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To: Emissions Trading, Department for Energy Security and Net Zero
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IETA CONSULTATION RESPONSE

UK ETS Authority Consultation on Integrating Greenhouse Gas Removals (GGRs) in the UK ETS

IETA welcomes the UK Emissions Trading Authority's consideration of integrating Greenhouse Gas Removals (GGRs) into the UK Emissions Trading System (ETS), and we appreciate this opportunity to share initial views on matters outlined in the [consultation](#).

IETA considers GGR to be an essential tool for reaching net zero by mid-century aligned with the Paris temperature limitation goals and emphasises the critical role of markets in facilitating their deployment. We congratulate the Authority on taking a lead on this important topic and believes this effort will provide crucial signposts to other jurisdictions developing ambitious net zero policy pathways.

We welcome the opportunity to continue frequent dialogue with the UK ETS Authority throughout the policymaking process. IETA offers a breadth of expertise drawn from our members' experience across emissions markets spanning 25 years.

The consultation raises many new complex questions for which there is little practical experience. In our view, the lack of experience suggests that clear and practical solutions to known challenges may take time to evolve. For example, although early phases of the EU Emissions Trading Scheme (EU ETS) allowed for a proportion of an installations' compliance obligation to be met by the surrender of certified emission reductions (CERs) from the clean development mechanism (CDM) (over phases I and II, 2005-2012) and emission reduction units (ERUs) from joint implementation (JI) (over phase II, 2008-2012), CERs or ERUs derived from activities involving carbon removal by land use, land use change and forestry (LULUCF) were excluded due to various concerns.¹

Noting these known challenges, our response includes several overarching considerations that we urge the Authority to consider when embarking upon the journey to integrate GGRs into the UK ETS, which we support.

¹ See Directive 2004/101/EC

1. Overarching Considerations

With the exception of some selective LULUCF experiences under the Kyoto Protocol (e.g. afforestation and reforestation under the CDM), and the substantial work undertaken to integrate fossil CO₂ capture and geological storage into compliance markets (e.g. EU ETS and CDM), most experience with GGRs and carbon crediting has been implemented over the past 3-4 years in the voluntary carbon market (VCM).

Notably, the VCM presents a different set of design considerations to that of government-led GGR policy and incentives programmes. In the VCM, there is presently only the potential for indirect accounting of actions against Paris targets of countries. On the other hand, effective government-led climate action should require that policy outcomes can be counted within the Paris Agreement's system for measurement, reporting and verification (MRV).² Present gaps in the coverage of GGR methods within the national GHG inventory reporting framework³ may mean that parallel innovative and novel approaches need also to be applied in implementing national GHG inventory reporting frameworks.⁴

Furthermore, we note that governments, in being obliged to continue the monitoring of sources, sinks and reservoirs of GHGs under the UN Framework Convention (UNFCCC) and the Paris Agreement's modalities, procedures and guidelines (MPGs), serve as perpetual custodians of carbon stored in enhanced terrestrial reservoirs (i.e. act as a liability backstop for carbon reversal). Governments must therefore remain mindful of the non-permanence risk, and act to ensure high levels of efficacy in carbon storage so as to minimize longer term liabilities for future carbon reversal from these reservoirs.

We also draw the Authority's attention to the divergence of approaches to integrating GGR within other ETSs. To date, comprehensive integration of a range of GGRs has yet to be fully achieved in any ETS around the world, with only piecemeal integration applied in differing ways. For example, the NZ ETS allows the opt-in of afforested and reforested land parcels as directly covered activities subject to ongoing MRV, while the California cap-and-trade program accepts some project-based credits from some GGR methodology types from, inter alia, Climate Action Reserve (CAR) and ACR methodologies.

The EU's view on the potential coverage of *permanent* GGRs (or carbon dioxide removal; CDR) by emissions trading will only be published in July 2026. The EU has so far outlined a voluntary project-based certification scheme for some CDR methods in its Carbon Removal and Carbon Farming (CRCF) Regulation but has yet to define the purpose or use cases for any certificates that may emerge from the system. Notably, the CRCF differentiates certifiable CDR activities between 'permanent carbon removal'⁵, 'carbon farming'⁶ and 'carbon storage in products'⁷, which many observers anticipate will lead to the issuance of different types of certificates with different use cases.

² Namely: the modalities, procedures and guidelines for an enhanced transparency framework ("the MPGs"); UNFCCC Decision 18 CMA.1

³ See Zakkour, P.D. (2024) "MRV for CDR". Presentation at the 3rd International Negative Emissions Conference (<https://www.youtube.com/watch?v=mXvwjVvdfRY>).

⁴ Ongoing work on CCS and CDR by the IPCC Taskforce on GHG Inventories may close some gaps in understanding by 2027-28.

⁵ Covering any practice or process that, under normal circumstances and using appropriate management practices, captures and stores atmospheric or biogenic carbon for several centuries, including permanently chemically bound carbon in products (see [CRCF, Text agreed during interinstitutional negotiations](#))

⁶ Covering temporary storage of atmospheric and biogenic carbon into biogenic carbon pools or the reduction of soil emissions (see [CRCF, Text agreed during interinstitutional negotiations](#)).

⁷ Covering any practice or process that captures and stores atmospheric or biogenic carbon for at least 35 years in long-lasting products and where the carbon store can be monitored (see [CRCF, Text agreed during interinstitutional negotiations](#)).

2. Principles for Policy Design (Q1)

IETA broadly agrees with the principles outlined by the Authority. We also note the following:

Maintain market integrity: we consider effective functioning of the UKA market to be the key priority when considering any changes to market rules. Effects on liquidity, price predictability/volatility and the risk of split liquidity when introducing new types of units need to be factored into considerations around the policy approach.

Environmental integrity, Deliverability & Simplicity: we support the use of transparent certification standards. Our preference is for an approach based on the authorisation, by the Authority, of third-party standards that are eligible to supply high quality units to the UK ETS. In these respects, we also encourage the Authority to consider leveraging other significant privately-operated carbon market tools and services (e.g. risk assessment; insurance). We also note the need for authorised standards to align with methods and reporting applied in the and Paris Agreement MRV framework under the MPGs.

GGR integration should be considered in the context of enabling future linking of the UK ETS with other emissions trading system worldwide. **Full integration of GGRs within the UK ETS, while a pioneering effort aligned with IETA's goals, will lead to a divergence from current ETS design approaches around the world. Such divergences can potentially impair the capacity to link the UK ETS with other ETSs, in particular, the EU system. Yet, in our view, linking is essential to enhance UK ETS liquidity and increase price efficiency for covered entities. We therefore urge the Authority, while continuing its efforts to integrate GGR into the UK ETS as soon as practicable, to consider the impacts of GGR integration upon linking and the possibilities to align with EU approaches to GGR/CDR (in terms of, e.g., scope of coverage, methodological approaches and fungibility of units).**

Efficiency/Fiscal impact: we would support further quantitative analysis of the effect of GGR integration on price development/compliance costs for covered entities, societal costs, and distribution of revenues (e.g. between public and private actors).

Future proofing: international accounting and non-permanence risk management frameworks for some selected GGR methods are well-established (e.g. methods involving geological storage). In these cases, possibilities may exist for early integration of some GGR credits from third countries where non-permanence risk standards are equivalent to that of the UK's. However, at the current time – given the potential uncertainties over the quality of national GHG inventory compilation and reporting in other jurisdictions and potential risks of emissions leakage – we suggest limiting GGR unit supply to the UK and any linked ETS regions. This can limit environmental integrity risks. Over the longer-term we would support more systematic integration of international credits at a point in time when international best-practice standards have been better established (e.g. IPCC, Article 6).

3. Environmental Integrity of the UK ETS Cap (Q2-Q3)

IETA recognises concerns over potential “waterbed effects” if new sources of mitigation are covered by the UK ETS without adjustment and appreciate the resultant dilution effect that this may have on UK Allowance (UKA) prices. We therefore welcome the Authority's extensive consideration of means to preserve the environmental integrity of the UK ETS cap. We also note that Option 1 (“increase gross cap”), while seemingly not the preferred option, could enable the scientific policy goal of *net* emissions to be met at lower cost and in a market-driven and technology-neutral way, with reduced implementation complexity (especially in early stages when GGR unit supply volumes can be expected to be low, uncertain and intermittent).

Swapping of UKAs equal to GGR unit supply into the marketplace under Option 2 (“maintain gross cap”) or pre-emptive reduction of supply of UKAs through revision of the cap based on expected GGR supply in Option 3 (“new net cap”) would seem like credible approaches maintain UKA prices and to constrain mitigation deterrence risks. On the other hand, such approaches may remove much-needed future liquidity support and reduce the benefits for trade-exposed industries. However, IETA considers that, if the cap is to be adjusted, uncertainty over potential GGR unit supply suggests that **Option 2 could be the most pragmatic approach.**

The consultation document highlights a number of technical and temporal features that will need to be managed in implementation including but not limited to: unit differentiation (and possible approaches to), potential for non-trading entity unit acquisition, government role in facilitating a route to market, the impacts upon smaller-scale GGR, credit vintage, use of provisional/ex post units etc. On this basis, we would also support further consideration of the role of the Authority in GGR unit supplies to the UKA marketplace, cognizant of the “Pathway to integration” set out in the Consultation Paper (e.g. see Model 2 and Model 3 in the ICAP Paper: Emission Trading Systems and Net Zero: Trading Removals).⁸ A similar example would be the market-making role of the Clean Energy Regulator (CER) in Australia. IETA therefore considers that while Option 2 seems pragmatic, other more nuanced design options likely warrant further consideration for their practicality and viability (see Section 8 below).

4. Allowance design for GGRs (Q4-7)

IETA supports ex post allocation of GGR units, subject to consideration of potential alternative means of implementation described below (Section 8).

In terms of who receives the GGR units: under a project-based approach to GGR unit origination, entities registered as project participants would receive the GGR units. Under an alternative means of direct integration of GGR activities in the UK ETS (e.g. on an installation-based approach like for other UK ETS covered entities or forested land parcels in the NZ ETS), an operator of the installation undertaking the GGR would receive the GGR unit (e.g. a DAC or BECCS site; the landowner in the case of a parcel of land being subject to afforestation or measures to enhance soil organic carbon). In either arrangement, the Authority will need to set standards for the integrity and financial standing of GGR operators, and, in the case of the latter approach, identify suitable registries and programmes under which GGR units could be originated.

IETA therefore considers that the means to distribute GGR units/allowances depends on the means of GGR integration (i.e. project-based or installation-based).

5. Unit Differentiation and Routes to Market (Q8-11)

We note that the Authority is considering differentiating GGR units from UKAs. IETA is concerned that splitting the UK ETS market into different unit classes will negatively impact upon market liquidity. **We encourage the Authority to explore means to limit or avoid differentiation of units to the maximum extent possible in order to ensure full fungibility.** For example, as noted above (Section 4), GGR sites could be “opted-in” as installations under the UK ETS, which could then be subject to the issuance of UKAs where removals exceed emissions within a given reporting period (i.e. UKAs allocated to sites with

⁸ La Hoz Theuer, S., Doda, B., Kellner, K. and Acworth, W. (2021). Emission Trading Systems and Net Zero: Trading Removals. Berlin: ICAP.

negative emissions). This arrangement would not necessarily require differentiated units, although it could reduce flexibility for GGR operators.

If differentiation is considered essential, **we would support the generic “GGRA” option with full fungibility with UKAs, rather than the establishment of specific GGR unit types based on the method by which it was originated**; additional market splitting will further enhance market illiquidity. However, we also suggest that transparency provisions should allow any GGRA to be traced to its origins (activity, and method type) as well as the time of issuance and that in the Registry the UKAs are differentiated from UKAs derived from GGR.

IETA is also mindful, however, of the need to maintain flexibility in the approach to allow GGR suppliers the option to sell GGR units into the VCM or into the UK ETS (via whatever disbursement approach is taken), rather than all GGR units being restricted to UKA use/swap. We also note some alternative mechanisms (as noted in Section 8) could offer more flexible routes to market for units from GGR suppliers, including both VCM and/or UK ETS channels. This could allow for differentiated prices to form for GGR units, which are currently concluding credit offtake agreements in the VCM at prices much higher than UKAs or EU Allowances. We also urge the Authority to consider the role of the private sector in accelerating routes to market.

IETA also notes that the EU is exploring possibilities for an agri-food carbon pricing system or ETS that may involve use cases for CDR certificates originating from carbon farming per the CRCF (i.e. nature-based carbon removals). Such market differentiation is understood to be considered as a means to control perceived climate-equivalency issues and non-permanence risks across GGR methods.

6. Location of eligible GGR (Q12)

At the current time, given the UK’s commitment to reduce and remove emissions domestically as well as potential uncertainties over the quality of national GHG inventory compilation and reporting in other jurisdictions, **IETA supports sole origination from UK-based GGR projects or linked jurisdictions, at least in the initial phases**. However, some exceptions for international credits originated from GGR methods with well-established safeguards may be possible (per “Future Proofing” above).

We also note the need to consider how units might be originated in third countries and landed in the UK (e.g. direct origination of UK GGR units or UKAs by activity developers, or origination of other types of units that could be swapped to UK GGR units or UKAs upon landing in UK) and the treatment of any such transfers in respect of ITMOs under Article 6 of the Paris Agreement (and the associated authorisations and corresponding adjustments that would therefore need to be applied) (per “Future Proofing” above).

We also note that the novel/flexible approaches outlined below (Section 8) should still allow UK GGR operators to sell GGR units into international programmes such as CORSIA, or into the VCM or UK ETS.

7. Permanence and Carbon Reversal Risk (Q13-29)

The Consultation Paper notes the need “...to ensure there are measures to govern reversal events, i.e. if the carbon stored by a GGR is later released back into the atmosphere”. In these respects, as noted in our Overarching Considerations (Section 1), the UK government will act as a backstop and de facto risk underwriter in the event of carbon reversal (i.e. emissions) from enhanced carbon reservoirs.

Policy prescriptions through which to devolve this responsibility to private actors exist and, in some cases, have been implemented. For example, the UK ETS already covers CO₂ transport and geological CO₂ storage site installations and operators, and a licensing system exists for geological storage sites

located in UK or EU territories.⁹ Any emissions of CO₂ from these installations would attract liabilities under the UK or EU ETSs. Geological storage site operators can also be expected to establish a buffer reserve of UKAs or similar commensurate with assessed risk of leakage as a component of the Financial Security required under SI 2010/2221 (Schedule 2, para 7). The extent to which the Authority wishes to update and extend these same rules to captured non-fossil CO₂ is a matter for discussion, as noted in the Consultation Paper. Any emissions reported within the UK ETS are also reported in the UK's national GHG inventory.

Some independent GGR crediting systems such as the Woodland Carbon Code (WCC) apply a similar prescription, also requiring entities to undertake a reversal risk assessment and to contribute 20% of issued credits to a buffer reserve. Losses of stored carbon from biological reservoirs enhanced through WCC certification can draw upon the buffer pool and should otherwise be subject to effective MRV and recorded as emissions in the UK's national GHG inventory.

Consequently, any carbon reversal from either geological or forestry biomass carbon pools and reservoirs will be both mitigated by a buffer reserve and backstopped by UK government through the material effects they would have upon achievement of the UK's national net zero goals and nationally determined contribution.

IETA remains unsure of the proposal that “GGRs will be required to prove they can store carbon for a minimum period of time in order to be eligible for UK ETS participation”. The Consultation Paper is not clear whether this requirement will be applied at the GGR *method* level, or at the individual GGR *project activity* level? Notably, a well-managed forest may offer carbon storage for 100s to 1000s of years or changes in land management can lead to multi-century scale sustainable changes in soil carbon stocks. On the other hand, a poorly executed or operated geological CO₂ storage site or changes in land management practices can result in rapid depletion of the carbon reservoir. For some GGR methods, the durability of carbon storage remains uncertain. In most cases it can be difficult to discern these risks *ex ante*, and the situation may change over time. As such, an *ex ante* defined permanence duration becomes somewhat arbitrary and subjective.

We are therefore uncertain how *proof* of durability can be provided for carbon reservoirs where the security of storage is entirely dependent on the ongoing management regime applied to the site (e.g. soils, forests, geo-reservoirs)¹⁰ and/or where efficacy or durability remains subject to scientific uncertainty (e.g. enhanced weathering or ocean alkalinity enhancement). **We therefore do not fully support the concept of defining a minimum storage period duration at the current time, since the purpose of and basis for establishing this period remains unclear and uncertain.**

IETA considers that methodologies as well as supporting rules and regulations relating to GGRs should aim to achieve storage durations for multi-century to millennial timescales. Therefore, we are rather minded that non-permanence/carbon reversal risks and perceived climate-equivalency issues

⁹ In the Energy Act 2008 and the Carbon Dioxide (Licensing etc.) Regulations 2010 (SI 2010/2221).

¹⁰ For example, the 2005 IPCC Special Report on Carbon Dioxide Capture and Storage concluded that “Observations from engineered and natural analogues as well as models suggest that the fraction retained in appropriately selected and managed geological reservoirs is very likely [probability between 90 and 99%] to exceed 99% over 100 years and is likely [probability between 66 and 90%] to exceed 99% over 1,000 years” (p. 14). On this basis, efforts to control non-permanence risk have focussed upon appropriate *selection, design and management of the store*, rather than defining an acceptable minimum storage duration. Hence, the evolution of regulated licensing regimes around the world for geological storage sites.

can be more effectively managed and mitigated through a GGR governance framework covering a combination of the following:

1. Non-permanence risk controls (e.g. through effective ongoing legal and regulatory controls on the selection, design and management of enhanced carbon reservoirs subject to crediting)
2. Carbon reversal risk management through frameworks that allocate responsibility to operators to compensate for reversals from credited GGR activities (e.g. through the use of buffer accounts and/or insurance pools), and
3. A national backstop that acts in perpetuity (i.e. the UK's nationally determined contribution and the national GHG inventory and reporting framework of the MPGs).

IETA therefore supports the proposals from the Authority to allocate responsibility to project operators to compensate for any reversals, including the possible requirement to acquire GGR units from third countries to compensate for any carbon reversal events. We also encourage the Authority to continue its focus on establishing effective governance frameworks that devolve responsibility for stored carbon to project operators – or other relevant entities (e.g. the landowner) that are responsible for managing an enhanced carbon reservoir – for as long as practically possible (e.g. through effective licensing laws and land covenants, as well as liability measures including buffers). Defining the required duration of reservoir monitoring by an operator, and the conditions by which it may cease monitoring, can be practical means for implementation.

IETA is minded to support the application of a flat-rate buffer contribution, but we also suggest that further consideration be made of the possibility to define buffer contributions based on the durability of storage of different GGR methods. We also encourage consideration of the potential role of independent insurance in providing similar reversal risk underwriting services (i.e. a market-led approach to risk assessment and management, rather than a regulatory-led approach to reversal risk management). Support for such approaches may be better served by the Authority setting a cap after which the Authority underwrites reversal risks (e.g. a defined maximum responsibility for carbon reversals for GGR project activities, perhaps defined as a percentage of total carbon added to the reservoir during project implementation, as well as a defined responsibility period/project operator monitoring period). Opt-in of GGR sites can also offer a means to establish long-term monitoring and reversal liability arrangements.

IETA generally supports the inclusion of WCC credits, given the robust safeguards that exist in the UK statute which effectively limit carbon reversal risks, as well as the underwriting of reversal risk through the significant WCC buffer pool. As per above, we also support the flat rate buffer pool contribution, but also note the need for the WCC approach to risk management to evolve as best-practice is further identified. We support the view that social and cultural aspects of woodlands remain within the purview of local planning and other public policies for farming practices and land-use change, rather than built into any GGR mechanism.

IETA does not support the trading of GGR units that are issued according to a time-equivalency value (e.g. based on tonne-year accounting), nor the use of equivalence ratios as an option for 'fungibility measures'.¹¹

¹¹ Equivalence ratios could be instead viewed as a means of giving transparency to the comparability of GGR types, rather than as a basis by which to determine the amount of GGR units to be given to an activity.

IETA also notes that the EU draft legislation on the CRCF already separately defines *permanent* carbon removal and other types of CDR, which we anticipate will result in the EU applying separate use cases (see Overarching Considerations, Section 1). Such market differentiation is considered to be a policy prescription through which to control perceived climate-equivalency and durability issues across GGR methods.

8. Pathways to Integration and Possible Market Controls (Q30-34)

As noted in Section 3 above, at least in early phase deployment ahead of market maturity, IETA suggests that the Authority further explores its role in setting rules to ensure gradual, stable, integration of GGRs.

IETA supports the Authority’s proposal to ensure the market stability, and is of the view that the Authority must prioritise controls over, inter alia, unit quality (quality control), unit volume (quantity control) and unit vintage, etc. As such, in addition to cap integrity, we would also welcome an assessment of different design options in respect of aspects such as:

- The anticipated pace and scale of GGR deployment and volatility/intermittency of GGR unit supply
- The quality and reversibility of GGR units
- Existing volume- and price-based measures within the UK ETS (and their parameters e.g. the Cost Containment Mechanism; CCM)
- Existing subsidy schemes and business models implemented in parallel to the UK ETS carbon price signal, and
- Potential effects on UK industrial competitiveness.

Other design options could encompass, among others, Authority-led GGR unit acquisition, pooling of liquidity, auctioning of “pre-agreements for the supply of GGR units” or auctioning of “GGR rights certificates” to UK ETS covered entities as substitutes for UKAs. In the latter example, ETS covered entities acquiring “GGR rights certificates” would be entitled to surrender a portion of GGR units as proxies for UKAs (or otherwise pay a penalty); in this arrangement, the ETS covered entities would be responsible for acquiring the actual GGR units for compliance within the given timeframe. The arrangement also means that an equivalent volume of UKAs would need to be replaced by the GGR units in line with a cap adjustment envisaged under Option 2.

Building off these flexible approaches, IETA considers that GGR operators should also be able to sell into the VCM or international programmes such as CORSIA at their discretion. Such market dynamics can serve to raise the UKAs price, or – where forward contracts have been purchased, drive more GGR – both of which can drive more climate mitigation.

IETA also considers that, at least in early phases of implementation, supply controls such as qualitative and quantitative limits could be prudent in order to help smooth a gradual price convergence in the mid- to long-term. For example, an initial volume limit defined as a percentage of total issued UKAs or defined limited tonnages of GGRs could still offer a significant demand signal for the GGR industry while not destabilising the UK ETS. If GGRs do not present themselves for sale (as seen in advance by lack of registration of projects) then the Authority could release reserved UKAs to make up the volumes to the gross cap, adjusting the auction volumes through the year to match ex-post GGR issuances; this would result in something of a hybridized approach of both Option 2 and Option 3.

We support the target of a 2028 inclusion date as a means to stimulate the nascent UK GGR market.

We would also support a review of technology readiness by mid-2026 with the publication of its results in early 2027, which could be used to confirm or defer the 2028 inclusion date (where there are valid reasons for doing so). Carbon sequestration rates under WCC also need to be taken into account with project start dates in the window between 2024-2028 could be considered if WCC GGRs are then available for the 2028 start date.

Lastly, IETA strongly supports the linkage between the UK ETS and EU ETS; a vital step to enhance the confidence in both markets, reduce compliance costs for covered entities and enable participants to manage their carbon exposure more effectively.

About IETA

IETA is a non-profit business association with a membership of ~350 members leading international companies and non-profits operating across all global compliance and voluntary carbon markets. Since its foundation in 1999, IETA has been the leading voice of business on market-based ambitious solutions to climate change. We are a trusted adviser to governments to support them build international policy and market frameworks to reduce greenhouse gases at lowest cost, increased ambition, and build a credible path to net-zero emissions. IETA has numerous members operating in the UK. We agree that our response is public. www.ieta.org