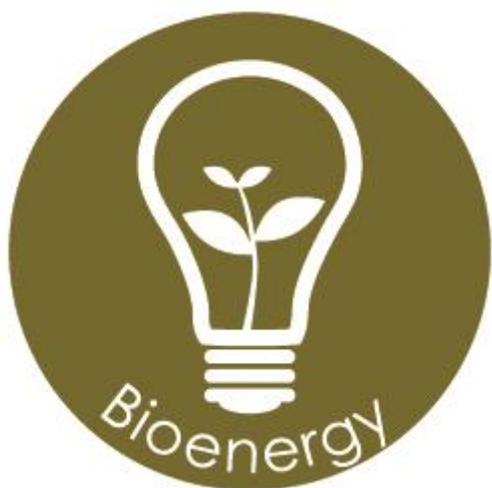


News Review



Issue Ninety-One

October 2019

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

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Foreword

Welcome, both subscribers and non-subscribers, to October's Bioenergy News Review.

As Winter draws closer and we can feel the weather changing here in York, many of us will be thinking about starting to turn the heating on. For those who use domestic wood burners and multi-fuel stoves, perhaps a coffee log could offer a more sustainable form of heating than a regular log. Bio-bean, a recycler of spent coffee grounds, produce these compact fire logs made from recycled waste coffee grounds and they are soon to be supplied with a lot more waste coffee grounds. London Stansted Airport are to start recycling all their waste coffee grounds after a successful trial period with bio-bean. Recycling coffee grounds in this way at Stansted Airport is expected to prevent over 150 tonnes a year of coffee waste heading to landfill, reducing associated emissions by up to 80%. As a bonus for staff and the local community, the first 2,000 logs produced from this new waste-stream will be given away for free to mark the occasion.

Biogas in Ireland is set to play a vital role in reducing carbon emissions by 2050. Gas Networks Ireland with its parent company Ervia plan to reduce emissions by a third, by creating a zero-carbon gas network for which they have laid out a Vision 2050 plan. Gas generates a substantial proportion of the country's electricity, so decarbonising Ireland's energy requires considerable reliance on decarbonising gas powered electricity generation. Although with 2050 still a way off, progress towards zero-carbon in Ireland has already occurred this month. Using biomethane as a transport fuel represents the most carbon effective use of biogas, according to the Carbon Trust, and a HGV delivery from Ireland to France, covering a total of 1,121 km, made a zero-carbon trip using biomethane as a fuel.

Powering your home with renewable energy often unfortunately means paying a premium, meaning clean energy is not always accessible to everyone. Making more environmentally friendly alternatives competitively priced is one of the largest barriers towards expansion of the bioenergy sector. However, 12 new renewable energy projects will be powering over 7 million homes in the UK at record low costs. It is expected that these projects will help the price of renewables drop below standard market rates, passing savings and wider benefits onto customers.

Read on for the latest news.

Policy

RPS for waste wood extended to 2020

The Environment Agency (EA) has extended a Regulatory Position Statement (RPS) on the use of mixed waste wood by a further ten months, to allow completion of a major project.

The Waste Wood Classification (WWC) Project is being led by the Wood Recyclers' Association (WRA) and aims to ensure that waste wood in the UK is being properly classified at the front end of the recycling chain and processed for the appropriate end uses.

The WWC project began in the autumn of 2017 with the EA issuing the RPS at that point, stating that mixed waste wood must only be used for panel board feedstock or biomass destined for Chapter IV Compliant boilers, while the project work is carried out.

Large scale sampling of waste wood and laboratory work then began to take place. The RPS was further extended by 12 months last September to 30th September this year. As the sampling work is still on-going, the EA has now agreed a further extension to 31st July 2020. That means nothing will change prior to that point.

The project is now over halfway through the sampling process of mixed waste wood from Household Waste Recycling Centres (HWRC), waste transfer stations and waste wood processors.

Click [here](#) for more information.

Record low price of clean energy by 2025



Needpix

Twelve new renewable energy projects have won Contracts for Difference - enough to power over seven million homes at record low costs.

The new projects will provide around 6GW of capacity – 2.4GW more than the last round. Two Advanced Conversion Technology (ACT) projects are included in the twelve, diverting waste from landfill to produce renewable energy. For the first time renewables are expected to come online below market prices and without additional subsidy on bills, meaning a better deal for consumers. The costs of offshore wind are now around 30% lower than the second auction held in 2017, with projects now being delivered for as low as £39.65/MWh.

The new projects and lower prices are another step toward decarbonising our energy system as we work toward net zero emissions by 2050, creating jobs and economic opportunities across the UK. According to research by RenewableUK, the new projects could see 8,000 jobs created.

Click [here](#) for more information.

Review of permitted waste sites



Wikimedia Commons

The Environment Agency is set to launch a review of permitted waste sites within the bio-waste sector, which includes composting, anaerobic digestion and mechanical biological treatment.

This bio-waste sector is critical to a closed loop, circular economy and is particularly important as it helps support agriculture, reduces the need for inorganic fertilisers, mitigates against decreasing soil quality as well as helping to meet renewable energy targets and reducing our reliance on fossil fuels.

This review will embed recent changes to legislation, including the requirement of the Industrial Emissions Directive, to ensure compliance with best available techniques and emission limits. It will also ensure that all bio-waste operations are regulated in a consistent manner and that the objectives of the Government's 25 Year Environment Plan are met. It seeks to improve the quality of recovered material and improve the performance of the sector, securing a regulatory framework that is fair and achievable, whilst providing the best possible protection for people and the environment.

A standard rules consultation will be published in early Autumn and there have been several consultations on the revised standards and proposed changes for bio-waste. These have provided operators with the opportunity to

influence and raise concerns which have been taken into account in final proposals.

The review will begin with bespoke permits, and with sites presenting the highest risk or poor performance being prioritised.

The EA will shortly formally request information from operators on their process and pollution control measures to assess against new best available techniques. Waste operations permits will undergo a similar process, due to start in the late Autumn 2019.

Click [here](#) for more information.

New committee on climate change

The Prime Minister will chair a new Cabinet Committee on Climate Change to drive further action across government to protect our environment, reduce emissions and improve air quality.

The Prime Minister has announced that he will chair a new Cabinet Committee on Climate Change. This will drive further action across government to protect our environment, reduce emissions and improve air quality.

The first government committee of its kind, it will bring together ministers responsible for domestic and international climate change policy and provide a forum to hold departments to account for their actions to combat climate change.

This will ensure that the action we take here in the UK to deliver on our net zero commitment and our wider international effort to tackle climate change properly support and reinforce each other.

Getting to net zero emissions by 2050 will require profound change across government, and across society, and the Committee will play an essential role in co-ordinating this strategy.

The Committee will also oversee the UK's preparations to host the UN's major climate summit COP26, in November 2020.

The Committee will include representation from the departments responsible for taking this agenda forward including the Foreign Secretary, the Chancellor, the Chancellor of the Duchy of Lancaster, the Business Secretary, the Environment Secretary, the Transport Secretary, the International Development Secretary and the Housing Secretary.

Click [here](#) for more information.

Markets

Scotland soon to use 100% renewables



Flickr

Energy live news reports that wind, solar and hydropower are now Scotland's main source of electricity, providing around three-quarters of all Scotland's power generation. Scotland will soon be meeting the equivalent of 100% of its electricity needs from clean energy sources.

That's the prediction made in a new report published by Scottish Renewables, which suggests renewable energy is providing significant benefits to almost every aspect of the nation's economy and is supporting major growth in terms of

innovation, jobs, communities, climate progress and the rural economy. As a result of the success of renewable energy generation across the country, the sector now employs a total of 17,700 people, with thousands more involved in hundreds of community energy projects taking place.

The report notes these successes have been led by policy, with the government declaring a climate emergency and committing to reaching net zero emissions by 2045. It stresses the nation now needs to focus on decarbonising the heat and transport sectors in the same way as it has already achieved with electricity.

Click [here](#) for more information.

Essentials' guide to bioenergy

Bioenergy Europe has launched 'Essentials', a quick guide to bioenergy and the myriad of ways it helps Europe leading the fight against climate change. Essentials collects basic facts and figures on the feedstocks and technologies currently used in the sector, how biomass is managed and what is needed to encourage further deployment.

Click [here](#) for more information.

Haven Power to supply Ford with renewable energy

Haven Power has won a contract to supply all three of Ford Motor Company UK's manufacturing locations with around 250GWh of renewable electricity per year. The deal makes Ford one of Haven Power's largest clients and gives them access to a renewable energy source and the flexibility to track wholesale energy prices. Haven Power also provides accurate billing, a high standard of quality checks and strong service level agreements.

Haven Power is committed to achieving sustainable energy usage and supporting other businesses to achieve their own sustainability goals.

At its Ipswich offices, Haven Power has installed almost 500 square metres of solar panels, which are expected to meet 36% of its electricity demand during 2019. In addition, efficient LEDs have been installed which also contribute to reduced electricity consumption from the grid.

Click [here](#) for more information.

According to a report by Money Saving Expert, the deal is expected to be completed by the end of 2019. Both firms will operate independently until the transaction is finalised.

Click [here](#) for more information.

Shell to buy Green Star Energy



Wikipedia

Shell Energy has announced plans to buy UK company Green Star Energy in a £10.5 million deal. Under the agreement, Shell Energy will acquire Hudson Energy Supply UK, which supplies 200,000 homes in the UK through the Green Star Energy brand, as well as 2,000 commercial properties.

Shell Energy is one of the biggest brands outside of the 'Big Six' - British Gas, EDF Energy, E.ON, Npower, Scottish Power and SSE – with around 780,000 customers. The company, formerly known as First Utility, rebranded in March 2019 and sources its renewable electricity through wind farms, solar plants and biomass.

Future of biomass plant uncertain

Hull Live reports that HRS Energy Tansterne had contacted RSM (a Tax and Audit firm) over the voluntary liquidation of the firm. It is unknown at this stage what impact the expected liquidation will have on the plant, which planned to convert 150,000 tonnes of waste wood every year into clean energy.

The 22MW biomass plant is located to the east of Hull, and work on development of the plant started back in March 2017.

Click [here](#) for more information.

Research & Development

BEIS reveals results of study into RHI boiler efficiency

A field trial, laboratory investigation and social research programme was carried out. In total, 67 boilers were monitored across 61 sites over a period of a year from July 2016 to July 2017. The programme measured the real-life performance of the boilers in terms of efficiency and pollutant emissions. The efficiency was calculated under real-world conditions throughout the test programme, using an algorithm based on the

indirect or losses method. Pollutant emissions from two boilers were measured using a dynamic test rig simulating a range of real-world conditions. Energy balance validations were used to give confidence in the robustness of the data reported.

This work found a performance gap, both in terms of energy efficiency and emissions of particulates, when biomass boilers are operated under real-world conditions. Many of the biomass boilers observed were oversized for the heat demand they were supplying, and this was one of the causes of frequent cycling.

The average efficiency of biomass boilers under real-world conditions (which were determined via the in-situ monitoring) was 77% net or 70% gross. This indicates there is a performance gap of on average 15 percentage points, between standard laboratory efficiency and real-world efficiency.

The particulate emissions were 50-160 g/GJ net input under real-world conditions. These exceeded the RHI emissions limit of 30 g/GJ net input for particulate emissions by 2-5 times, although they may not have been visually noticeable. The NO_x emissions from the two boilers studied in detail were 70-130 g/GJ net input under real world conditions with standard virgin wood fuel. These did not exceed the RHI emissions limit of 150 g/GJ net input. Non-virgin fuel with higher nitrogen content led to correspondingly higher NO_x emissions.

The predominant factors causing poor performance were rapid cycling, poor fuel or lack of operator knowledge (and therefore maintenance of the boiler). However, the root cause of these factors was a complex combination of issues specific to each biomass boiler in the trial.

Click [here](#) for more information.

Food waste reduction roadmap



Wikimedia Commons

One year on from the launch of WRAP and IGD's Food Waste Reduction Roadmap, 156 UK food businesses have now committed to Target, Measure and Act on food waste. This represents more than half of UK food industry turnover, and more than double the number of food businesses committed to the Roadmap at launch. These businesses are joined by a further 29 other organisations including major trade bodies and redistribution organisations. That number has risen from 19 at launch.

121 of these food businesses have provided evidence to WRAP that they are already implementing the Target, Measure, Act strategy in an effort to reduce food waste. These include all of the UK's largest grocery retailers, and over 100 other large food businesses.

Together these 121 businesses have a combined turnover of over almost £220 billion, representing 50% of the overall turnover for UK food manufacture, retail and hospitality, and food service. They also generate around 1.1 million tonnes of food waste in their own operations, a third of the total UK post-farm gate supply chain food waste.

Click [here](#) for more information.

Biomass Heat and Power

Waste wood gasification in Cheshire



Pixabay

The Bioenergy Infrastructure (BIG) Group has officially opened its 170,000 tonne per year capacity waste wood gasification plant in Ince, Cheshire. However, the plant – handed over to BIG last year before becoming fully operational in March 2019 – is currently suffering an outage due to problems with the screw feeder and is due to be back online this month, the developers of the plant explained last week.

Another defects liability period (DLP) is planned soon to ensure any problems with the facility are corrected. According to BIG, the plant – which was developed by infrastructure group CoGen – works by using waste wood as a feedstock into a gasifier, with the gas produced then burnt to produce a steam which runs a turbine, which then generates 22MW of electricity a year.

The plant is also believed to benefit from an increased Renewable Energy Certificate (ROC) which is given to gasifier facilities as they are said to be a form of 'cleaner energy' than that from traditional incineration facilities. There are thought to be seven facilities using the technology in the country, including three in the BIG portfolio.

Waste wood for the Ince plant is provided by both Moody's and Manchester-based wood recycler Bodens, who collect from a number of sites across Manchester including local authority sites and construction and demolition waste. This is then processed at their plant in Astley, before being taken to a large storage area nearby to the plant. This ensures the supply of waste wood is not affected by any of the outages.

Click [here](#) for more information.

Biogas

Ireland to Europe zero-carbon delivery

An Irish logistics company has become the first haulier to complete a zero-carbon HGV delivery to Europe. Virginia International Logistics transported processed beef from County Cavan, Ireland to Caen in northern France. The 1,121 km trip was fuelled by renewable gas.

The lorry was fuelled by bio-compressed gas purchased from biomethane producers in Europe and delivered via Gas Networks Ireland. The truck filled up at the company's compressed natural gas (CNG) station in its Dublin yard and again at a station in France.

Switching to CNG can reduce a lorry's emissions by up to 22%, according to a report by Irish Times. However, using CNG in the same vehicle eliminates carbon emissions.

The firm has eight CNG-fuelled trucks in a fleet of 130 lorries and another 20 on order. So far, the firm has invested €3 million and it aims to spend a further €3-5 million on the fleet.

Click [here](#) for more information.

Gas Networks Ireland's 2050 plan

Gas Networks Ireland and its parent company Ervia say they will reduce Ireland's carbon emissions by a third with their Vision 2050 plan. Through a combination of technologies, Gas Networks Ireland (GNI) explained how it can reduce Ireland's total carbon emissions by one third and create a net zero carbon gas network.

GNI's vision is that by 2050, half of the gas on Ireland's network will be renewable gas and hydrogen. The other half will be 'abated gas', where carbon dioxide (CO₂) has been removed through carbon capture and storage (CCS). This will prevent CO₂ emissions from entering the atmosphere.

The company's Vision 2050 plan outlines the role the gas network and technologies such as renewable gas, compressed natural gas (CNG) for transport, CCS and hydrogen will play in tackling climate change and securing Ireland's sustainable energy future.

Click [here](#) for more information.

Energy from Waste

London energy recovery centre impact

Failure to replace an ageing incinerator in North London with a new energy recovery facility could lead to the same carbon impact as adding 110,000 cars on the road every year, according to a new expert analysis.

The work by engineering consultants Ramboll, which assessed the carbon impact of the new

plant in Edmonton, found it will save the equivalent of 215,000 tonnes of carbon dioxide every year – like adding 110,000 cars to the road, compared to the alternative of sending the same amount of waste to landfill.

The new facility is part of the overall drive towards Net Zero by generating up to 78 megawatts of low carbon energy in the form of heat and power, displacing the need for virgin fossil fuel generated power like gas and coal.

Plans show North London Waste Authority (NLWA) are incorporating the best available technology for removing NO_x from their emissions to help improve air quality in north London.

This solution mirrors countries in Germany and Belgium who are renowned for clean and modern facilities which treat waste in a sustainable way, while recycling over 50%.

Click [here](#) for more information.

Coffee logs at Stansted



Public Domain Pictures

The UK's London Stansted Airport will become the first in the world to convert all its waste coffee grounds into biofuels, following a successful trial with bio-bean – the world's largest recycler of coffee grounds – Cambridge Network has reported.

Passengers at Stansted Airport create over 150 tonnes of coffee waste annually. The new partnership will see every coffee shop and restaurant in the airport segregating spent coffee grounds before being transported to bio-bean's processing facility in Cambridgeshire, UK.

The coffee grounds are then converted into Coffee Logs, which can be used in domestic wood burners and multi-fuel stoves as a sustainable alternative to conventional fuels. This method of recycling coffee grounds reduces carbon dioxide equivalent emissions by 80%, compared to being sent to landfill, and by 70% if they were sent to an anaerobic digestion facility with other food waste.

Click [here](#) for more information.

Energy recovery centre given go-ahead



Wikimedia Commons

Corby Limited's plans for an energy recovery centre (ERC) in Shelton Road, Corby have been approved by Northamptonshire County Council.

The proposed facility will process up to 260,000 tonnes per annum of residual waste and waste derived fuel and generate 23MW of base load, clean electricity; enough to meet the energy needs of most of the homes in Corby. The facility will utilise traditional moving grate technology.

Click [here](#) for more information.

Renewable energy plant for corrugated board manufacture

Award-winning drinks packaging company McLaren Packaging, through CorrBoard Bioenergy, its joint venture with printed packaging supplier Swanline Group, has invested £5.5 million in the creation of the world's first dedicated sustainable energy generation facility fuelled by organic waste to provide heat and power for the manufacture of corrugated sheet board.

The investment will facilitate carbon neutral corrugated material for use at McLaren and Swanline's respective manufacturing plants in Port Glasgow and Staffordshire.

Some of the waste needed for the 6,400 Megawatt per annum energy plant will be sourced from Swanline and McLaren's packaging users who require compliant food waste disposal; thus, providing a robust circular economy. Remarkably, the by-product from the plant is a quality fertiliser, pasteurised and certified to PAS 110, suitable for spreading on local farmland to aid crop growing.

CB Bio is located adjacent to CorrBoard UK, the consortium-owned independent corrugated producer based in Scunthorpe of which Swanline and McLaren are part owners. Although autonomous neighbouring businesses, this innovative facility effectively makes CorrBoard UK's production carbon neutral, providing an advantage to its customers and partners.

Both McLaren and Swanline expect CB Bio to substantially offset their own carbon footprints from the excess energy not consumed by CorrBoard UK but fed to the National Grid and allocated back to them in carbon credits.

Click [here](#) for more information.

Energy recovery facility in West Sussex

The joint venture in Ford, West Sussex, will be constructed at Grundon owned Ford Circular Technology Park, adjacent to Viridor's existing Materials Recovery Facility (MRF).

In support of the UK's ambition to reduce waste in an efficient and effective manner, Viridor and Grundon Waste Management Limited have announced outline plans for the construction of a new Energy Recovery Facility (ERF) at Ford in West Sussex.

Viridor, which is part of the FTSE 250-listed Pennon Group, and one of the UK's largest recycling and waste management providers, has signed Heads of Terms with Grundon Waste Management Limited for the new ERF.

Grundon is the UK's largest privately owned waste management and environmental services company. Formed in 1929, the company recently celebrated its 90th anniversary.

The proposed location of the new ERF is adjacent to both Grundon's existing waste transfer operations and one of Viridor's existing Materials Recovery Facilities (MRFs), bringing potential Energy Park benefits. It follows the success of the existing joint venture between Viridor and Grundon at Lakeside Energy from Waste (EfW) facility, near Slough.

The proposed location already benefits from planning consent for an ERF, which followed its development plan allocation by West Sussex Council. The new ERF at Ford will bring the total number of plants in Viridor's portfolio to twelve. Viridor's current £1.5 billion ERF portfolio has ten plants in operation with the £252 million ERF at Avonmouth currently under construction.

Click [here](#) for more information.

Events

Future of Biogas Europe 2019 Amsterdam, 13th-14th November 2019

This 5th annual two-day conference will once again provide a senior level platform and bring together senior executives & experts from the entire value chain including power producers, technology providers, agricultural sector, food and beverage industry, waste industry and leading technology and solution providers.

Join us in Amsterdam to discuss the latest challenges and developments making an impact on the industry and benefit from excellent networking opportunities.

Click [here](#) for more information.

RSB Annual Meeting 2019 Berlin, 5th-6th December 2019

The 2019 RSB Annual Meeting is sponsored by Agrisoma, Airbus and UPM Biofuels, and is where we will be unlocking the tools and strategies being employed by leaders across the advanced bioeconomy as they embed real sustainability in every layer of their operations.

Members, brand leaders and innovators, certified operators, feedstock producers and non-profits are invited to join us in Berlin for two days of discovery and practical insight.

Click [here](#) for more information.

Adba National Conference London, 11th December 2019

ADBA's flagship event returns in December 2019, marking 10 years of ADBA and 10 years before the UK government must reduce emissions by 57%. If this is delivered, the UK will be on track to meet its 2050 commitment: "net zero" greenhouse gases by 2050.

The UK anaerobic digestion industry has a critical role to play in helping the government achieve this. This year's conference will discuss what this is and how we can realise it. Therefore, the central theme is: There's no Net Zero without Biogas.

As well as debating this issue with leading industry figures, delegates will dive into specific sectors such as farming, heating, transport, digestates, CO₂ and end of life and learn more about how AD can help end waste, deliver the circular economy and tackle the climate crisis.

There will also be extensive opportunities to network and review the latest AD products and services with our exhibitors.

Click [here](#) for more information.

RRB-16 Ghent, 3rd-5th June 2020

The 16th edition of the International Conference on Renewable Resources & Biorefineries will take place in Ghent, Belgium from 3rd June until 5th June 2020. Based on the previous RRB conferences, this conference is expected to welcome about 350 international participants from over 30 countries.

Delegates from university, industry, governmental and non-governmental organizations and venture capital providers will present their views on industrial biotechnology, sustainable (green) chemistry and agricultural policy related to the use of renewable raw materials for non-food applications and energy supply. The conference further aims at providing an overview of the scientific, technical, economic, environmental and social issues of renewable resources and biorefineries in order to give an impetus to the biobased economy and to present new developments in this area.

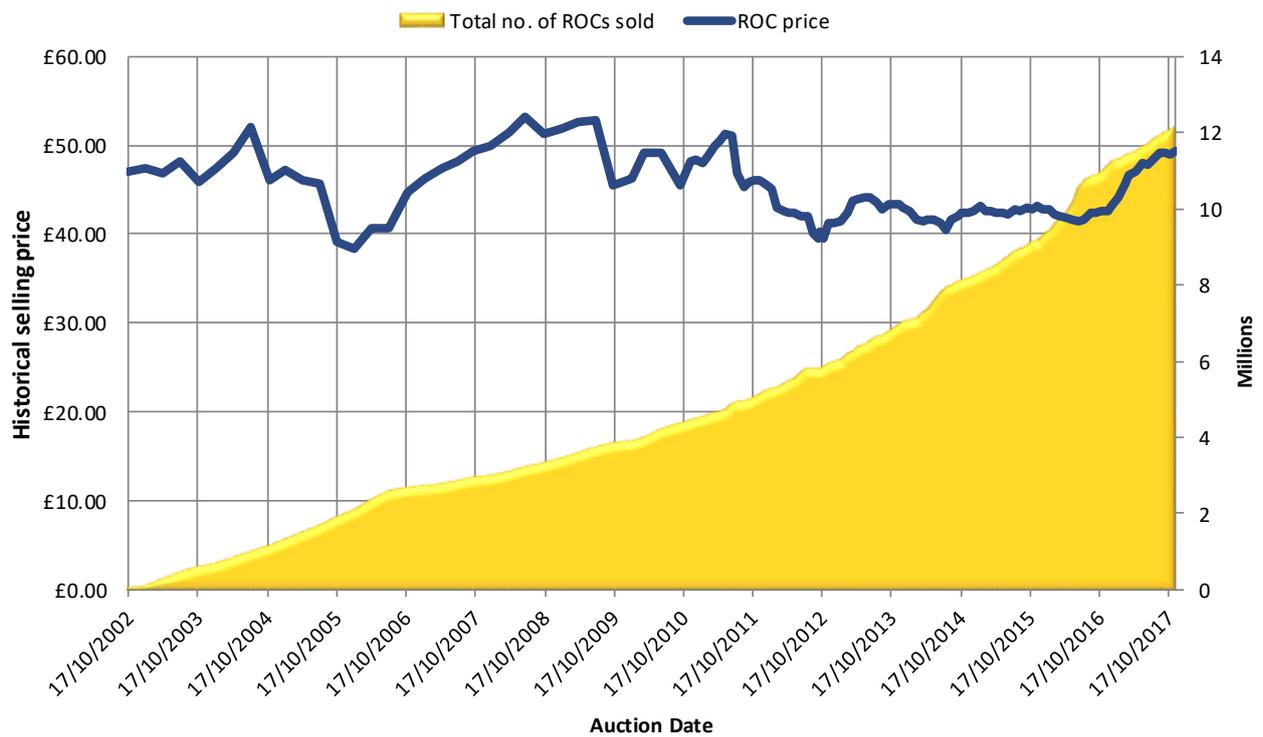
The conference will provide a forum for leading political, corporate, academic and financial people to discuss recent developments and set up collaborations.

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.

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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