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Climate Change Committee
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RE: UK Emissions Trading Scheme and CORSIA

CC: Robert Courts MP, Julie James MS, Michael Matheson MSP and Edwin Poots
MLA

Dear Anne-Marie,

My Committee strongly welcomes the Government's decision to adopt the CCC's recommendations on the level and scope of the Sixth Carbon Budget in full. This is an historic milestone, putting the UK firmly on the path to reaching Net Zero emissions in less than 30 years.

The UK's commitments under the nationally determined contribution (NDC) for 2030 and the Sixth Carbon Budget entail rapid reductions in emissions across the economy. Of course, they also have implications for the emissions cap for the newly established UK Emissions Trading Scheme (UK ETS), which you have committed to aligning with the pathway to the Sixth Carbon Budget.

The Sixth Carbon Budget advice¹ on 9 December 2020 outlined the Committee's recommended path for the emissions assumed to be covered by a UK ETS. However, as this advice was published before the Government's decision on the UK ETS had been announced (on 14 December 2020), we gave this advice based on only the possibility of a UK ETS and without full knowledge of its scope.

Now that there is clarity both on the level of the Sixth Carbon Budget and on the scope of emissions covered by the UK ETS in terms of emitting sectors, greenhouse gases and geographic coverage, the Committee can provide updated advice on the UK ETS cap.

In addition, in response to the Government's recent consultation on the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), I would like to set out the Committee's views on the options for interaction between the UK ETS and CORSIA.

UK Emissions Trading Scheme cap

In making our recommendations on the Sixth Carbon Budget in December 2020, we also provided the pathway to 2030 for emissions covered by the

¹ CCC (2020) *The Sixth Carbon Budget: The UK's path to Net Zero*:
<https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf>

(subsequently announced) UK ETS, consistent with the CCC's 'Balanced Net Zero Pathway' that underpinned our recommendation on both the level of the Sixth Carbon Budget and the UK's NDC for 2030.

Now that the Sixth Carbon Budget has been legislated at the level we recommended, legislation detailing the coverage of the UK ETS has been laid and the scheme is up and running, we would like to provide an updated recommendation on the level of the UK ETS cap.

We have adjusted the level of the UK ETS cap from our recommendation in the Sixth Carbon Budget to reflect the scheme's actual scope. The main difference in the scheme's scope compared to our assumptions is that, as set out by the Northern Ireland Protocol in December 2020, emissions from the Northern Ireland power sector will continue to be covered by the EU ETS, rather than the UK ETS.

We are also taking this opportunity to refine our estimates and remove small errors, including an error in reporting emissions from electricity generation in Table 10.4 of the Sixth Carbon Budget advice. As well as the change in geographical scope, the advice that we provide now also ensures that the scope of our recommended cap aligns to the correct scoping by excluding those from Energy from Waste (EfW) plants, autogenerators, and small exempt plants in electricity generation.

However, from a policy perspective, in future carbon pricing and potentially regulation should be extended to cover EfW and small exempt plants, in order to provide incentives for decarbonisation and to ensure these compete on a level playing field.

Our updated advice on the path for emissions covered by the UK ETS entails emissions reductions for currently traded sectors of 53% to 59 MtCO₂/year in 2030 against 2019 levels, or by 57% to 54 MtCO₂/year if engineered greenhouse gas removals are included (Table 1).

As noted in the Government's response to the consultation on The Future of Carbon Pricing, there is an opportunity to align the ETS cap to the CCC pathway to Net Zero from as early as January 2023.

Table 1

Traded sector emissions in 2023-30, based on current scope plus potential inclusion of engineered removals

MtCO ₂ e	2023	2024	2025	2026	2027	2028	2029	2030
Electricity supply	38.7	39.5	38.1	28.8	23.6	20.3	18.8	14.5
Industry (manufacturing, construction & fuel supply)	58.2	55.9	53.4	48.7	45.9	42.9	38.8	34.4
Domestic and intra-EU aviation	11.6	11.6	11.4	11.2	11.0	10.8	10.5	10.4
Proposed ETS cap (for currently traded sectors)	108.6	106.9	102.9	88.8	80.5	73.9	68.1	59.3
Engineered removals	-0.1	-0.1	-0.1	-0.1	-1.2	-1.2	-3.8	-4.8

Source: CCC analysis

Notes: Engineered removals not included in overall cap level in table. Emissions from hydrogen production included in 'Industry'.

Our advice reflects the recommended path for emissions on the scope covered by the UK ETS. We have not attempted to modify this to allow for market behaviour such as hedging. Should the Government choose to do this, it should do so in a transparent manner including setting out the intended path for actual

emissions covered by the scheme and putting in place measures to minimise risks that the UK ETS ends up oversupplied.

It is important to note that setting the Sixth Carbon Budget and the UK's NDC at the levels we recommended does not automatically dictate the precise cap of the UK ETS. There is some potential for the NDC and Sixth Carbon Budget to be met in a different way from that suggested by our analysis, with a different balance of emissions reductions in the 'traded sector' (i.e. within the scope of emissions covered by the ETS) as against the non-traded sector.

However, in practice, the potential to deviate from our recommended path for traded-sector emissions is limited given the stretching nature of the UK's targets and the need to reduce emissions strongly across all sectors in order to meet them. There are limited ways to reduce emissions faster in one area to allow slower reductions elsewhere. It is essential that the setting of the cap does not place excessive pressure for emissions reduction on the non-traded sectors, whether by accident or design.

Interaction between the UK ETS and CORSIA

We also welcome the inclusion of international aviation in the Sixth Carbon Budget. Even with their emissions formally included in UK carbon budgets and the Net Zero target, the primary policy approach to reducing emissions from international aviation should be at the international level. The sector is global in nature and there are some modest risks that a unilateral UK approach could lead to carbon leakage (under certain policy choices) or competitiveness concerns for the UK aviation industry. The UK has played a key role in progress by the International Civil Aviation Organisation (ICAO).

The ICAO's current carbon policy, the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), aims to ensure that most emissions increases above a baseline year (now 2019) are balanced by offsets up to 2035. The Sixth Carbon Budget advice set out our position on credits under CORSIA, which is the same as for other credits: they should not be used to meet UK carbon budgets. While CORSIA could develop to a point where its offsets are of sufficient quality and additionality to be an acceptable contribution to UK carbon budgets, that is currently not the case.

We note the Government's current and planned consultations on CORSIA, including options for how it will interact with the UK ETS. While international aviation will only be formally included in UK carbon budgets in the Sixth Carbon Budget (from 2033), this same prohibition of offsets should be applied to allowing operators to use CORSIA credits as a substitute for a UK Emissions Trading Allowance at present.

The Government consultation of January 2021 set out six options for interaction between CORSIA and the UK ETS. Based on our advice on the use of international credits we consider two of these options to be unacceptable – option 1 (simple hybrid scheme) and option 2 (supply-adjusted hybrid scheme). Both these options would result in the use of CORSIA credits to meet UK ETS obligations without additional criteria to ensure the credibility of these credits. We also do not consider option 4 (ETS and CORSIA), which would result in double compliance for eligible plane operators, to be a sensible alternative.

This leaves option 3 ('restricted' hybrid scheme), option 5 (domestic offsetting scheme) and option 6 (UK ETS only) as workable alternatives. Any option chosen

should ensure that interaction between CORSIA and the UK ETS follows the following key principles:

- Ensure that CORSIA credits do not qualify to offset emissions from flights covered by the UK ETS unless and until they can satisfy strict eligibility criteria (equivalence, additionality, permanence, sustainability, as set out in detail in our 2019 Net Zero report², and in the Annex to this letter).
- Avoid double-compliance.
- A sustainable offsetting strategy must move rapidly towards near-permanent carbon sequestration. While natural ecosystems can store carbon for millennia, emissions are greater than the capacity of the biosphere to absorb additional carbon, so nature-based solutions cannot be relied on exclusively in the longer term.

The Government should also consider whether longer-term harmonisation of schemes for both UK-EEA (currently in the UK ETS) and international flights (currently under CORSIA) would be preferable than separate schemes for these flights.

CORSIA monitoring, reporting and verification

The Committee noted the Government's response to the CORSIA consultation does not propose to include a requirement for plane operators to monitor and report on non-CO₂ climate effects of aviation. This would be a missed opportunity. While it is true that further research is needed to understand these impacts better, and estimates may change as the science evolves, it is crucial that the data needed to enable these estimates start being collected now.

The Committee would be happy to provide further advice on the scope of the UK ETS and on interaction between CORSIA and the UK ETS, including any criteria developed by Government to enable the use of CORSIA credits to meet obligations under the UK ETS (e.g. as under option 3 in the Government's CORSIA consultation).

Yours ever,



Lord Deben
Chair of the Climate Change Committee

² CCC (2019) *Net Zero – The UK's contribution to stopping global warming*:
<https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>

Annex – Criteria for robust carbon units purchase

Our recommendation that the UK should establish clear principles and rules to identify robust carbon unit purchases and maximise their integrity reflects their importance:

- Clear and effective principles and rules will be required for any use of international units (or 'credits') to qualify for target compliance. The Climate Change Act requires the Committee to advise on whether carbon units from particular schemes can be used towards targets in the Act.
- By setting a benchmark, these principles and rules could also positively contribute to the wider development of international markets for carbon units.
- Principles should draw upon 'lessons learned' from past experience and as much as possible avoid the shortcomings which affected the CDM and other existing schemes.

Drawing upon our stakeholder consultations and a targeted literature review, we identified the following broad principles:

- **Equivalence.** Any international carbon unit should have a clear long-term climate benefit, at least as large as the effect of a unit of CO₂ removal in the UK.
- **Additionality.** The activities generating carbon units should drive genuinely additional emissions reductions (i.e. that would not have happened in the absence of such activity).
- **Permanence.** The activities generating carbon units should lead to permanent reduction or removal of GHGs from the atmosphere.
- **Sustainability.** The activities generating carbon units need to support wider sustainability objectives:
 - they should do **no-net harm as a minimum**, preserve and enhance environmental integrity, be compatible with sustainable development goals and not disadvantage local communities.
 - they should ideally deliver environmental and social **co-benefits** (e.g. ecosystem services, support to local economic development).
 - As such, they should ensure **land and biomass** are used sustainably.

In order to be implemented, criteria will require a robust and transparent **governance framework**, addressing accounting and measurement issues, as well as monitoring and verification:

- Article 6.2 of the Paris Agreement states that Parties shall 'apply ... robust accounting'. Governance should ensure robust measurement and accounting of emissions as well as of other impacts the activities generate.
 - This includes a rigorous calculation of emissions savings and the clear assignment of ownership rights for carbon units.

- Crucially, accounting rules will need to ensure emissions savings are not double-counted.
- Accounting rules should also consider differences in NDCs (e.g. whether these are with or without an economy-wide cap, or expressed in non-GHG metrics) and deal for example with trade of units across multiple years (i.e. different vintages).
- The governance system should be **transparent** and should ensure robust **monitoring and verification** through independent auditing.

Some possible **practical approaches** to implement these principles are described below.

- Having a **list of eligible projects**. Limiting the purchase of units to certain types of activities can help mitigate specific risks, for example:
 - Limiting the purchase of carbon units to engineered greenhouse gas removals (GGRs) could help achieve 'equivalence'. A removal elsewhere would have a long-term climate benefit at least as large as the effect of a unit of CO₂ removal in the UK. For engineered approaches like direct air capture, which are inherently scalable and not significantly restricted by availability of land, this ought not to reduce the capacity of the host country to reduce its own emissions.
 - Excluding certain types of projects such as large hydropower or wind projects can mitigate the risk of not delivering 'additional' reductions. Some certification standards (e.g. the Verified Carbon Standard) and countries (e.g. Norway) are already doing so.
- Select **partnerships** can help setting high quality standards. For example, this can be done on the basis of:
 - **Level of ambition**. Purchasing within the scope of a country's NDC (i.e. only covered activities/sectors) and from countries with ambitious NDCs can help ensure the quality and additionality of carbon units (note that outside of NDCs, carbon units could still be used as a tool to mobilise finance).
 - **Bilateral partnership**. These can help ensure the agreement of clear and robust criteria between exchanging parties, such as to avoid double counting. For example, the KliK Foundation in Switzerland (which fulfils an obligation to reduce emissions on behalf of the Swiss motor fuel importers) restricts funding to activities in countries that have a bilateral treaty with Switzerland ensuring that specific quality requirements on emission units are met.
- Similarly, setting clear and detailed **rules** for selecting carbon units can also help ensure higher standards. It is hard to identify now what the right rules would be in the long term.
 - There are, however, examples of this sort of approach, such as the German Federal Government's initiative to offset travel emissions from its staff through the purchase of CDM emission units. This sets out detailed criteria for the selection of activities eligible for funding and evaluation of quality of project bids (e.g. based on contribution to sustainable development objectives).

- Rules could encourage activities with the largest transformative potential.
- A technical body could be tasked with either setting or interpreting the rules (e.g. CORSIA's Technical Advisory Body). However, its independence would need to be ensured.

The negotiations on Article 6 of the Paris Agreement present an opportunity for the international community to set up a robust and credible centralised market mechanism. However, depending on the outcome of the negotiations the UK may need to set up more ambitious rules and implement these through bilateral agreements (under the Paris Agreement Article 6.2). The international guidance under UNFCCC may not be detailed enough to guarantee robust principles are effectively implemented.

These criteria are only a starting point and cannot be fully defined at this stage given the Paris Agreement mechanisms are not yet fully defined. They can be developed further as the development of Article 6 becomes clearer.

Source:

CCC (2019) Net Zero – The UK's contribution to stopping global warming

German Federal Government (2018) Purchase of Certified Emission Reductions (CERs) from the Clean Development Mechanism (CDM) for greenhouse gas offsetting of business trips of the German Federal Government

The KliK Foundation: <https://www.international.klik.ch/en/Home.182.html>