

Department for Energy Security and Net Zero
3 Whitehall Place
London
SW1A 2AW

26 October 2024

Dear Secretary of State,

Thank you for your letter seeking our guidance on the UK's 2035 Nationally Determined Contribution (NDC). An ambitious UK NDC announced at COP29 will show UK climate leadership and reinforce the commitments that the Government has made to put climate and nature at the centre of its domestic missions and foreign policy.

We recommend that the UK's NDC commits to reduce territorial greenhouse gas emissions by 81% from 1990 to 2035. This is based on the Climate Change Committee's forthcoming advice on the UK's Seventh Carbon Budget which we will publish on 26 February 2025. It is informed by the latest science, technological developments, and the UK's national circumstances. It is ambitious, deliverable, and consistent with the emissions reduction required to meet the UK's legally binding Sixth Carbon Budget (2033 to 2037). It makes a credible contribution towards limiting warming to 1.5°C above pre-industrial levels in line with the Global Stocktake and Paris Agreement and represents a clear progression beyond the UK's 2030 NDC commitment.

Meeting both this and the 2030 NDC requires rapid but achievable action with low-carbon technologies becoming mainstream. This action can boost investment and support new jobs across the country as well as reducing the UK's dependence on volatile fossil fuel markets. Rapid reductions in fossil fuel dependence are the best way to enhance UK energy security.

In line with UNFCCC convention, we recommend that international aviation and shipping (IAS) emissions are excluded from the headline NDC target. However, the UK must maintain its ambition on reducing its share of IAS emissions. The UK NDC's technical annex should set out the commitments to include IAS emissions in the Sixth Carbon Budget and Net Zero 2050 target. The UK must also continue to push for rapid progress in International Civil Aviation Organisation (ICAO) and International Maritime Organisation (IMO) negotiations and should commit to stronger action in coordination with other parties.

An ambitious NDC should be complemented by commitments across all pillars of the Paris Agreement. To demonstrate international leadership the Government should put forward:

- An ambitious and fair contribution towards the new collective quantified goal on climate finance pending its agreement at COP29. This should be accompanied by clear plans to leverage the UK's strengths in finance to unlock much greater levels of public and private investment in a resilient low-carbon global transition, particularly in emerging and developing economies.

- A strengthened National Adaptation Programme that sets clear objectives and measurable targets to make adaptation a priority across all departments and includes support for adaptation overseas. This should be consistent with the new UAE Framework on Global Climate Resilience and fully integrated with the UK's decarbonisation plans.
- A plan for how the delivery of the NDC will be aligned with the UK's international and domestic goals on nature and fully integrated with the forthcoming National Biodiversity Strategy and Action Plan to the UN Convention on Biological Diversity.
- A plan for how the UK will strengthen and contribute to key international initiatives, such as the Breakthrough Agenda, Global Methane Pledge, and Forest and Climate Leaders' Partnership. Efforts should be made to streamline these initiatives and where relevant the UK should set out clear and quantified contributions towards meeting their aims.

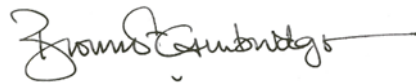
Setting a target is not enough. The UK must back up its international commitments through actions here at home. We welcome the actions already taken by the Government on renewable electricity, energy efficiency in rented homes, and carbon capture and storage. We need to see further urgent action to speed up deployment of low-carbon solutions such as electric vehicles, heat pumps, and tree planting.

Even with successful efforts to reduce emissions we must still take action to prepare for further changes in the climate. An increased focus on adaptation to climate change is therefore vital and we look forward to the Government's plans in this area.

Yours sincerely,



Professor Piers Forster
Interim Chair, Climate Change Committee



Baroness Brown of Cambridge DBE FREng FRS
Chair, Adaptation Committee

Annex

This annex provides additional context for our recommendations on the UK's 2035 NDC. It is set out in five sections:

1. The UK's 2035 NDC as a contribution to the Paris Agreement
2. International aviation and shipping emissions
3. Technical detail of the target recommendation
4. The UK's wider contribution to tackling climate change
5. Delivering the NDC

The UK's 2035 NDC as a contribution to the Paris Agreement

The Paris Agreement sets a long-term temperature goal to limit global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C above pre-industrial levels.

Under the Paris Agreement, parties must submit an NDC every five years that represents their 'highest possible ambition' to reduce emissions and that is a 'progression' beyond their previous NDC. NDCs should reflect a party's common but differentiated responsibilities and respective capabilities. This principle implies that while all parties have responsibility to take actions to achieve the goals of the Paris Agreement, developed parties (that are generally wealthier and have contributed more to climate change to date) should take a lead. The first Global Stocktake, concluded at COP28 in 2023, encourages parties to submit NDCs that are aligned with limiting warming to 1.5°C.

Achieving an 81% reduction in UK territorial greenhouse gas (GHG) emissions by 2035 on 1990 levels would be a fair and ambitious contribution to the Paris Agreement:

- **It reflects the UK's 'highest possible ambition'.** Our Seventh Carbon Budget pathway reflects the UK's 'highest possible ambition' that can be achieved under a deliverable pathway to Net Zero. The pathway is driven by an assessment of a stretching but deliverable rate of technological roll-out, based on existing and developing technologies, as well as evidence on the highest achievable levels of sustained household and business choices to reduce demand for high-carbon goods and services.
- **It is a credible contribution towards limiting warming to 1.5°C.** The recommended ambition would imply future total emissions reductions at least as fast as the global average under scenarios from the IPCC Sixth Assessment Report (AR6) that limited warming to close to

1.5°C, with per capita emissions in line with the required global average by 2035 (Table 1). It is a stepping stone on an ambitious and deliverable pathway to Net Zero GHGs by 2050 – ahead of when global Net Zero is reached in IPCC scenarios that limit warming to close to 1.5°C. Our recommended 2035 NDC sits within a range of Paris-consistent equity metrics and the UK should complement domestic action by making a strong global contribution (see below section on the UK's wider contribution).*

- **Action to deliver the UK NDC can help to speed up global efforts to decarbonise.** Through proving delivery and bringing down costs, many of the UK actions such as achieving a low-carbon power system, rolling out electric vehicles and deploying carbon capture and storage will make an important and timely wider contribution to global decarbonisation.

Table 1
Comparison of UK ambition with IPCC global emissions scenarios consistent with the Paris Agreement, including UK share of IAS

	UK – recommended 2035 NDC	Global average – 1.5°C scenarios	Global average – well below 2°C scenarios
% change 2010-2035	-71%	-55% (-43% to -75%)	-31% (-17% to -51%)
% change 2019-2035	-62%	-60% (-48% to -78%)	-38% (-25% to -56%)
2035 emissions per capita (tCO _{2e} /person)	2.6	2.6 (1.3 to 3.3)	4.0 (2.8 to 4.8)

Source: CCC analysis; Office for National Statistics; IPCC Sixth Assessment Report.

Notes: UK figures shown are inclusive of emissions from IAS to allow for direct comparison with the global scenarios; 1.5°C and well below 2°C scenarios shown relate to C1 and C3a scenario sets in the IPCC AR6 respectively for all GHG (including IAS); ranges shown in square brackets are 5th-95th percentiles; 2010 and 2019 base years are shown for consistency with AR6.

International aviation and shipping emissions

We recommend that IAS emissions are excluded from the headline NDC target in line with UNFCCC accounting practices. Table 2 demonstrates the impact of including and excluding IAS emissions on the UK NDC target level.

However, the UK must maintain its ambition on reducing its share of IAS emissions. The Government has committed to include IAS emissions in existing UK domestic targets (Sixth Carbon Budget and Net Zero by 2050). To meet these, it is essential that UK IAS emissions start to reduce in the 2020s and the UK should commit to working with others to drive much more ambitious action than is currently seen.

* Illustrative equity-based approaches suggest ambition in the range of a 71% to 109% reduction on 1990 levels for 1.5°C scenarios and a 56% to 85% reduction on 1990 levels for well-below 2°C scenarios. Source: Robiou du Pont, Y. et al. (2017) "Equitable mitigation to achieve the Paris Agreement goals". *Nature Climate Change* 7, 38–43.

- **The UK is well-positioned to drive IAS decarbonisation.** The UK has already set an international example by committing to include IAS emissions in the Sixth Carbon Budget, creating a strong incentive for the UK to be at the forefront of the required solutions to address IAS emissions. These include the need to demonstrate new technologies such as sustainable aviation fuels, direct air capture, and zero-emission aircraft, implementing policies that will help manage the forecasted increase in aviation emissions, supporting the deployment of low-carbon marine fuels, and negotiating for substantially strengthened outcomes at the ICAO and IMO.
- **Much stronger international action is urgently needed to address IAS emissions.** According to CCC pathways, by 2035 IAS emissions will be the third largest source of emissions in the UK and by 2050 IAS will be the second largest source after agriculture. Current ICAO and IMO targets and delivery mechanisms are insufficient to deliver the international response required to tackle global IAS emissions.
- **The UK can lead internationally on IAS emissions.** The Government should continue to occupy a leadership role in international negotiations to strengthen and implement the ICAO and IMO objectives. The UK Government should also work with other parties to establish robust international actions and mechanisms to tackle IAS emissions. For instance, through the International Aviation Climate Ambition Coalition, the UK Government could agree with other willing countries to set more stringent targets and policy, including on carbon pricing, as well as forming international agreements on non-CO₂ emissions.

Technical detail of the target recommendation

Our recommended 2035 NDC target considers the pathway to and delivery of the UK's existing emissions reduction targets, the current state of policy and delivery progress, GHG accounting changes since the CCC's Sixth Carbon Budget (CB6) advice, and the technical differences between UK Carbon Budgets and NDCs:

- **Existing UK targets.** The pathway used to determine our recommended 2035 NDC target meets the UK's existing Net Zero-aligned targets: the 2030 NDC, CB6, and Net Zero by 2050. As a result, the ambition set out in this recommended NDC is consistent with the ambition that the UK Government is already committed to achieving (Table 2). In some cases, achieving this ambition now requires faster action due to slower progress than expected since our CB6 advice.
- **Accounting changes since CB6 advice.** Revisions to the UK emissions inventory have lowered the published estimates of the UK's total GHG emissions relative to the inventory used in setting the CB6 level in 2021. The amount of emissions reduction required to meet the legislated CB6 budget is now slightly smaller than it would have been without these changes. This means that there are small differences between the percentage reduction required to meet the legislated CB6 target now and those that were recommended in our CB6 advice.
- **NDC scope and UK Crown Dependencies and Overseas Territories.** UK Crown Dependencies and Overseas Territories are not within the scope of the Climate Change Act or the CCC's remit. The UK ratification of the Paris Agreement has been extended to all UK Crown Dependencies and Gibraltar. Therefore, their emissions are within the scope of the UK's NDC. The CCC analysis for this NDC recommendation includes their emissions and

assumes they achieve their publicly stated emissions reduction targets but does not make any recommendation on their decarbonisation.

Table 2 UK 2035 NDC recommendation compared to CB6		
	2035 UK emissions reduction excluding IAS (NDC basis)	2035 UK emissions reduction including IAS
CCC NDC recommendation (based on forthcoming CB7 pathway)	81%	77-78%
CCC CB6 advice	82%	78%
CB6 legislated basis (comparing annualised legislated CB6 number with latest inventory estimate of 1990 emissions)	80%	77%

Source: CCC analysis.

Notes: (a) Our recommended NDC is based on the emissions reduction in our modelling of an ambitious, deliverable pathway for the UK, rounded to the nearest percentage point. In setting the NDC, the UK Government should ensure that performance against the target can be assessed in the same way. (b) The recommended number is given as a percentage reduction compared to 1990 emissions (1995 for F-gases), as reported in the latest inventory. (c) For information, we have included the equivalent 2035 emissions reduction percentage including the UK's share of emissions from international aviation and shipping (IAS). This is given as a range because our modelling of the UK pathway including IAS will be finalised in the forthcoming Seventh Carbon Budget (CB7) advice. (d) We include emissions from all UK Crown Dependencies and Gibraltar in these calculations and assume they decarbonise in line with their own targets. The value including IAS assumes that IAS emissions for all the UK Crown Dependencies and Gibraltar remain fixed at their 2019 levels. (e) The table also compares the recommended value based on CB7 analysis with values in our previous CB6 advice analysis. In addition, we have provided a comparison with the CB6 legislated basis, which entails annualising the legislated value of the Sixth Carbon Budget (965 MtCO₂e) and calculating the percentage reduction that this would imply based on the latest inventory. The number quoted for the CB6 legislated basis excluding IAS is calculated by subtracting the emissions from IAS in our CB7 pathway from the legislated CB6 value.

The UK's wider contribution to tackling climate change

International climate leadership, as well as the UK's high historical responsibility for GHG emissions and relatively high consumption emissions requires more than an ambitious NDC target. Action is urgently required across adaptation and climate finance to achieve the goals of the Paris Agreement, as well as outside UNFCCC negotiation and processes:

- **Adaptation.** The UK should strengthen its National Adaptation Programme to set clear objectives and targets, including supporting adaptation overseas, and reorganise UK policy to place adaptation at the centre of Government.
 - The Third National Adaptation Programme (NAP3) should be strengthened to make adaptation a fundamental aspect of policymaking across all departments, including through setting clear objectives and measurable targets, aligning with the new UAE Framework on Global Climate Resilience.
 - Adapting to a changing climate is essential to address a wide range of risks and is a pre-requisite for delivering the UK's NDC, with adaptation essential for protecting investments into the Net Zero transition from damages and disruption caused by a changing climate.

- The UK's 2035 NDC should set out how it will integrate with a revised NAP3 to ensure that the interlinkages between adaptation and mitigation are meaningfully addressed. It should also set out how wider co-benefits, such as benefits for human health from coordinated mitigation and adaptation action, will be realised.
- **Nature.** The UK has a range of international and domestic commitments on nature. Efforts to deliver the reduction in emissions needed to meet the NDC, including scaling up land-based carbon sinks, must be done in ways that fully align with the UK's nature goals. The UK's NDC should set out how this will be achieved, including via alignment with the forthcoming National Biodiversity Strategy and Action Plan to the UN Convention on Biological Diversity. This integration is particularly vital in the land-use sector – where maintaining and increasing carbon stocks, a critical part of the UK's path to Net Zero, needs to be delivered alongside ensuring healthy, diverse, and resilient ecosystems.
- **Climate finance.** The UK is a global financial hub and finance leader. As recently set out in the Prime Minister's speech to the United Nations General Assembly it is in a strong position to encourage both financial institutional reform and to drive the delivery of both public and private finance towards accelerating the transition, including the establishment of proper financing arrangements for Loss and Damage.*
- **International collaboration and initiatives.** The UK should seek to strengthen international sectoral pledges and alliances, including the Breakthrough Agenda, Global Methane Pledge, Powering Past Coal Alliance and new Clean Power Alliance, Accelerating to Zero Coalition, and Just Energy Transition Partnerships to help ensure they deliver their goals. In support of this, the UK should clearly set out its domestic contributions to these international initiatives. For instance, the UK has not defined a domestic target in line with the 2030 goal set in the Global Methane Pledge. These domestic contributions should be documented in the UK NDC's technical annex.
- **Transparency in the NDC.** The UK should continue to champion international transparency by submitting a best practice NDC technical annex, including detail such as the Government's approach to domestic delivery arrangements for the NDC and ensuring a Just Transition to Net Zero in the UK.
- **International credits.** International credits should not be used to achieve any UK NDC as the trajectory used for the NDC recommendation on the pathway to Net Zero by 2050 is set to be achievable through actions that directly reduce the UK's territorial emissions.

Delivering the NDC

The successful delivery of the CCC's recommended level of the 2035 NDC and of the UK's existing 2030 NDC is vital to demonstrating international climate leadership. This delivery will bring benefits for UK citizens but action is needed now. In our 2024 Progress Report, we set out 10 priority actions that are needed to deliver on this ambition. These were:

* UK Prime Minister Sir Keir Starmer speech to the UN General Assembly 26 September 2024
<https://www.gov.uk/government/news/pm-united-nations-general-assembly-speech-26-september-2024>

- **Making electricity cheaper**, to incentivise people and businesses to choose more efficient low-carbon electric options.
- **Reversing recent policy rollbacks**, to send consistent, coherent signals to consumers and markets.
 - Since our Progress Report, the Government announced plans to reinstate energy efficiency requirements for rented homes.
 - The Government has also signalled its intention to reinstate the 2030 phase-out date for new petrol and diesel cars.
- **Removing planning barriers for heat pumps, electric vehicle chargers, and onshore wind**, to ease restrictions to take-up.
 - The embargo on onshore wind in England has been removed.
- **Introduce a comprehensive programme for decarbonisation of public sector buildings.**
- **Effectively design and implement the upcoming renewable energy Contract for Difference auctions**, to ensure funding and auction design are appropriate to deliver at least 50 GW of offshore wind by 2030.
 - The Government increased the budget to contract new renewables in the recent Allocation Round 6, although more will be required in the next round.
- **Accelerate electrification of industrial heat**, by ensuring that prices, incentives and support are sufficient to enable a rapid transition to electric heat across much of industry.
- **Ramp up tree planting and peatland restoration** in the 2020s. There must be no more delays to addressing the barriers to delivery.
- **Finalise business models for large-scale deployment of engineered removals.**
- **Publish a strategy to support skills** in sectors which need to grow or transition and in communities that may be adversely impacted.
- **Strengthen NAP3** to set clear objectives and targets and reorganise government adaptation policy. Adaptation must become a fundamental aspect of policymaking across all departments and be integrated into other national policy objectives.