

# The future of carbon removals: how to set the right EU standards?

11<sup>th</sup> October 2023

5<sup>th</sup> Biomass PowerON

Stockholm, Sweden

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**Bi**energy  
EUROPE

#bepartofbioenergy



# About Us



**Common voice** of European bioenergy since 1990



Unites more than **40 associations** and around **150 companies**



Hosting the **European Pellet Council (EPC)**



Quality & Sustainability **Certifications**

**BiOenergy**  
EUROPE

## Our Services:



**EU Policy Monitoring & Influence**



**Market Data**



**Visibility**



**Networking**



**Free & Discounted Events**

# Our Members

\*as of August 2023

## Companies



## Associations



## Academia



# Our Working Groups

Members Only



## Pellets

Next Date: H1 2024 (TBD)

Main topics: updates on European and global pellet markets (residential, commercial, industrial); pelletization technologies; agropellets and advanced pellets; communication and promotion of pellet usage



## Competitiveness

Next Date: 16 Nov 2023

Main topics: policy files affecting the competitiveness of bioenergy sector within the EU (e.g. carbon tax, state aid, RePowerEU, Net Zero Industry Act, etc.)



## Agro-biomass

Next Date: 17 Oct 2023

Main topics: markets and emerging initiatives for the use of agricultural residues, agro-industrial residues and energy crops; interconnections between agriculture & energy policy files



## Sustainability

Next Date: 31 Oct 2023

Main topics: EU legislation impacting the sustainable mobilization of biomass feedstocks for energy production, e.g. RED II, RED III, Taxonomy, etc.



## Wood Supply

Next Date: H1 2024 (TBD)

Main topics: markets for wood fuels (e.g. wood chips, sawdust, firewood, etc.); market and policy factors affecting wood supply; forest management & interaction with wood fuels markets



## Domestic Heating

Next Date: H1 2024 (TBD)

Main topics: policy files related to biomass use for the domestic heating sector, such as building regulations, air emissions, Ecodesign and Ecolabelling regulations for biomass stove & boilers



## Carbon Removals

Next Date: 8 Nov 2023

Main topics: policy files regarding negative emissions (e.g. carbon removals certification framework); technologies and projects for carbon removals from biomass (e.g. BECCS and biochar)



## Task Force National Advocacy

Next Date: TBD

Scope: enhance cooperation between Bioenergy Europe and National biomass associations for more effective advocacy on EU and national levels

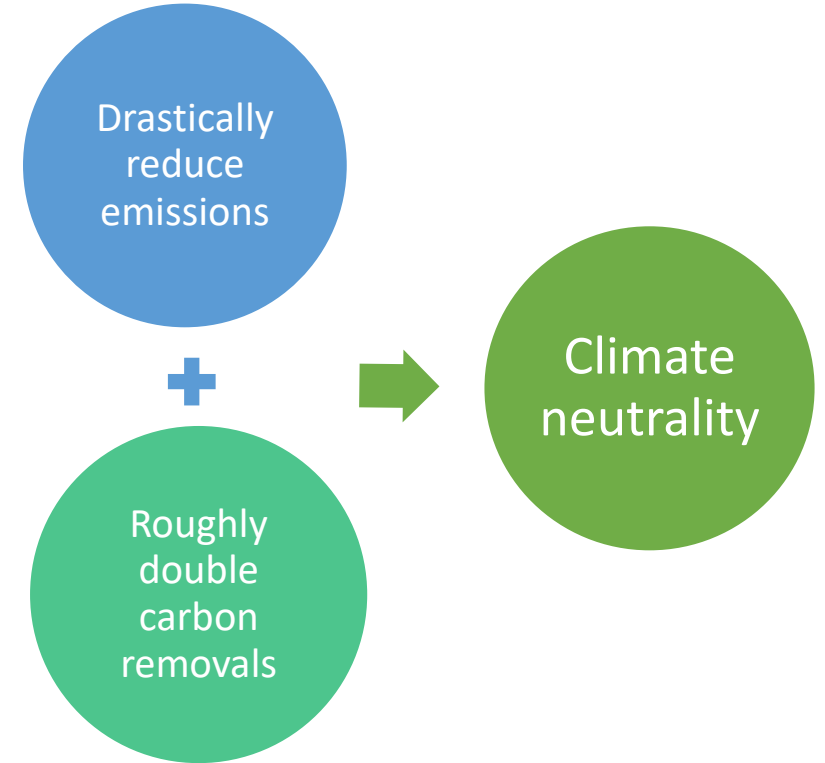
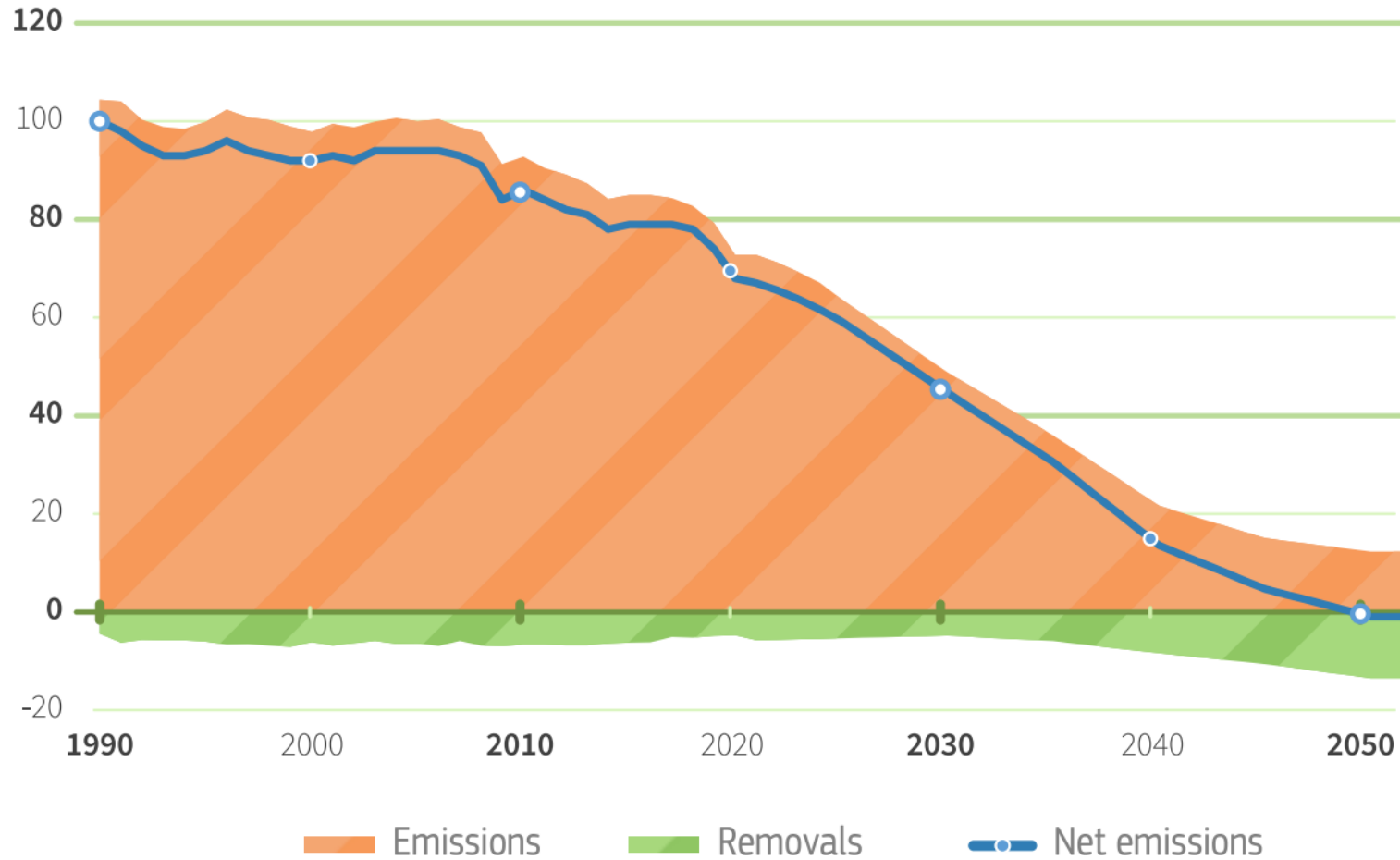


## Task Force Communications

Next Date: TBD

Scope: share experiences and coordinate efforts on issues related to bioenergy communication for policy makers, stakeholders and the general public

# Context



## Climate Law

- EU objective of **climate neutrality** by 2050 and net removal thereafter

## Land Use, Land Use Change and Forestry (LULUCF) Regulation

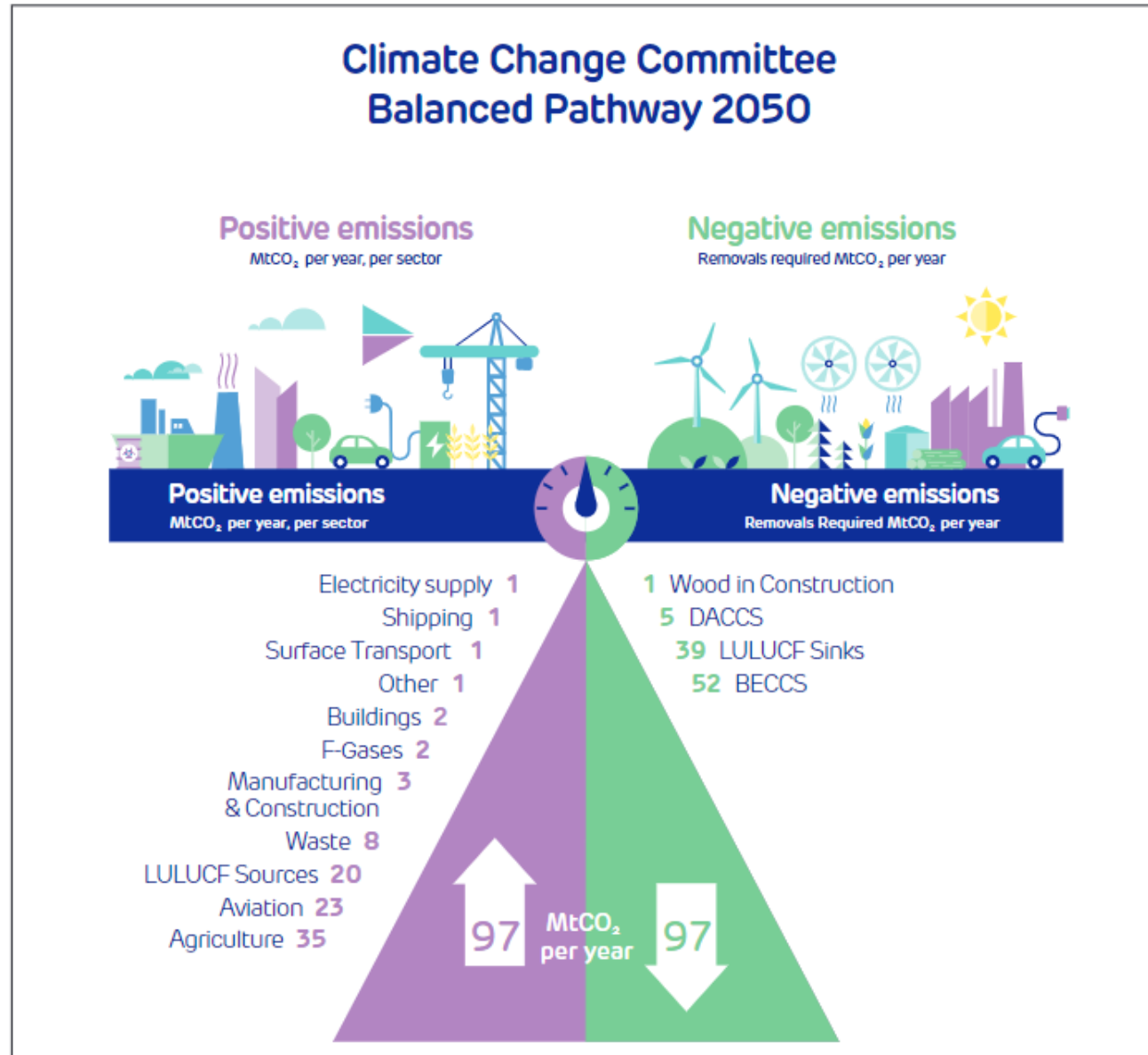
- ambitious target for net carbon removals in soils, forests and wood products: **-310 MtCO<sub>2</sub> by 2030**

## Communication on Sustainable Carbon Cycles

- roadmap to enable carbon removals:
  - **carbon farming** should contribute to 2030 target for LULUCF
  - **industrial solutions** should remove at least -5 MtCO<sub>2</sub> in 2030

# Role Of Bioenergy in the Decarbonisation

- In 2019, EU-27 emissions were 3 610 MtCO<sub>2</sub>
- Even if we sharply reduce emissions, some sectors will be hard to abate
- Agriculture, Aviation, Industry will likely continue to have some emissions



- To balance these emissions, carbon will have to be removed
- One projection shows that **50% of needed carbon removals could come from BECCS**

# IEA Net Zero Scenario: Bioenergy demand

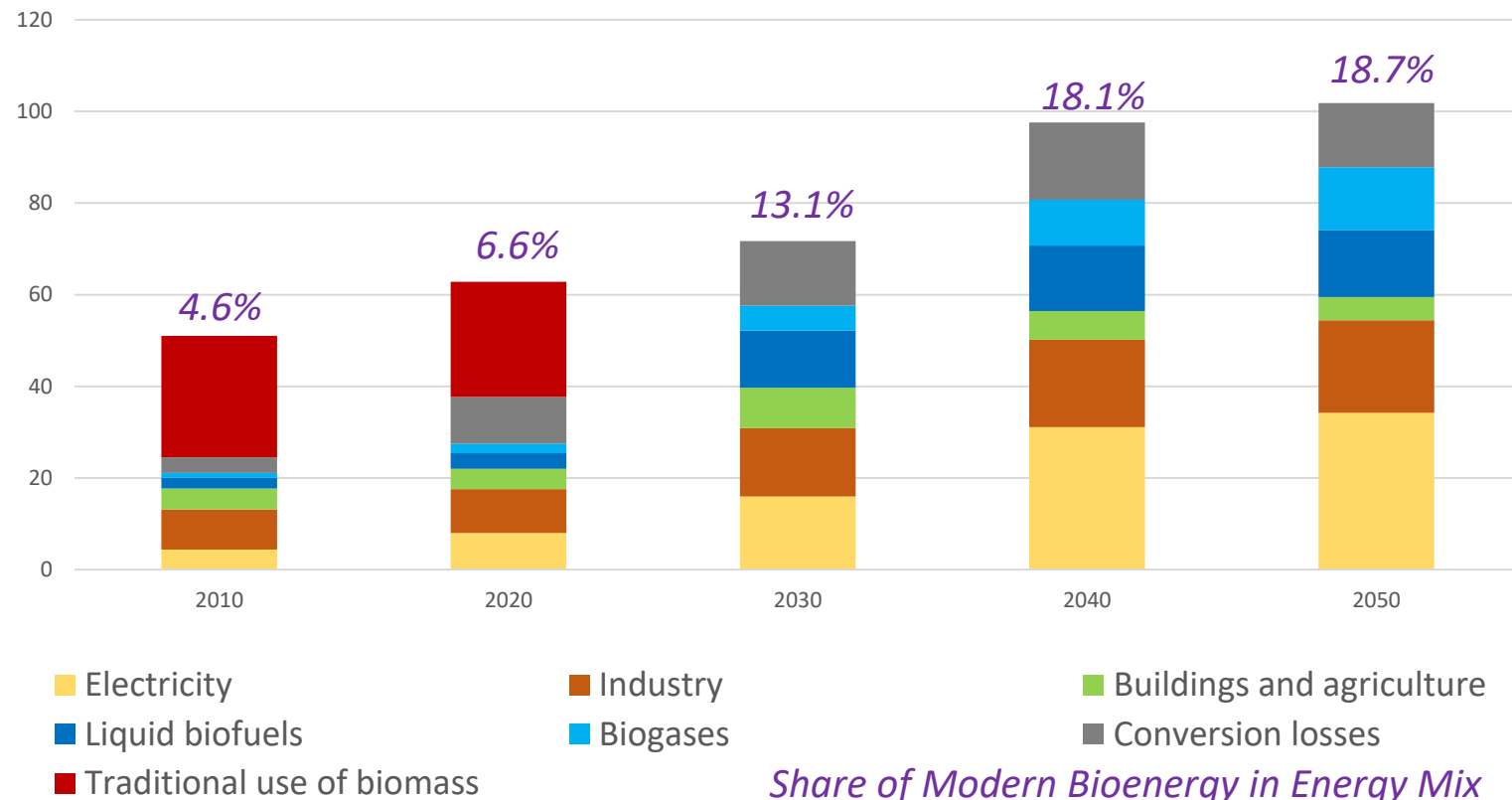
Although bioenergy increases, it stays within lowest estimates of sustainable biomass availability

Bioenergy versatile, storable, and dispatchable energy; key for balancing intermittent renewables

By 2050, predicted 10% of all bioenergy will use BECCS, estimated 1.3 billion tons of CO<sub>2</sub>

Most BECCS in biofuels (45%), electricity (40%), and remainder in heavy industry (15%)

Bioenergy demand in the IEA Net Zero Scenario, 2010-2050 (EJ)





## MAIN GOALS OF THE PROPOSAL



**Accelerate** the deployment of verifiable, **high-quality carbon removals**



Encourage industries, farmers and foresters to adopt **effective carbon removal solutions**



**Counter greenwashing, focus on high quality removals and build trust** by focusing on trustworthy removals



Ensure the EU's capacity to **quantify, monitor and verify** carbon removals



Stimulate a wide variety of result-based **financing options by private or public sources**

Carbon can be removed and stored in three broad ways:



**Carbon farming**, such as restoring forests, soils, and management of wetlands and peatlands



**Permanent storage**, such as bioenergy with carbon capture and storage, or direct air carbon capture and storage



**Carbon storage in long-lasting products and materials** such as wood-based construction



**Capture of fossil carbon for Storage (CCS) or Utilisation (CCU) is not covered:** these technologies help to recycle or store new fossil CO<sub>2</sub> emissions, preventing that they add to CO<sub>2</sub> already in the atmosphere, but do not remove carbon from the atmosphere

# Criteria for an EU Certification System

The EU certification framework can only be used to certify carbon removals that meet the following **QU.A.L.ITY** criteria



## **Quantification**

Carbon removal activities are measured accurately and deliver unambiguous benefits for the climate



## **Additionality**

Carbon removal activities go beyond standard practices and what is legally required



## **Long-term storage**

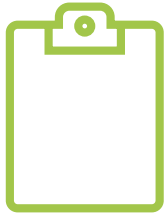
Certificates clearly account for the duration of carbon storage and distinguish permanent storage from temporary storage



## **Sustainability**

Carbon removal activities must support sustainability objectives such as climate change mitigation and adaptation, biodiversity, circular economy, water and marine resources

# How will this work in practice?



- an operator applies to a certification scheme approved by the Commission.



- an independent certification body carries out periodic audits of the carbon removal activity to verify the compliance with the Q.U.A.L.I.T.Y criteria and, if positive, it issues a certificate of compliance.



- the certification scheme registers the certificate and certified 'net carbon removal benefit' generated by the carbon removal activity in a public registry.

# Role of the Expert Group on Carbon Removals

June 2023



## Meeting on carbon farming methodologies

- Soil
- Forest
- Peatlands

Sep/Oct 2023



## Meeting on industrial removals

- Permanent storage
- Long-lasting carbon storage products

Oct/Nov 2023



## Meeting on certification process

- Certification schemes
- Third-party verification
- Registries

Q4 2023 or Q1 2024



## Meeting for 2024 work program

- Report on best practices

- The Expert Group comprises of around **70 members**, securing a broad and equitable representation of independent experts and stakeholders from national authorities, public entities, businesses, industry, non-governmental organisations, certification bodies and research institutions in the field of carbon removals.

- **The framework itself - certification criteria and rules - will be worked on by the European Parliament and the Council.**

- **The EU Commission, and its Expert Group, will instead focus entirely on defining the right carbon dioxide removal methodologies.**

# The EU Decision-making Process

**EC** - Represents the EU's general interests and submits legislative proposals



Co-legislators



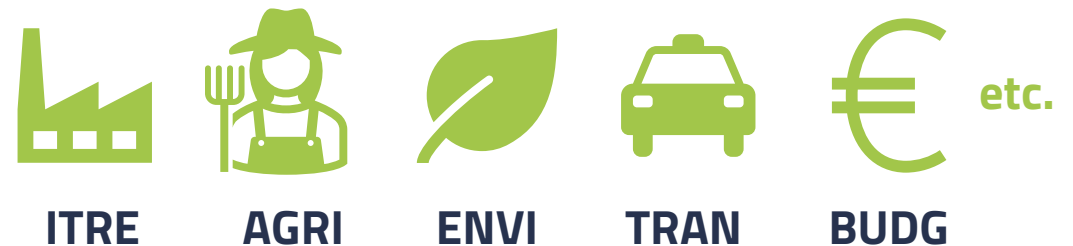
**Council** – Ministries from EU Member States meet under different thematic groups. Work is coordinated under a rotating presidency with each country leading the Council for 6 months at a time



**EP** - The files are shared among political groups, they first go through the Committees and then then are voted on by the full Parliament (Plenary). Most work in is concentrated with just a handful of MEPs, the rapporteur (person holding the pen and writing reports), shadow rapporteurs, and rapporteurs for opinion.



Once the Council and Parliament approve the same text, it becomes law and is published in the Official Journal



# Key players in the European Parliament

## LEAD COMMITTEE: ENVI – Environment, Public Health and Food Safety



Lidia Pereira  
PT, EPP



Hlaváček,  
CZ, RE **renew europe.**


AGRI:  
Agriculture  
and Rural  
Development

ITRE:  
Industry, Research  
and Energy



Buşoi  
RO, EPP 



Wölken  
(DE, S&D) 



Wiesner  
(SE, RE) **renew europe.**




Niinisto  
(FI, Greens) 




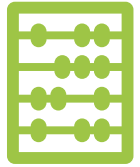
Griset  
(FR, ID) 



Zalewska  
(PL, ECR) 



Wallace  
(IE, GUE/NGL) 



- Welcome the aim to **minimise administrative burden**, also by developing standardised approaches for the different technologies – including BECCS.



- The **purpose of certification is unclear**. No mention of the incentive/market framework/business model for engineered carbon removals. The integration with EU ETS should be considered in the longer run.



- Number and scope of **delegated and implementing acts should be minimised** to ensure that political questions are not being left solely to the Commission



- **Focus on maintaining regulatory coherence is crucial** – EU ETS, Renewable Energy Directive, CCS Directive etc.



*g) 'permanent carbon storage' means a carbon removal activity that, under normal circumstances and using appropriate management practices, stores atmospheric or biogenic carbon for several centuries, including bioenergy with carbon capture and storage and direct air carbon capture and storage;*

- This definition should be more inclusive to **allow the inclusion of biochar carbon removal (BCR)**.
- BCR represents a durable and permanent CDR technology that can sequester carbon for thousands of years.
- The European Commission's own impact assessment already included a detailed analysis of biochar so the latter should be taken into account



# Article 7 Sustainability: Criteria Should Be Harmonised

A carbon removal activity shall have a **neutral impact on or generate co-benefits** for all the following sustainability objectives:



- a) *climate change mitigation beyond the net carbon removal benefit referred to in Article 4(1);*
- b) *climate change adaptation;*
- c) *sustainable use and protection of water and marine resources;*
- d) *transition to a circular economy;*
- e) *pollution prevention and control;*
- f) *protection and restoration of biodiversity and ecosystems.*

- Article 7.1 should use the same wording as Article 3 of the Taxonomy Regulation (EU 2020/852): ***b) does not significantly harm any of the environmental objectives*** set out in Article 9 in accordance with Article 17;
- Article 7.2 which aligns with the delegated acts in Article 8 should prevent any overlapping or conflicting requirements for sustainable bioenergy production contrary to REDIII.



- **ENVI Committee (Lead)**

- The ENVI Committee will hold a vote on the Report. This vote on the adoption of the ENVI Report has been provisionally scheduled to take place on **24 October 2023**.
- Once adopted by the ENVI Committee, the Report would be tabled for adoption in the plenary session of November.

- **AGRI Committee (Associated)**

- The AGRI Committee adopted its Opinion on the CRCF. The vote on the adoption of the AGRI Opinion took place on **30 August 2023**.

Shadow Rapporteurs: MEP Colm Markey (EPP, Ireland) / MEP Achille Variati (S&D, Italy) / MEP Pär Holmgren (Greens/EFA, Sweden) / MEP Gilles Lebreton (ID, France) / MEP Zbigniew Kuźmiuk (ECR, Poland) / MEP Luke Ming Flanagan (GUE/NGL, Ireland)

- The Council's Working Party on the Environment is scheduled to discuss a compromise text on the proposal for a Regulation establishing a Union certification framework for carbon removals
- The Environment Council is provisionally scheduled to discuss the proposal and possibly adopt the General Approach on **18 December 2023**.



Brussels, 12 June 2023  
(OR. en)

10384/23

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Interinstitutional File:  
2022/0394(COD)

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LIMITE

CLIMA 277  
ENV 648  
AGRI 308  
FORETS 67  
ENER 340  
IND 301  
COMPET 593  
CODEC 1065

#### NOTE

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From: General Secretariat of the Council  
To: Delegations  
Subject: Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a Union certification framework for carbon removals  
- Presidency compromise text

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With a view to the meeting of the Working Party on the Environment (WPE) on 16 June 2023, delegations will find attached a first Presidency compromise text on the abovementioned proposal, prepared by the Presidency based on discussions in the WPE and written comments received from delegations so far. Please note that the text also contains some suggestions for changes of a legal/linguistic and technical nature. The changes suggested by the Presidency to the initial Commission proposal are marked as **bold underlined** (added text) or ~~strike through~~ (deletions).

- Undertake an assessment of the need for negative emissions per economic sector and per country.
- Set ambitious targets for technological removals based on their assessment.
- Provide stronger policy support and market incentives for the development and deployment of BECCS technologies.
- Further support demonstration projects that showcase the viability and effectiveness of BECCS.
- Define and distinguish land-based removals and technology-based permanent removals to properly acknowledge the difference in permanence of different removal types and ensure the development of the technological removals sector.
- Foster collaboration between governments, industry players, research institutions, and civil society organizations.

» Save the Date!

# European Bioenergy Future

28 - 30 November 2023  
Brussels, Belgium

**BIOENERGY**  
INTERNATIONAL

Hosted by:

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EUROPE



**EUROPEAN  
BIOENERGY  
FUTURE  
2023**

# Thank You!

