GW of pumped storage hydropower it already operates.

The company will develop some 6 GW in industrial-scale storage systems, notably in pumped storage and batteries, and 4 GW of individual batteries for retail customers, companies and municipal customers.

EDF Energy's 49-megawatt West Burton, Nottinghamshire, battery storage project for Britain's National Grid - which will be one of Europe's largest battery storage projects - is set to launch before the summer.

In the next 12 months, EDF plans to launch two more battery projects aimed at stabilising grids.

Working with local partners, EDF also aims to develop a portfolio of 1.2 million off-grid customers in Africa by 2035, equipping them with solar panels and individual battery systems.

Click [here](#) for more information.

Biomass Heat and Power

Poland to explore CoalSwitch biomass opportunities



Wikimedia Commons

Biomass firm Active Energy sealed a joint venture agreement with Polish research firm Cobant to explore opportunities to commercialize Active Energy's CoalSwitch coal additive in blends with reclaimed coal from slurry dumps in Upper Silesia, Poland.

Poland is the second largest coal producer in Europe, according to BP's Statistical Review of World Energy 2017.

CoalSwitch is a direct drop-in coal replacement biomass fuel made from sawmill waste and forestry residue that can be mixed in any ratio with coal fines or completely replace coal in existing coal-fired power stations, without retrofit, according to Active Energy.

Click [here](#) for more information.

Drax join Bloomberg in pushing for UK coal phase-out

Bloomberg Philanthropies and energy giant Drax become latest organisations to signal support for Powering Past Coal Alliance

Bloomberg Philanthropies, the charitable body run on behalf of former New York Mayor and media tycoon Michael Bloomberg, has announced a new partnership with the joint UK-Canadian anti-coal initiative the Powering Past Coal Alliance.

The partnership, launched this month at the Bloomberg New Energy Finance Summit in New York, will see Bloomberg Philanthropies work with the UK and Canadian governments to encourage more countries, regions and businesses to promise to phase out coal power from their energy portfolios.

The Alliance has recruited 27-member countries, alongside a host of regions and businesses, since its launch last year at the UN climate summit in Bonn.

The announcement came as a number of new businesses announced they were joining the group, including Drax, the power generation company that runs both coal and biomass plants in the UK.

Drax has already upgraded half of its power station in North Yorkshire to use wood pellets instead of coal, and has promised to phase out coal use altogether by 2025.

Click [here](#) for more information.

Biogas

NNFCC publishes 5th edition of its Anaerobic Digestion Deployment in the United Kingdom report

NNFCC have published the fifth edition of their annual 'Anaerobic Digestion Deployment in the UK' report. The publication provides a detailed breakdown of the UK AD sector on both a national and regional basis, using primary data to offer an accurate reflection of industry output capacities and feedstock consumption.

A year has passed since they published their last report and the industry has demonstrated its resilience in a difficult market. Constant delays in the implementation of tariff reinstatements under the RHI has brought developments in the biomethane sector to a halt, with developers unwilling to commit to projects until the amended legislation is adopted. However, with the new regulations laid in Parliament in February and the hope they will be passed following the Easter recess, the light is very much at the end of the tunnel.

Meanwhile, the Feed-in Tariffs have suffered continued depressions and are now at an unviable level for most projects. This has resulted in a significant drop-off in the development pipeline with far fewer projects entering planning than witnessed in previous deployment years.

However, despite the policy turmoil we have witnessed 72 AD plants complete over this last year bringing the total number of operational plants outside the waste treatment sector to 473, with capacity to provide electricity to almost 900,000 households and gas supply to 250,000 homes.

Click [here](#) for more information.

Surge in French biomethane injection



Geograph

The amount of biomethane injected into French gas networks almost doubled between 2017 and 2016, according to a new overview of France's renewable gas sector.

Figures in the report from GRTgaz show that 406 million kWh of gas were injected into the network over the period. This, apparently, is equivalent to the consumption of nearly 34,000 homes.

The report finds that around 100 new biomethane projects were declared in 2017, increasing the biomethane production capacity by 3 billion kWh/year.

With a total of 361 biomethane projects now registered in France, the country's total capacity now stands at 8 billion kWh/year.

These developments in France's biogas industry have yielded a number of vital benefits for the country. Significantly, the increased use of biomethane has seen 90,000 tonnes of CO₂ emissions avoided.

The report claims that the growth of the biomethane sector strengthens the role of the agricultural world in France's economy, while also helping to 'develop a competitive French industrial sector.'

Click [here](#) for more information.

Neste begins biobased propane production

Neste has started up the world's first large-scale renewable propane production facility in Rotterdam in the Netherlands. The first cargo of renewable propane has been delivered to SHV Energy, who will market and sell the product to its customers across Europe as BioLPG. Neste's new facility has a production capacity of 40,000 tonnes per year and SHV Energy will be the exclusive distributor, supplying 160,000 tonnes over four years.

BioLPG will enable users of existing fossil fuels to reduce their carbon footprint, without any modifications to existing gas applications technology. BioLPG can be used within a full range of existing LPG applications, from transport and commercial heating to retail leisure cylinders.

Neste's Rotterdam refinery primarily produces premium-quality Neste MY Renewable Diesel from various waste and residues as well as vegetable oils. The new unit will purify and separate renewable propane from the sidestream gases produced by the refinery.

Click [here](#) for more information.

EnviroChemie acquires Clearfleau

ClearfleauTM

Clearfleau

Clearfleau Limited, a leading British provider of on-site waste to energy plants for the food and drink sector, has been acquired by the German water treatment company EnviroChemie GmbH, which is part of SKion GmbH's water portfolio. EnviroChemie supplies advanced water and wastewater treatment plants for clients in the industrial and commercial sectors.

The collaboration will allow Clearfleau to expand operations in Europe while providing a wider range of technology solutions to British manufacturing industry clients.

EnviroChemie, based in Darmstadt, Hesse, has established a global reputation for reliable and innovative technology in the water and wastewater treatment sector, developing and implementing a range of customised on-site treatment solutions for customers in a range of industrial and commercial markets.

Clearfleau's on-site anaerobic digestion (AD) based plants enable food and drink processing companies to treat their effluent and generate biogas, reducing their overall energy use and cutting carbon emissions while converting liquid residues into bio-energy and clean water.

Click [here](#) for more information.

Third AD acquisition for Olleco

Olleco has announced the acquisition of an anaerobic digestion (AD) facility at Westcott Park, Buckinghamshire from Renewi plc.

Westcott Park will be Olleco's third AD facility in addition to our sites at Aylesbury and Liverpool. The facility has capacity to process 96,000 tonnes of food waste each year and produce up to 3.2 Mw of green electricity and 4.8Mw of renewable heat which is enough to power 6,000 homes.

Click [here](#) for more information.

Energy from Waste

Council rejects Oldham Energy from Waste plant plans

Oldham Council's planning committee has voted 13 to one to reject an application for six warehouses, an office, and an energy-from-waste plant on an industrial site in Royton, despite the developer claiming investment interest from Canadian and Norwegian pension funds.

The outline planning application by The Connell Group and Woodhouse Properties includes an office block, six industrial units, and an energy-from-waste plant which would generate between 10 and 11 megawatts of power to support local businesses.

Parts of the site alongside the Manchester to Rochdale Metrolink line are currently used as a waste recycling business, but is designated as open land under Oldham's local plan.

Connell and Woodhouse had argued the scheme would create up to 200 construction jobs during the development phase, and around 50 jobs when complete.

The application was due to be discussed by the planning committee in February but was deferred to allow Connell and Woodhouse to provide more information to planners and statutory consultees.

However, planning officers continued with their recommendation that the project be refused, based on highways issues, environmental impacts, and the area's designation as Other Protected Open Land under Oldham's local plan.

Click [here](#) for more information.

Hope for proposed EfW plant as council softens stance

East Cambs Council has decided to weaken a suggestion that the view of Ely Cathedral was a vital element in opposing a £200 million energy-from-waste plant at Waterbeach.

The district council, asked for its view on the application now before Cambridgeshire County Council, finally concluded that "the impact on Ely Cathedral (Grade I Listed Building) will need to be assessed".

But they deleted a more detailed response – put forward by officers – that would have gone further in being more specific about long distance views of the cathedral being of concern.

The waste recovery facility would generate enough energy for 63,000 homes. It would also be capable of exporting heat to local users and to create this energy it would need to burn up to 250,000 tonnes of waste (non-hazardous) per annum.

Click [here](#) for more information.

Events

All-Energy

Glasgow, 2nd-3rd May 2018

All-Energy, the UK's largest renewable energy event, will take place in Glasgow on 2nd & 3rd May 2018. Join us to hear from 400+ experts from across all sectors of the renewable industry in 50+ FREE conference sessions. Network with 7,500+ renewable energy professionals at one of the many networking events happening over the two days.

Click [here](#) for more information.

EUBCE 2018

Copenhagen, 14th-18th May 2018

We look forward to the 26th EUBCE in 2018 in Denmark and to the many vibrant topics that will be included in the agenda. The core of the traditional EUBCE conference will be held over 4 days.

There will however be an extension to the core conference and exhibition in order to showcase the many achievements in the field of full scale biomass utilisation in Denmark that are an integral and major part of the country becoming fossil-free by 2050. Members of the national organising committee will organise special technical visits to sites in the centre of the country where biomass is the key renewable feedstock into processes producing renewable energy, biofuels, biochemicals and biomaterials as well as integrating bioproducts into traditional established fossil-based systems.

Click [here](#) for more information.

World Waste to Energy and Resources Summit

London, 23rd-24th May 2018

The World Waste to Energy and Resources Summit brings together its best ever faculty of international waste management CEOs, developers, bankers, private equity financiers, technology providers and industrial end users for two days of intensive networking.

With a firm focus on advanced conversion technologies, the summit addresses the need for innovation – not just in technology, but in policy, finance and partnership models – in order to accelerate the growth of the industry worldwide.

Click [here](#) for more information.

RRB 14

Ghent, 30th May - 1st June 2018

The 14th edition of the International Conference on Renewable Resources & Biorefineries will take place in Ghent, Belgium from Wednesday 30 May until Friday 1 June 2018. Based on the previous RRB conferences, this conference is expected to welcome about 350 international participants from over 30 countries.

The three-day international conference will consist of plenary lectures, oral presentations, poster sessions and an exhibition. Companies and research organizations are offered the opportunity to organize a satellite symposium.

Click [here](#) for more information.

UK AD & World Biogas Expo Birmingham, 11th-12th July 2018

UK AD and World Biogas Expo, the largest international trade show dedicated solely to the anaerobic digestion and biogas industry, returns in 2018 to provide the latest market and technology news, sector by sector, as well as a platform for industry professionals from the UK and overseas to network, share experiences and do business.

UK AD and World Biogas Expo 2018 is unique in bringing together an international gathering of new and existing players in this game-changing sector. Over two full days, it will provide a dynamic platform for them to engage with each other.

Click [here](#) for more information.

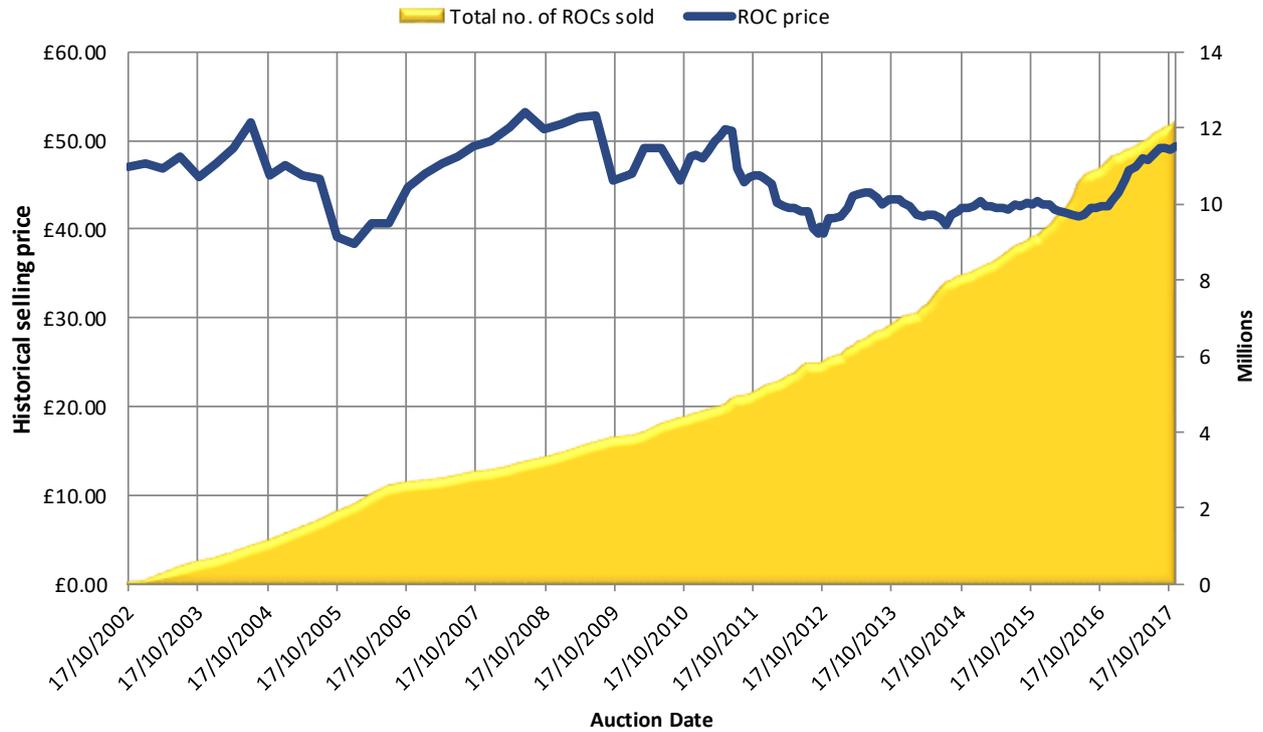
EFIB 2018 Toulouse, 16th-18th October 2018

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

Click [here](#) for more information.

Prices

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



Click [here](#) for more information

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