

CCSA Greenhouse Gas Removal (GGR) Task Subgroup

12/03/2025
14:00 (GMT)



Agenda

	Time	Topic	Speaker
1.	14:00	Introduction & CCSA competition law policy notice	Greg Williams (convenor)
2.	14:05	GGR Flex Standards Overview and Q&A	Sheetal Marathe (BSI)
3.	14:20	Carbon Budget 7 Summary	CCSA Secretariat
4.	14:25	Independent Review of GGRs	Greg Williams / All
5.	14:35	GGR Ministerial Roundtable Recap & Discussion on next steps	CCSA Secretariat / All
6.	14:55	DESNZ GGR Industry Group Meeting Recap	All
7.	15:10	New CCSA Working Group Structure & discussion on 2025 priorities	CCSA Secretariat / All
8.	15:25	AOB, next steps and next meeting date	Greg Williams (convenor)

House keeping & Introductions

- Slides & Recording will be available for members after the meeting.
- CCSA Competition Law Policy notice is attached to the meeting invite and available on the CCSA website.
- If you are not speaking, please mute your microphone.
- Please **raise your hand** if you wish to comment, you will be invited to come off of mute, if you can also turn on your camera.
- Please also pose any **comments in the chat** and these will be picked up by the secretariat.
- **Introductions** of any new members joining the call.

GGR Flex Standards Overview

Sheetal Marathe (BSI)



GGR Standards Programme

Dr. Sheetal Marathe



Background

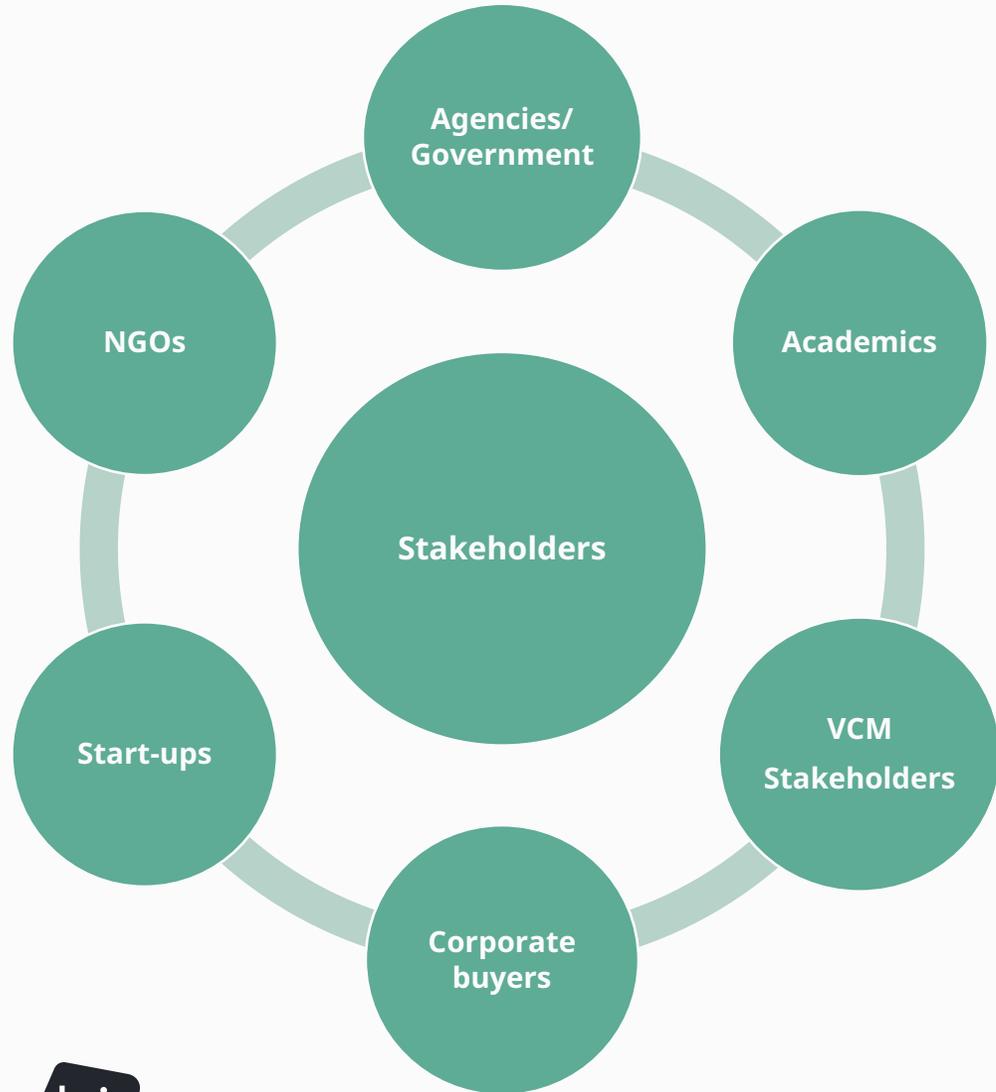
In the GGR Business Model Update, published December 2023, DESNZ announced the government's intention to develop the methodologies that greenhouse gas removal (GGR) projects supported by government need to meet. In the first instance this will be under the GGR and Power BECCS business models as well as the Waste ICC Business Model, subject to projects meeting GGR eligibility criteria including additionality.

- The objective of this programme is to support GGR policy objectives by developing standards which support GGR methodologies:
 - Bioenergy with carbon capture and storage (BECCS)
 - Direct air carbon capture and storage (DACCS)
- The standards would enhance carbon credit consumer confidence, contribute to addressing climate change and support GGR technology innovation.

GGR Standards

- Deliver **high integrity net removal** carbon credits
- Support projects' participation in the **Voluntary Carbon Market** as well as in the UK ETS in the future, including consideration of relevant policy developments on wider market.
- To meet relevant international good practice requirements. In addition to international compliance markets such as **CORSIA**, this should include meeting the requirements set out by the ICVCM in the **Core Carbon Principles Assessment framework** as a minimum, as well as relevant ISO standards regarding carbon emission accounting.
- **Ensure emission reductions** are accounted for separately and not conflated with removals.
- In line with the **parity principle**, apply the same level of robustness to all GGR technologies across the different methodologies and the same quantification rules where possible.
- Align with **existing government regulations** and precedents, as well as developing policies relevant to both GGR projects and participation in high integrity VCMs and potentially the UK ETS.

Stakeholder types



GGR Standards Programme

- **Phase 1 – Minimum Quality Thresholds (Flex)**
- **Phase 2 – Detailed/Full methodologies (PAS)**

There are two potential additional phases

- **Phase 3** - Expansion to non-CCS enabled technologies
- **Phase 4** - Update to Phase 2 methodologies

Scope of GGR Flex standard – BECCS (Phase 1)

This BSI Flex specifies requirements for quantifying, monitoring and reporting activities in the design and operation of bioenergy with carbon capture and storage (BECCS) greenhouse gas removal (GGR) projects.

NOTE - This BSI Flex is intended for use in the UK, and could also be used to inform the methodologies used to assess and credit carbon removal in other parts of the world.

This BSI Flex covers **minimum quality thresholds** that apply to the quantification of net removals for the purposes of:

- GHG project assessment prior to GHG project development (ex ante); and
- GHG project performance evaluation and monitoring and reporting during GHG project deployment (ex post).

GGR Flex standard – out of scope (Phase 1)

This BSI Flex does not cover:

- methods for capturing atmospheric CO₂ other than engineered systems at a fixed location that use chemical separations to remove CO₂ from ambient air at high concentrations;
- methods for storing captured atmospheric CO₂ other than permanent storage in geological formations; or
- methods for utilizing captured atmospheric CO₂, e.g. as a chemical feedstock to produce products or materials with short lifetimes.

GGR Phase 2 (July 2025 onwards)

Topics to be addressed in a future 'methodology' standard

The areas not covered within these standards in Phase 1 that are to be addressed in a methodology standard include:

- eligibility principles for projects – specifically 'accuracy', 'additionality', 'transparency' and 'environmental and social safeguards';
- monitoring and measurement of net removals by projects – including monitoring energy flows, material flows, CO₂ flows and emissions from CO₂ transport, injection and storage; monitoring and measurement of other sources of project emissions; and monitoring and measurement of leakage emissions;
- uncertainty management by projects – sources of uncertainty and how they are reflected in the quantification of removals; and
- biomass sustainability/traceability in relation to project activities.

How to get involved?

- Stakeholder consultation for the Phase 1 Flex standards
 - End of March (4 weeks)

For further details: [**Sheetal.Marathe@bsigroup.com**](mailto:Sheetal.Marathe@bsigroup.com)

Thank you



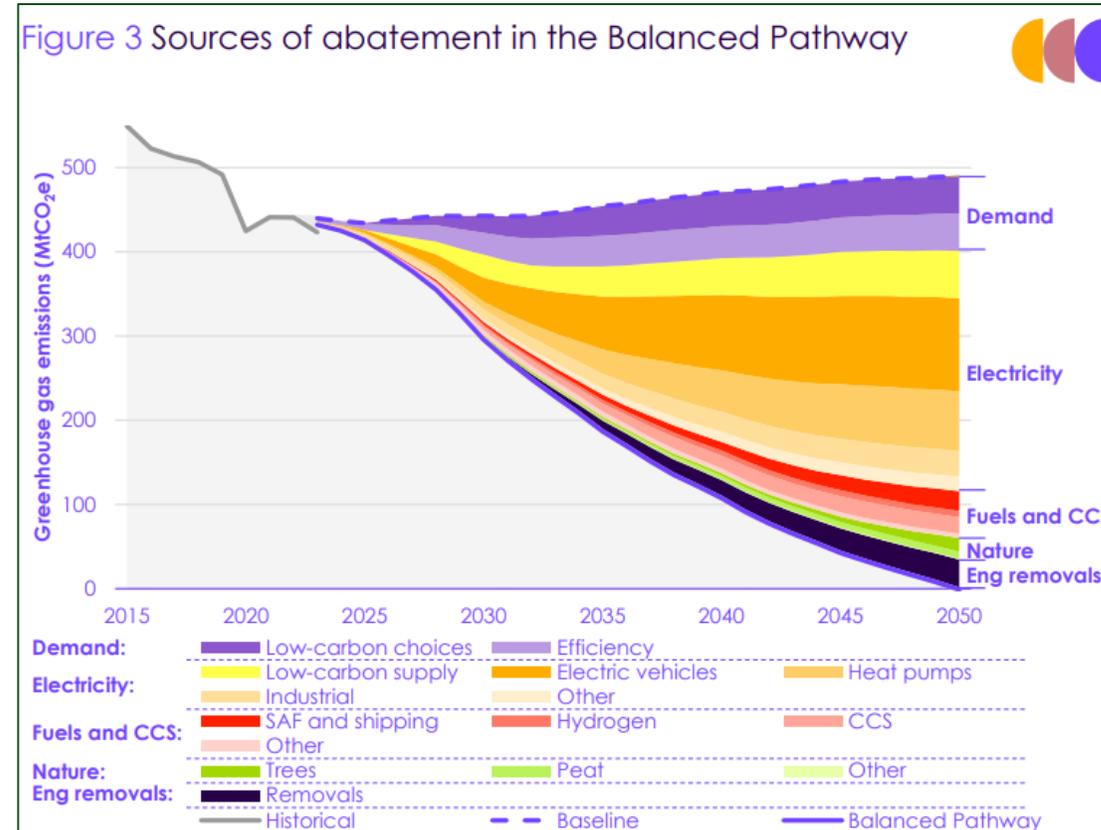
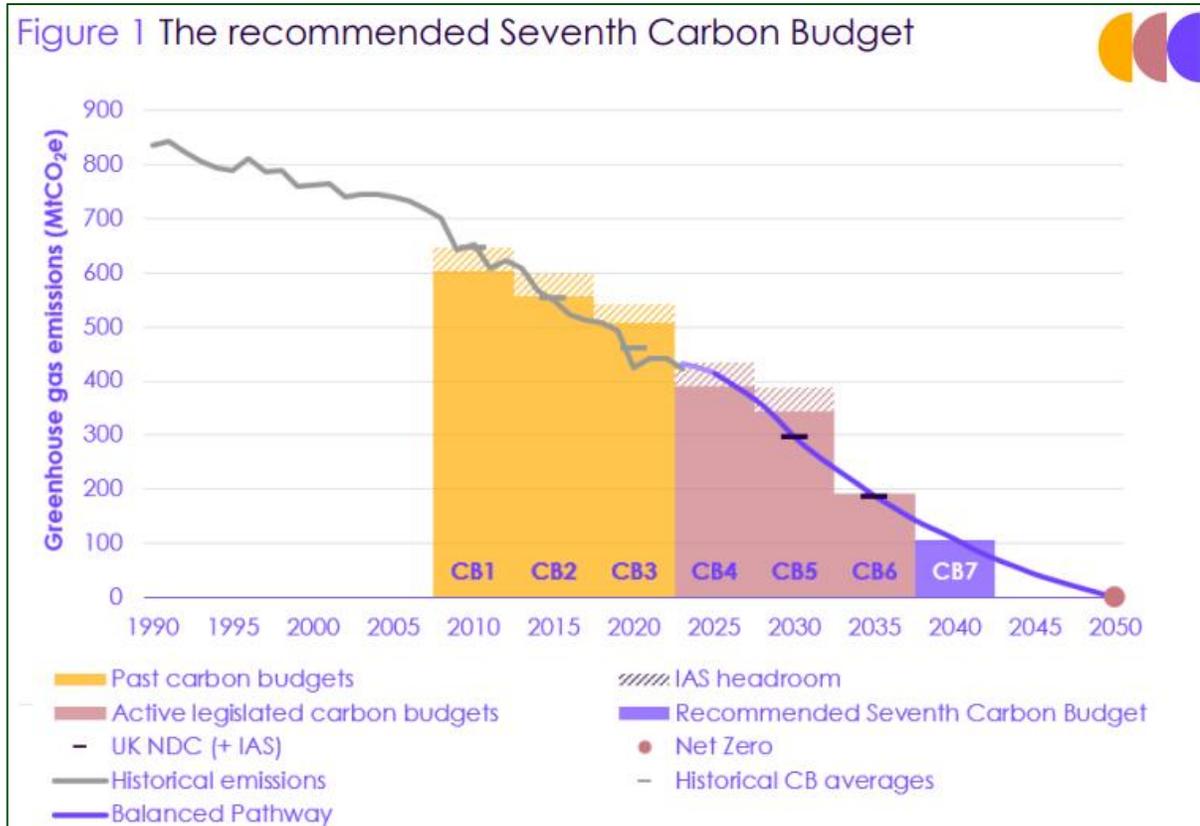
Carbon Budget 7 Summary

Max Musing (CCSA)



CCC CB7 - Overview

- The CCC’s recommended limit on the UK’s GHG emissions for this five-year period is **535 MtCO₂e**. *“an ambitious target ...but it is deliverable, provided action is taken rapidly”*.
- CB7 is delivered through 5 routes; electricity, low-carbon fuels and carbon capture and storage (CCS), nature, engineered removals, and demand. Critically, CCS is a key enabler of delivering CB7 across 3 of these 5 routes and the CCC state that they **“cannot see a route to Net Zero that does not include CCS”**.



CCC CB7 – Overview

73 MtCO₂ pa of CCS by 2050

- There is a positive recognition of the long-term role of power CCS and H2P in a low-carbon, secure and cost-effective energy system. *However, the 2030 number appears conservative when compared to the capacity of projects ready to deploy during this timeframe.*
- CCS represents 17% of the emissions reduction for the industrial sector by 2040. CCS will be used in industrial subsectors with process emissions – noted as cement, lime and chemicals.
- The CCC note that the optimal balance of choices across low-carbon fuels is not yet clear.

	Unit	BALANCED PATHWAY FIGURES			
		2030	2035	2040	2050
Low-carbon dispatchable (Gas CCS & hydrogen to power (H2P))	GW	3	8	15	38
Industrial emissions captured and stored with CCS (cement, lime, chemicals)	MtCO ₂ e/yr	1.4	4.2	6.7	9.2
Industrial energy use supplied by hydrogen	Percentage	2%	3%	5%	8%
EfW plants with CCS	Percentage	22%	47%	80%	100%
Low-carbon hydrogen production: methane reformation with CCS	TWh	11	14	26	29
Engineered removals	MtCO ₂ e/yr	-2.6	-12.7	-21.3	-35.8

Engineered Removals

- Engineered removals contribute 6% of emissions reduction by 2040.
- Projected to start contributing around 2028.
- Engineered removals and low-carbon fuels are the least cost-effective measures included in the Balanced Pathway.
- However, the total level of BECCS is around 50% lower in 2050 than modelled in the CB6 advice, driven by:
 - A lower level of economy-wide residual emissions and higher levels of other removal technologies relative to CB6.
- Along with the recommendation to finalise business models for engineered removals, there is a clear recognition of the long-term role of GGRs, especially BECCS and DACCS.*

Waste

- By 2040, 80% of EfW plants have CCS, rising to 100% by 2050 – a shift from 100% by 2040 in CB6 advice.
- CCS at EfW plants accounts for 25% of waste sector emissions reductions in



GGR Updates



Independent Review of GGRs

- Announced in February 2025 as part of transitional mechanism for biomass generators.
- Will **inform how GGR technologies can assist in meeting the UK's net zero goals.**
- Current understanding is that this will **not** affect ongoing work in terms of GGR deployment, business model development or spending review.
- Will contribute to DESNZ building a robust evidence base for 2035 onwards regarding GGR technologies' deployment pathway and Carbon Budget 7.
- Timeline: to be finalised within a year.
 - Terms of Reference currently being drafted.

GGR Ministerial Roundtable Recap

- DESNZ-led Roundtable with Minister Jones took place on **27 February 2025.**
- **What was discussed:**
 - GGR Business Model & Positive Industry Engagement
 - Role of National Wealth Fund
 - Removals Market: VCM & Compliance
- **Key Questions:**
 - Benefits/opportunities of the UK being a first mover.
 - Need to demonstrate size & value of market.
 - There is clear interest from VCM/offtakers but need faster progress.
 - Infrastructure/supply chains need to be in place.
 - Need process and certainty around timescales.
 - GGR independent review must not delay allocation of projects.

Next Steps:

- What analysis can be done to demonstrate value/size of the market?
- How can we evidence the VCM interest and how will this develop over time?
- What supply chains elements are specific to GGRs in the UK?
- Is there ongoing/completed work already out there that you are aware of?
- How do you envisage the role of the National Wealth Fund?
- What other organisations should be consulted/contacted?



Summary of the GGR Industry Group Discussion



Inflation & Indexing

- DESNZ minded to index the GGR BM strike price to the Consumer Price Index (CPI).
- Any opposing views?

Offtake Currency

- HMG considering how the GGR BM could accommodate offtake agreements that are denominated in foreign currencies.
- Minded to position that foreign exchange risk should be managed between developer and offtaker.
- Given current state of VCM in the UK, do GGR members expect this to be an issue? If yes, what can CCSA suggest to mitigate this risk?

Billing Period

- Minded to position for monthly billing period, subject to Government-approved crediting and verification body.
- DESNZ is seeking views on how a monthly billing period aligns with offtake strategies.



Summary of the GGR Industry Group Discussion

Offtaker Compliance Provisions

- Do you anticipate challenges incorporating the offtaker compliance provisions?

The final drafting of the Offtaker Compliance Provisions is subject to change. DESNZ reserves the right introduce any additional Offtaker Compliance Provisions that it deems necessary to achieve its policy objectives.

Provision	Description
Methodology	The Offtaker acknowledges and agrees that GGR Credits purchased under the Offtake Agreement shall be generated using the GGR methodologies in the British Standards Institution (BSI)'s GGR Standard.
Carbon Crediting Program	The Offtaker acknowledges and agrees that the GGR Credits shall be issued under a government-approved crediting body and registry, aligned with international standards for high-integrity carbon credits.
National Targets	The Offtaker acknowledges and agrees that the purchase of the GGR Credits shall contribute to achieving the UK's national climate goals, including UK Carbon Budgets and UK Nationally Determined Contributions.
Termination Costs	The Offtaker shall use reasonable endeavours to mitigate any costs and losses that it is entitled to recover from the developer following termination of the relevant Offtake Agreement as a result of the termination of the GGR Agreement.
Invoice Form	The Offtaker acknowledges and agrees that each invoice shall be substantially in the form of a pro-forma to be set out in an annex of the GGR Agreement.



Fair Market Value Principles

- DESNZ propose targeted revisions to the FMV principles in response to industry feedback.
 - Difficult to evidence price that would have been achieved without the subsidy so this will be removed.
 - **This is in line with CCSA feedback.**
- Precise contractual drafting of the FMV principles is subject to further development.
- DESNZ developing a framework for reporting and compliance (subject to further policy development).

In December 2024, the CCSA raised implementation concerns with DESNZ:

- Finalisation of commercial deals.
- Level of compliance associated with principles.
- Implications for CfD contract.
- Scale of resource required to manage compliance with FMV principles.
- Unclear how some of the principles can be quantified.
- Link with PDI and avoiding duplication of measures.

CCSA Updates

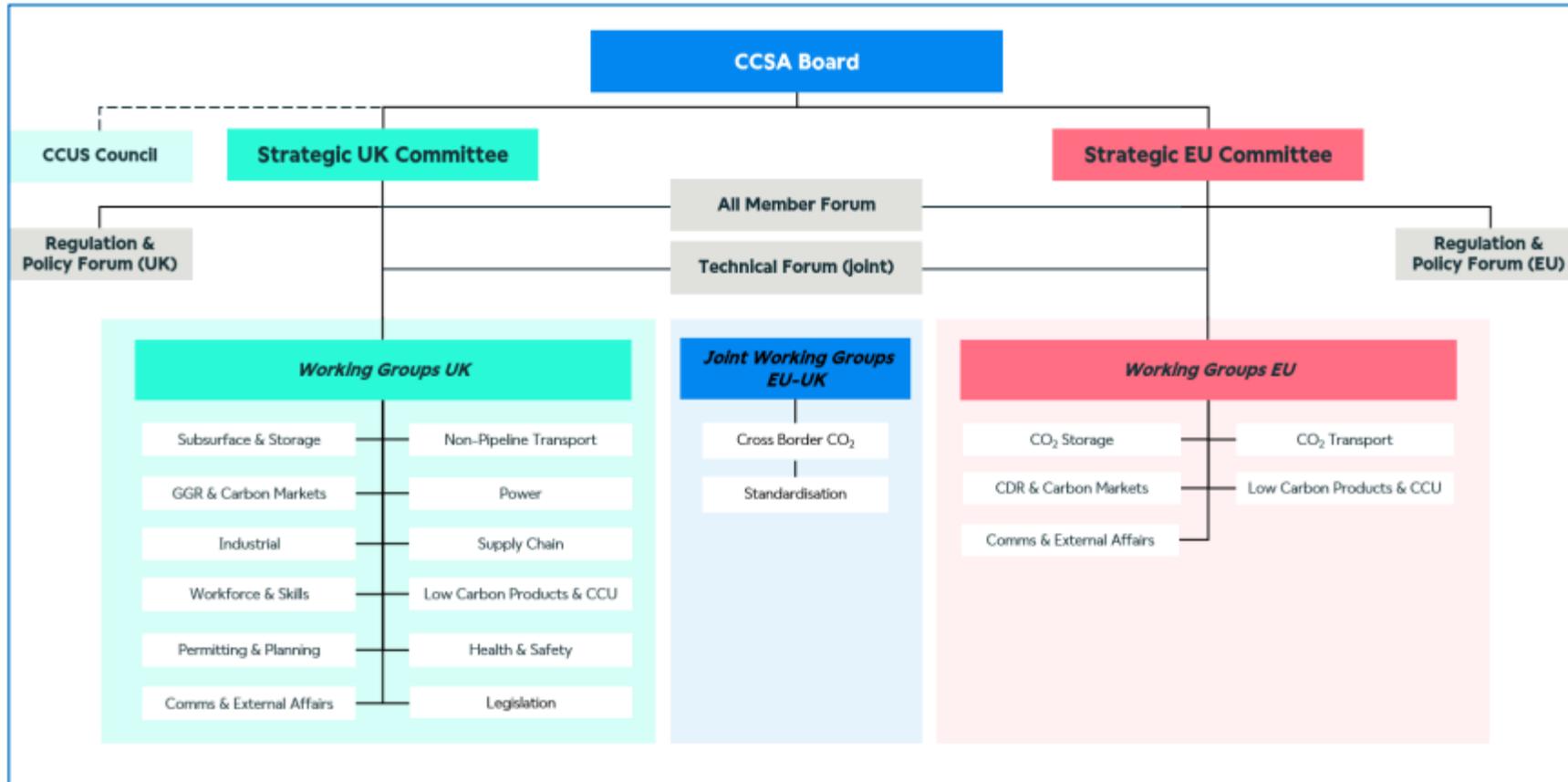


New CCSA Working Group Structure

Based on member feedback, we are implementing a revised working group structure to better cover key topics, enhance input, and provide timely, relevant information.

- As of 1st April 2025, this “*GGR Task Subgroup*” will be renamed the “**GGR & Carbon Markets Working Group**”
 - This will be a UK focussed Working Group. A separate “CDR Working Group” will be led by William Druet focussing on EU topics.
 - Terms of Reference will be shared with members in due course.
 - The group will convene 3-4 times per year to reflect the growing work in this area.
 - In the meantime, if you have any questions, please contact Despoina Tsimprikidou (UK Policy Officer).
- You can find the full update on the CCSA’s working group structure [here](#)

New CCSA Working Group Structure



AOB & Conclusions

- Review actions arising from the meeting
- Next GGR Working Group Meeting: **12 June 2025**
- AOB

