



THE ASSOCIATION  
FOR RENEWABLE ENERGY  
& CLEAN TECHNOLOGY

9<sup>th</sup>  
December  
2021

# REA Green Gas Forum meeting



GREEN GAS



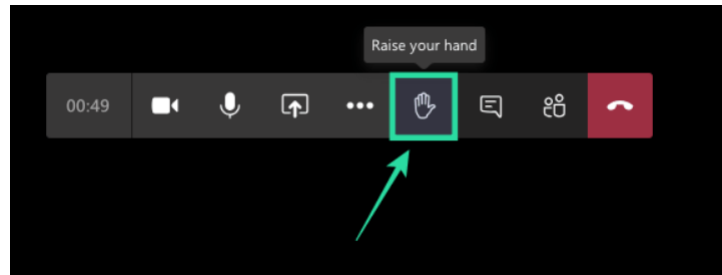
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*Decarbonising the economy*

# Meeting Housekeeping

- All please join as *muted & without video*
- Please note where the *conversation box* should you have any questions or wish to comment, or use the *raise your hand* button



- We will have Q&A sessions during the meeting

The session will be recorded for accurate note taking.

Participants of the meeting will receive a copy of the slides and recording will be available upon request.

## Thank you



# Agenda

- 11:00 – 11:10 Welcome and introduction – William Mezzullo, Centrica and REA Green Gas Chair
- 11:10 – 11:30 High level policy updates from the REA (Kiara Zennaro, REA)
- 11:30 – 11:50 BEIS updates on Government support for green gas (Ciaran Myles, Senior Policy Advisor, Biomethane, Clean Heat Directorate)
- 11:50 – 12:10 European Policy Developments (FIT for 55 Package) (Anthony Lorin, Policy Officer, EBA)
- 12:10 – 12:25 Update on work on CO<sub>2</sub> capture from biomethane plants (Tim Charters, Corporate Finance Advisor, BEIS)
- 12:25 – 12:40 Update on transport policy (Paul Thompson, REA RTFF)
- 12:40 – 12:50 Update on food waste collections (Jenny Grant, REA Organics)
- 12:50 – 13:00 CHP conversion project (John Baldwin, CNG Services)
- 13:00 – 13:10 Update on GGCS and Guarantees of Origin work –biomethane, CO<sub>2</sub> and Hydrogen (Jess Scharf, GGCS)
- 13:10 – 13:20 Meeting close (REA Green Gas Forum Chair)

# High level policy updates

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## Raft of policy documents released ahead of COP:

- Hydrogen Strategy and consultations (August)

### October:

- Net Zero Strategy
- HM Treasury Net Zero Review
- Autumn Budget
- Heat and Buildings (H&Bs) Strategy
- 3 consultations published with the H&Bs Strategy
- Government response to Clean Heat Grant consultation (now named Boiler Upgrade Scheme)
- Research on improving energy performance of owner-occupied homes
- Greening Finance: A Roadmap to Sustainable Investing
- Government response to CCC's 2021 Progress Report and Progress Report on Adapting to Climate Change
- Government response to Greenhouse Gas Removal (GGR) Call for Evidence and various research reports on GGRs

### November: Biomass Policy Statement



## Links to recent member briefings

- [Autumn Budget briefing](#)
- [Net Zero Strategy and Treasury review briefing](#)
- [Heat and Buildings Strategy briefing](#)
- [Briefings with all Net Zero announcements](#)
- [Biomass Policy Statement](#)
- [Hydrogen Strategy](#)
- [Scottish Heat and Buildings Strategy](#)
- [COP26 outcomes briefing](#)
- [COP26 announcements](#)





## Net Zero Strategy – select highlights

- Formal inclusion of the target for **decarbonised electricity by 2035**
- £140m for an '**Industrial decarbonisation and hydrogen revenue support scheme**' (IDHRS)
- Ambition to 10% of aviation fuel to be from **Sustainable Aviation Fuels** by 2030, with £180m funding for plants in the UK
- £295m of **capital funding for LAs to move to separate food waste** collections from 2025 (England only)
- Deliver **four carbon capture usage and storage (CCUS) clusters**, capturing 20-30 MtCO<sub>2</sub> across the economy, including 6 MtCO<sub>2</sub> of industrial emissions per year, **by 2030**
- Ambition to deploy at least **5 MtCO<sub>2</sub>/year of engineered Green House Gas Removal Technologies by 2030**.
- £500m extra towards green technologies development under **net zero innovation portfolio** (NZIP)
- £3.9bn for heat and buildings – new **Boiler Upgrade Scheme**
- Commitment to release and updated **Green Taxonomy**



## Heat and Buildings Strategy

Presented to Parliament by the Secretary of State for Business, Energy and Industrial Strategy by Command of Her Majesty

October 2021

CP 388

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# Select Highlights

- Confirmed ambition for all **new heating systems installed in existing UK homes from 2035** to be low carbon (in line with replacement cycle timelines).
- **Off the gas grid – existing:**
  - proposals for a **2026** phase out date for new fossil fuel systems in **homes** (in line with replacement cycle) and hard stop date in late 2030s.
  - **2024** phase out date for **large non-domestic buildings**, **2026** for **small buildings** and potential hard stop in the 2040s.
- £450m three year **boiler upgrade scheme** (£5,000/6000 grants for heat pumps and biomass boilers). £60m **heat pump ready programme** to support the target of 600,000 installations per year by 2028.
- Decisions on **role of hydrogen in heating** postponed until **2026**.
- Indicative assessment of the value for money case for **blending hydrogen** by autumn 2022, with a final policy decision likely to take place in **2023**.
- Pledge to **drive down the costs of heat pumps** – cost parity with gas boilers by 2030, with 25 – 50% cost reductions by 2025.
- Commitment to look at options to shift or re-balance energy levies and obligations away from electricity to gas over this decade. **Fairness and Affordability Call for Evidence** to be published, with decisions taken in 2022.



# Biomethane

- [H&Bs](#) Strategy re-iterates commitment to increase the proportion of biomethane in the gas grid in Great Britain through the Green Gas Support Scheme (GGS) .
- *'In the long term, BEIS will explore the development of commercial-scale gasification and a potential biomethane support scheme to replace the GGSS after 2025.'*





# H&Bs consultations – all links

Wider package of policy documents released on same day along with the Strategy:

- [Consultation on phasing out the installation of fossil fuel heating in homes off the gas grid](#)
- [Consultation phasing out the installation of fossil fuel heating systems in businesses and public buildings off the gas grid](#)
- [Market-based mechanism for low carbon heat](#)

Feedback to [Pablo John](#) (REA heat policy analyst).



# A New Biomass Strategy for the UK

***“There is widespread acceptance that biomass, including bioenergy with CSS and energy from waste, has a key role to play in achieving net zero. The question is where and how biomass is best used to deliver on our targets – whether that is for generating electricity or other purposes.”***

BEIS, Government Response to Climate Change Committee 2020 Progress Report to Parliament.

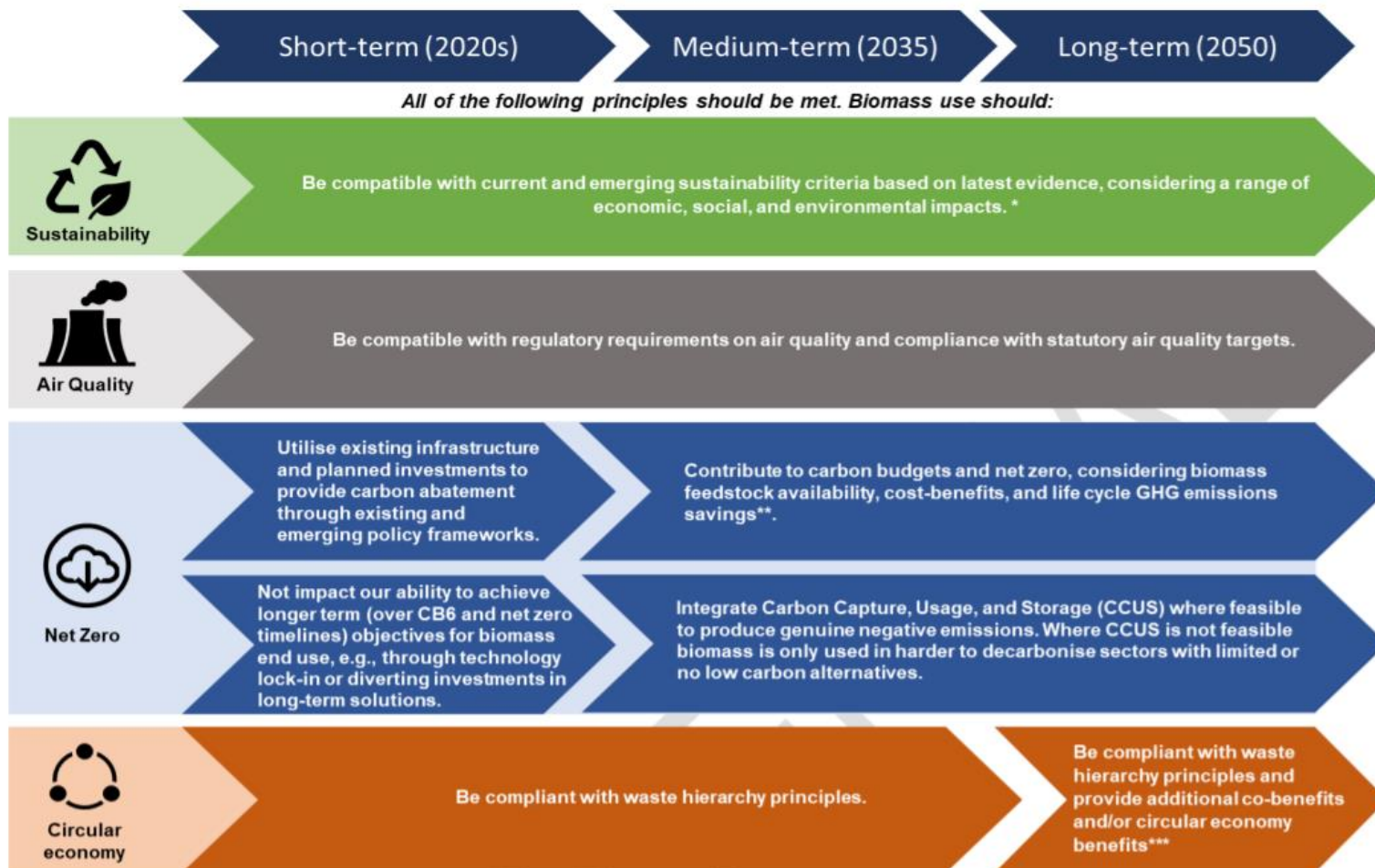


In advance of the publication of its Biomass Strategy which is expected next year, **on 4<sup>th</sup> November** the UK Government published [The Biomass Policy Statement](#) - an initial strategic view on the role of biomass across the economy in the medium- to long-term.

Strategy expected to be released alongside transport fuels policies in Q3/Q4 2022.



# Overarching priority use principles for biomass (UK Biomass Policy Statement, November 2021)



\* Further work is being carried out to review the UK's existing sustainability criteria, including exploring ways to harmonise the criteria across sectors to promote fair competition. Details to follow in the Biomass Strategy.

\*\* Compared to GHG emissions of appropriate counterfactuals.

\*\*\* e.g., by-products are used to make other high value products which can be utilised elsewhere in the economy.



Sector	Key biomass technologies in a low carbon economy (UK Biomass Statement, November 2021, REA interpretation )
<b>Power</b>	<ul style="list-style-type: none"> <li>• Biomass power only with CCS (BECCS)</li> <li>• Energy from waste with CCS</li> </ul>
<b>Heat</b>	<ul style="list-style-type: none"> <li>• Solid biomass and liquid biofuels (e.g. HVOs or bio-LPG) only in hard-to-electrify properties (e.g. rural, off the gas grid) subject to meeting sustainability criteria and air quality rules</li> <li>• Biomethane from AD to decarbonise gas grid in the near term (gas boilers, hybrid heat pumps)</li> <li>• Biomethane from advanced gasification may play a role subject to becoming commercial</li> <li>• Heat networks (biomass CHP, Energy from Waste) to meet 18% of heat demand by 2050</li> <li>• Role of [bio]hydrogen in heating uncertain until 2026 (from advanced gasification or biomethane reformation)</li> </ul>
<b>Industry</b>	<ul style="list-style-type: none"> <li>• Biomass only with CCS (BECCS), or in hard-to electrify applications, subject to meeting sustainability and air quality rules</li> <li>• Biomass use in high temperature fuel switching applications</li> <li>• Biogas used for direct combustion or CHP (where site is off the gas grid)</li> <li>• [Bio]hydrogen from advanced gasification and biomethane reformation</li> <li>• Heat networks (biomass CHP, Energy from Waste)</li> </ul>
<b>Transport</b>	<ul style="list-style-type: none"> <li>• By 2050 all biofuels directed to aviation (hard- to decarbonise), produced with CCS</li> <li>• Sustainable Aviation Fuels used to decarbonise aviation</li> <li>• Gaseous and liquid biofuels still playing a near term, transitional role in road transport (demand expected to decrease with transport electrification, though HGVs may rely on them for longer)</li> </ul>



# Further Updates

## ***UK Innovation Funding***

- Government has committed over £2billion to innovation in areas relating to Net Zero (the [Net Zero Innovation Programme](#)).
- This includes areas from zero emission buses, clean heat schemes to hydrogen, fuel switching and industrial decarbonisation and longer duration energy storage projects.
- Project consortia could be looking for locations or partners for project bids.

## **Government Low-Carbon Funding Opportunities Database**

A comprehensive list of available funding is available from the REA

[Link to REA Innovation Support funding opportunities](#)  
[REA Industrial decarbonisation grid](#)



# What did we expect from COP?



- REA Official Observers to COP26
- Attended numerous plenaries, negotiations, side events, informal meetings and member events.
- However... Most of the UK Government's COP26 related domestic policy changes actually happened In the run up to the event, likely the attention of hosting COP fed into some eye-catching UK policy announcements, and the timing of these.
- For example, end of sales for all new fossil fuel powered cars, vans, & domestic boilers, much more energy efficient new buildings, the end to biodegradable waste being sent to landfill and a commitment to a net zero electricity system, in the next 10-15 years.
- The agreements at COP should feed down into positive changes further down the line domestically and around the world – that is the whole aim – but that will take time and vary by country.





# What actually happened at COP?



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**The Glasgow Climate Pact** commits signatories to:

- **Provide US\$100 Bn Funding to support adaptation efforts in less economically developed countries** by 2023 (this was at the heart of the negotiations);
- The **'Phase down of unabated coal power'** as well as 'inefficient fossil fuel subsidies';
- **Carbon Market rules** (Article 6 of the Paris Agreement), enabling the trading of carbon credits between countries and companies;
- Review Nationally Determined Contributions (NDCs) in 2022, ahead of the Paris Agreement schedule.
- Range of other commitments on deforestation, carbon markets, methane, a just transition.
- One Sun, One World, One Globe commitment on transmission grids and renewables.



# Methane Pledge at COP



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UK 2021

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- The US and the EU have announced a global partnership to cut emissions of the greenhouse gas methane by 2030.
- The Global Methane Pledge aims to limit methane emissions by 30% by 2030 compared with 2020 levels.
- More than 100 countries have signed up to the initiative, first proposed by the US and the EU in September.





# Large businesses pledges at COP



- A third of the UK's largest businesses pledge to end their contribution to carbon emissions by 2050
- Together these firms, including represent a total market capital of £650 billion
- Globally, more than 2,000 companies of all sizes have joined the [United Nation's Race to Zero campaign](#) so far.



# What could this actually mean for renewable and clean tech companies?

1. The **near complete recognition of the need to move away from coal power** and 'inefficient fossil fuel support', that will feed through into investor and financier decision making;
2. **A strengthened rulebook for carbon markets** globally (Article 6 of the Paris Agreement) should see increased confidence in these markets and may create new opportunities for carbon offset schemes (TBC);
3. The results of the various agreements delivered in Glasgow **should feed into more supportive international policy for renewables** in several states around the world in the next few years, in particular the 'One Sun, One World, One Grid' initiative, though this will not be immediate.

All agreements sit outside existing UK renewable support measures, so no immediate consultations on UK policy changes are expected at this time.

Internationally, the level of possible support will come down to the detailed implementation of these initiatives.



*Thank you*

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