THE ASSOCIATION FOR RENEWABLE ENERGY & CLEAN TECHNOLOGY

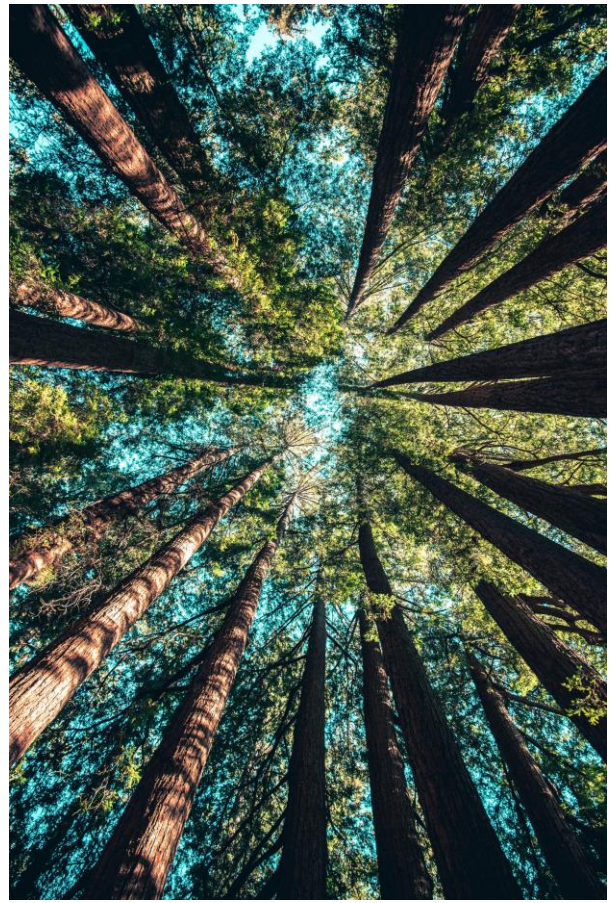
Government Biomass Strategy 2022

Members Roundtable

Webinar, 8th December

Agenda

- Overview of the Governments Biomass Strategy 2022 Announcement
- REA activities welcoming the strategy
- Government’s Starting Position
- Highlighting the REA’s strong position to inform the strategy development.
- Future Engagement Activities Discussion



Aiming for Membership Engagement – Next Steps

- Reviewing Input from this session and further membership engagement
- Taking forward workstreams on biomass supply chain mapping and sustainability criteria
- Forming working group/ panels for engagement with relevant Government departments
- Engaging civil servants in cross industry roundtable discussions in the new year
- Continue MP engagement
- Preparing to respond to consultation expected to accompany the Energy White Paper.
- Ensure workstream as part of broader REA Strategy Work

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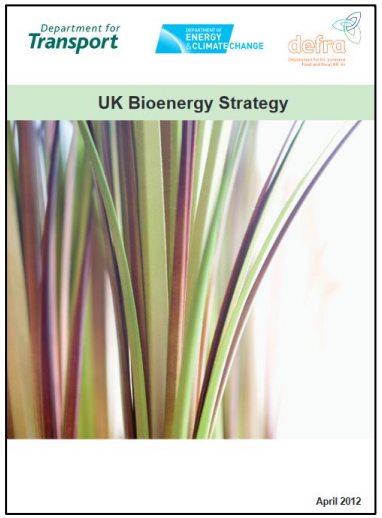
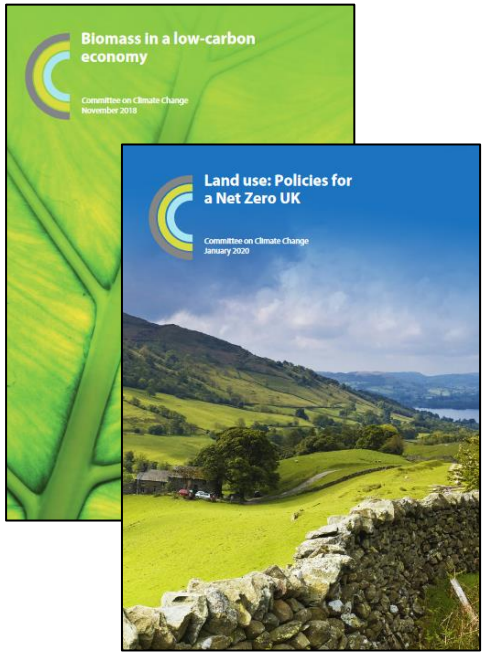
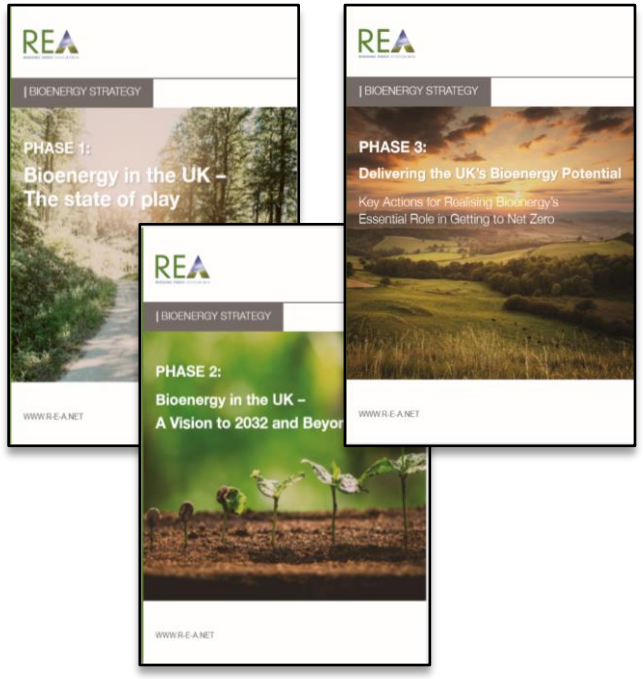
A New Biomass Strategy for 2022

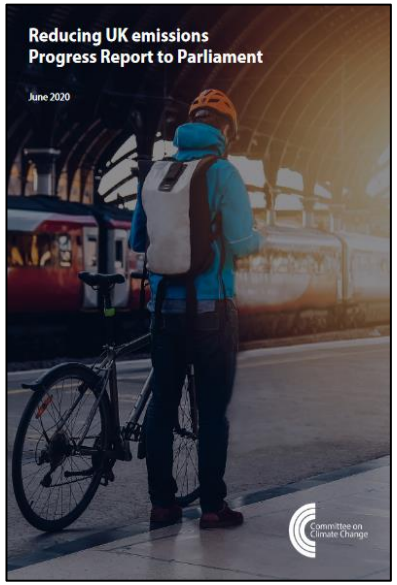
A New Biomass Strategy

"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 Committee on Climate Change 2020 Progress Report to Parliament.









‘Refresh the UK’s Bioenergy Strategy…’

- Consideration of the best-uses of biomass and waste resources to 2050 - Including wood in construction and the wider bio-economy
- Review UK and international governance over biomass feedstocks
- Support schemes, including for CO2 removal and sequestration; aviation biofuels and UK production of Biomass Feedstocks.
- Consider the role of CCS and requirements for CCS-readiness, with dates for when CCS will need to be integrated across biomass and waste facilities.

The Process

Launch Consultation with Energy White Paper

Progress Update in 2021

Published 2022

This will be a ‘cross-whitehall’ workstream

Department for Business, Energy & Industrial Strategy

Department for International Trade

Department for Environment Food & Rural Affairs

Department for Transport

HM Treasury

Other Relevant Government Work Streams

Biomass Strategy however only one workstream that may impact bioenergy sector.
Other relevant workstreams expected in 2021:

- Energy White Paper
- Heat & Buildings Strategy
- England Tree Strategy
- Development of the Environmental Land Management Scheme
- Call for Evidence on Green Gas Removal support mechanisms
- Hydrogen Strategy
- Future Home Standard
- Jet Zero Council
- RTFO Developments
- Launch of CCUS Support Deployment
- Post EU ETS Carbon Pricing
- HMT Net Zero Review
- Government to set 6th Carbon Budget
- DEFRA National Food Strategy
- DEFRA Nature Strategy For England (2022)

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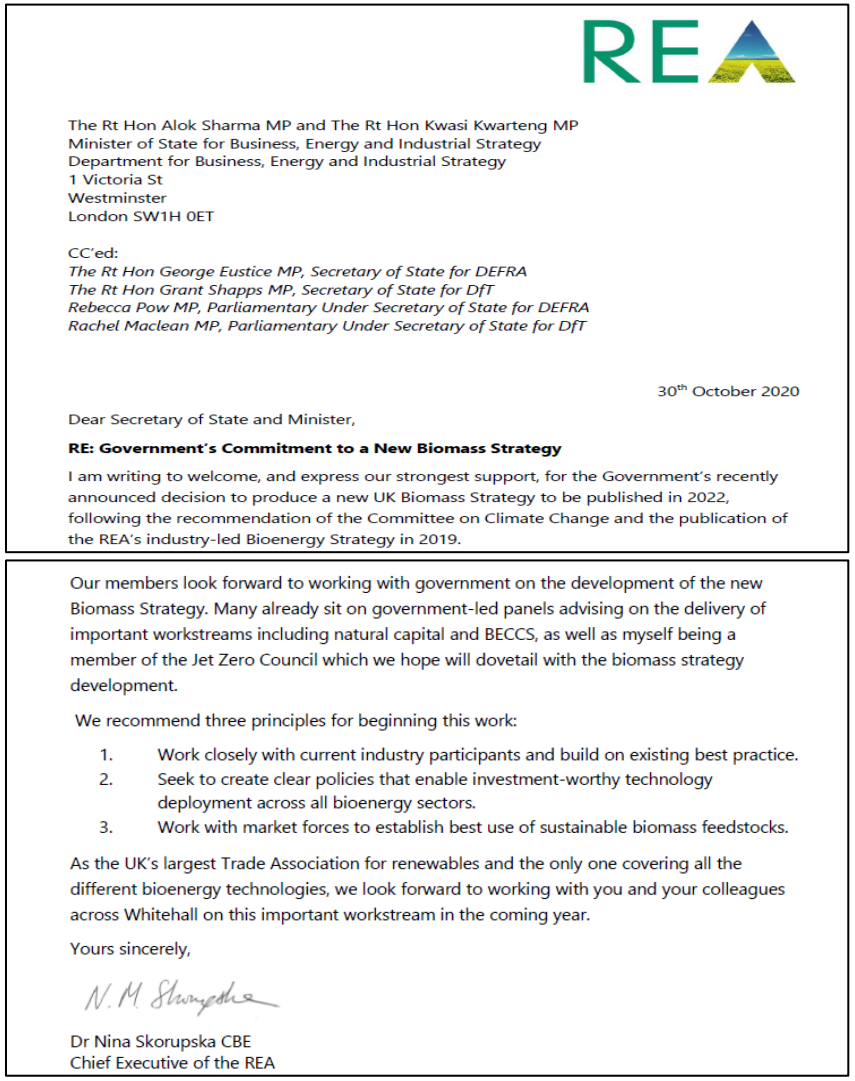
REA Activities Welcoming the Strategy

Early Engagement with Ministers and MPs

Positive responses from 14 MPs to our letter. Meetings being arranged:

Tom Tugendhat,
Jerome Mayhew,
Richard Fuller,
Philip Dunne,
Stephen Flynn,
Lisa Cameron,
Christian Wakeford,
John McNally,
Martyn Day,
Fabian Hamilton,
Amanda Solloway,
Sarah Olney,
Ruth Jones,
Selaine Saxby.

REA Letter to Ministers



REA

The Rt Hon Alok Sharma MP and The Rt Hon Kwasi Kwarteng MP
Minister of State for Business, Energy and Industrial Strategy
Department for Business, Energy and Industrial Strategy
1 Victoria St
Westminster
London SW1H 0ET

CC'ed:
The Rt Hon George Eustice MP, Secretary of State for DEFRA
The Rt Hon Grant Shapps MP, Secretary of State for DfT
Rebecca Pow MP, Parliamentary Under Secretary of State for DEFRA
Rachel Maclean MP, Parliamentary Under Secretary of State for DfT

30th October 2020

Dear Secretary of State and Minister,

RE: Government's Commitment to a New Biomass Strategy

I am writing to welcome, and express our strongest support, for the Government's recently announced decision to produce a new UK Biomass Strategy to be published in 2022, following the recommendation of the Committee on Climate Change and the publication of the REA's industry-led Bioenergy Strategy in 2019.

Our members look forward to working with government on the development of the new Biomass Strategy. Many already sit on government-led panels advising on the delivery of important workstreams including natural capital and BECCS, as well as myself being a member of the Jet Zero Council which we hope will dovetail with the biomass strategy development.

We recommend three principles for beginning this work:

1. Work closely with current industry participants and build on existing best practice.
2. Seek to create clear policies that enable investment-worthy technology deployment across all bioenergy sectors.
3. Work with market forces to establish best use of sustainable biomass feedstocks.

As the UK's largest Trade Association for renewables and the only one covering all the different bioenergy technologies, we look forward to working with you and your colleagues across Whitehall on this important workstream in the coming year.

Yours sincerely,

N. M. Skorupska

Dr Nina Skorupska CBE
Chief Executive of the REA

Department for Business, Energy & Industrial Strategy

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Our ref: MCB2020/35515

6 November 2020

Dr Nina Skorupska CBE
The REA
Brettenham House
2-19 Lancaster Place
London
WC2E 7EN

Dear Dr Skorupska,

Thank you for your correspondence to both myself and the Secretary of State, dated 30 October, about the Government's proposed new UK Biomass Strategy.

The Government has made a commitment to develop and publish a new cross-government Biomass Strategy in 2022. This will consider how Biomass should be sourced and used across the economy to best contribute to our net zero target.

We will set out more details in the forthcoming Energy White Paper and issue a call for evidence. This will be used to inform the Biomass Strategy development in the context of net zero.

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.

Early Engagement With Civil Servants

- The REA Have already engaged with Senior Civil Servants in BEIS who have indicated a wish to engage REA members in the development of the Biomass Strategy.

- The REA have offered to hold cross Whitehall and industry roundtables with our members in the new years

- We have re-circulated the REA's Bioenergy Strategy and offered to conduct briefing sessions.

- REA will further engage with civil servants during the consultation expected shortly.

- We are kicking off work streams looking at mapping out domestic Biomass Feedstocks and Sustainability Governance Discussions

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Understanding Governments Starting Position for the Strategy

CCC – Biomass in a Low Carbon Economy (2018)

"Sustainably harvested biomass can play a significant role in meeting long-term climate targets, provided it is prioritised for the most valuable end-uses".

Conservative view of biomass supply and prioritise as best use:

1) Carbon Capture, including wood used in construction and BECCS
2) Use of bioenergy in hard-to-treat areas – producing hydrogen and aviation biofuel.

In addition:
"Improve UK and international governance over biomass feedstocks. The long-term role of biomass imports to the UK must depend on the success of these efforts."

Hierarchy of best use for sustainable biomass resources

Between now and 2050, the current uses of biomass in the UK need to change:

	Most effective use today	2020s and 2030s	By 2050
Bioeconomy	Wood in construction	Wood in construction, potentially other long-lived bio-based products (within circular economy)	
Buildings	Biomethane, local district heating schemes and some efficient biomass boilers in rural areas		Only very limited additional use for buildings heat: niche uses in e.g. district heat and hybrid heat pumps
Industry	Biomass use for processes with potential future BECCS applications		BECCS in industry alongside other low-carbon solutions
Power	Ongoing use in power sector in line with existing commitments or small scale uses	Demonstration and roll out of BECCS to make H_2 and/or power	Biomass used for H_2 production or power with CCS
Transport	Liquid biofuels increasingly made from waste and lignocellulosic feedstocks	Liquid biofuel transitioning from surface transport to aviation, within limits and with CCS	Up to 10% aviation biofuel production with CCS

Maximising abatement means using biomass to sequester carbon wherever possible (opportunities to do this will increase over time)

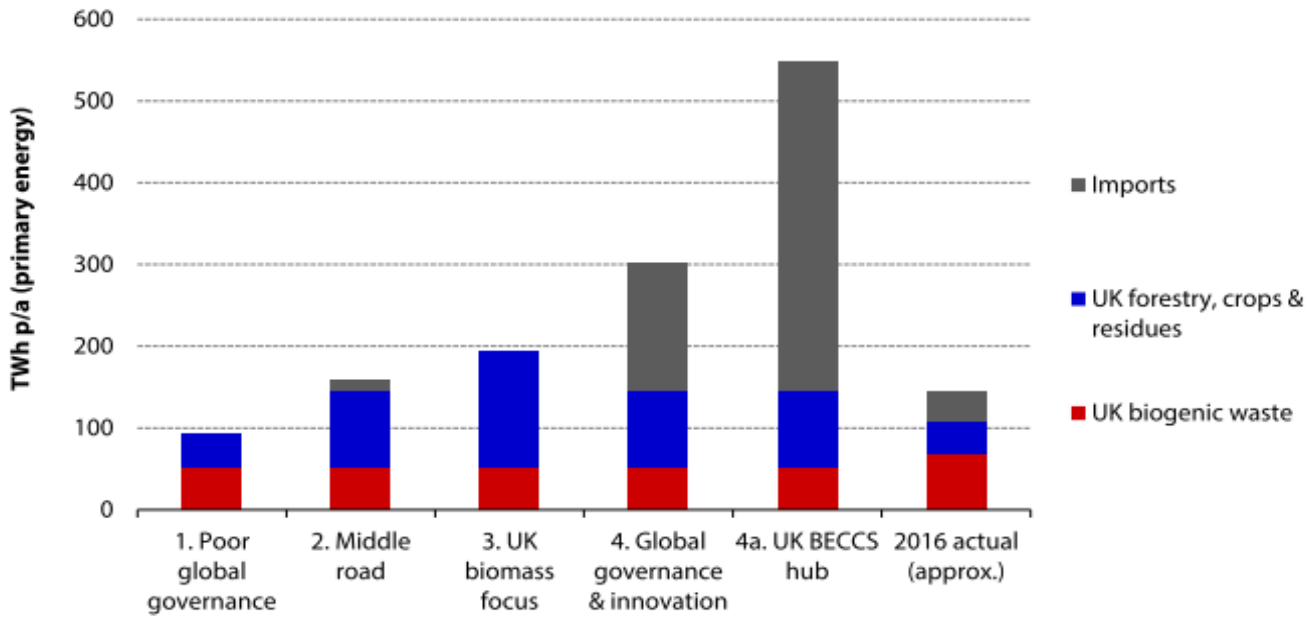
Conservative Scenarios for Biomass Supply

"There is significant uncertainty over the level of sustainable bioenergy resource that could be available to the UK in 2050":

- Depends on levels of tree planting, forestry management and energy crop growth.
- Demand for competing uses
- Availability of biogenic wastes
- Ability to import Sustainably
- Innovation in biomass production.

"We have made cautious but realistic assumptions on bioenergy supply. Our estimates of global bioenergy supply are notably lower than assumed in many of the scenarios assessed by the IPCC" CCC Net Zero

Figure 4.7. Breakdown of overall UK bioenergy resource supply scenarios in 2050



Source: CCC analysis.
Notes: Scenario 2 shows low amounts of imports by 2050. This is because in this scenario the UK's domestic production is almost equivalent to the UK's 'equal share' of the tradable global resource, as defined in our methodology above. This scenario could also involve higher levels of imports that are in large part balanced by UK exports (resulting in low levels of *net* imports).

CCC – Landuse, Policies for a Net Zero UK (2019)

Five key objectives recommended:

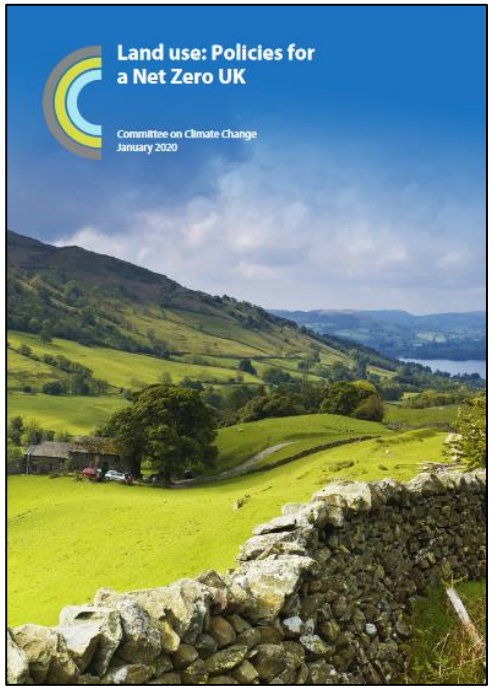
- **Increase tree planting**–increasing UK forestry cover from 13% to at least 17% by 2050 by planting around 30,000 hectares (90 –120 million trees) of broadleaf and conifer woodland each year.

- **Encourage low-carbon farming practices**–such as 'controlled-release' fertilisers, improving livestock health and slurry acidification.

- **Restore peatlands** –restoring at least 50% of upland peat and 25% of lowland peat.

- **Expanding the growing of energy crops** by around 23,000 hectares each year would deliver 2 MtCO2e emissions savings in the land sector and an extra 11 MtCO2 e from the harvested biomass (e.g. when used with CCS).

- **Reduce food waste and consumption** of the most carbon-intensive foods–reduce the 13.6 million tonnes of food waste produced annually by 20% and the consumption of beef, lamb and dairy by at least 20% per person, well within current healthy eating guidelines



Prime Minister 10 – Point Plan

2. Hydrogen investment: A 5GW 'low carbon' hydrogen production capacity target by 2030 – across industry, transport, power and homes, alongside the first 'Hydrogen town' heated entirely by hydrogen. £500m will be allocated to increase production and trial new heating and appliances.

4. ICE Phase out / Electric vehicles: the Prime Minister confirmed that the UK will end the sale of new petrol and diesel cars and vans by 2030.

6. Jet Zero and greener maritime: Research projects for zero-emission planes and ships- a £20m fund

7. Homes and public buildings: An extension of the Green Homes Grant by 12 months, and an end to new homes being connected to the gas grid by 2023, aiming to create 50,000 jobs by 2030, and a headline target to install 600,000 heat pumps every year by 2028.

8. Carbon capture: £200 million of new funding to create two carbon capture clusters by the mid-2020s, with another two set to be created by 2030, with a target to remove 10MT of carbon dioxide by 2030.

9. Nature restoration: Reconfirming commitment to plant 30,000 hectares of trees every year.

Sixth Carbon Budget (2033 to 2037)

CCC set to publish their recommendations for the Sixth Carbon Budget tomorrow. Expected to include:

- Reviewed decarbonisation targets, faster decarbonisation inline with net zero.
- Restated targets for energy crops and bioenergy.
- Prominent role for hydrogen
- Prominent role for BECCS

Where does this leave the Bioenergy Sector today?

	How does the CCC see the Sector Transitioning?
Biomass Power and Energy from Waste	Existing projects will continue to operate, but no new support for projects without BECCS Existing projects likely to need CCUS attached by early 2030s
Biomass Heat	Biomass Boilers play a role in certain niches (for example, hard-to-insulate rural properties where heat pumps are not viable.) Limit support for biomass heat in favour of other low-carbon options
Anaerobic Digestion	Continued role for biomethane produced through anaerobic digestion, helping to decarbonise the grid and support hybrid heating systems. CCUS likely to be mandatory, along with some switching to hydrogen production.
Biofuels	Transition away from surface transport (with possible exemption of HGVs). Focus on aviation fuel primarily by 2050. Possible smaller role in Shipping. Limited role in heating

CCC does not set a clear transition pathway, just where they see the technologies getting to.

Significant gap seems to be around current market status and commercial realities.

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Building on REA Strengths and our Starting Position

Summary of REA Bioenergy Strategy Findings

- Bioenergy has grown rapidly stimulated by enabling policy measures, and already plays a major role in renewables in the UK, but progress is at risk as these measures come to an end.

- Bioenergy can play an essential role in the future low carbon economy, providing 16% of UK energy by 2032, based on established technologies and some new options including BECCS

- This increased bioenergy contribution could lead to GHG savings of over 80 $MTCO_2e$/year by 2032, enough to bring UK emissions back on track. It would also bridge the “clean electricity” gap.

- A range of policy and other actions are needed to enable this growth of sustainable bioenergy including specific sectoral support measures in heat, transport and the electricity sectors, and supporting the development of BECCUS

- These measures should be complemented by a progressive increase in carbon prices across the energy economy; reaching £70-80/t CO2 by 2026, and over £120 by 2032.

Emphasising the importance of existing sectors

- Expand contribution to immediate carbon savings based on recognized and affordable technologies with significant other benefits. ‘No regrets’ option with Immediate GHG emissions reductions in heat, transport and power sectors using established technologies, often lowest cost options in their sector.

- Provide forward pathways towards technologies likely to be needed in long term future.

- Supports wider low carbon strategy by reducing the 72 TWh gap in low carbon electricity generation
  - Providing non-electricity low carbon solutions for heat and transport, reducing pressure on low carbon electricity generation and distribution
  - Biopower provides low cost, financeable alternative to nuclear power with no long-term waste disposal issue

- Stimulates forest management and planting energy crops.

- Lays the ground for wider bioeconomy in terms of key enabling technologies, supply chains, sustainability governance

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Discussion – REA Actions to inform the Governments Biomass Strategy

Questions for Discussion

1. What are the key areas of support for the Government's Approach?
2. Concerns around governments approach.
3. Suggested areas for further evidence collection.
4. Suggested activities for strategic engagement.
5. Any other comments.

We will EasyRetro to provide feedback. **Link will be provided in the Chat Box**.

https://easyretro.io/publicboard/gubzonnpaaRIFJRY8mqYykvgc6I3/35f32f87-5b0b-431f-a4a9-756a7b523285

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Thank You

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