Climate Change Committee 2022 Progress Report – Member-only Summary

The Climate Change Committee (CCC) published its 2022 Progress Report to Parliament on 29th June, this is a summary for members of the major findings and recommendations. This is a legal requirement to assess annually the Government's progress to Net Zero and the interim Carbon Budgets as set out in the Climate Change Act 2008. The recommendations have no legal basis nor are guaranteed to be adopted by Government, but offer guidance to Government on how to meet its legally binding Carbon Budgets.

The full CCC report is available here.

The CCC say the current Net Zero strategy is not enough to get us to Net Zero.

Although we are leaders on setting targets, we now need to deliver to them and this report is an assessment of progress to date, focussing on the practical needs to get us to our targets.

The committee particularly stress the gap in energy efficiency policy and need for urgent action on land use, while saying that contingency plans need to be put in place should some policies not deliver the required drop in emissions.

Main findings

This report can be seen as a call to action for government to put in place deliverable actions to get to Net Zero. The Committee praised the UK's world leading targets, but made clear that was no longer enough and actions were now needed.

The headline figures from the report are:

- The UK has world leading targets for emissions reduction, but our targets are at risk of being met due to lack of Government delivery
- Insufficient plans are in place to deliver around one third of the required reductions
- The UK's 2021 emissions are up 4% compared to 2020 but still down 10% on pre-pandemic (2019) levels
- UK emissions in 2021 are down 47% since 1990
- They highlight good progress in power decarbonisation and EV growth, but say much more needs to be done on heat and transport
- There are 300 recommendations for policy actions in the 619-page report.

Most of the CCC's recommendations are aligned with our own, including:

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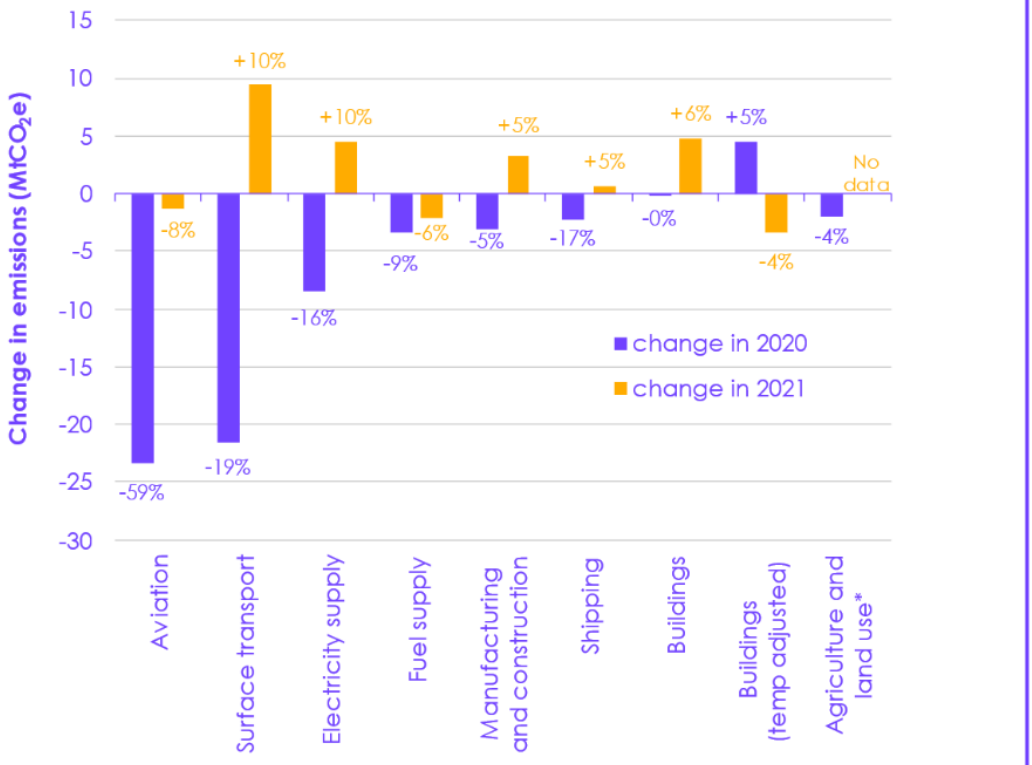
- The Committee would support moving the policy costs of historic green subsidies off electricity bills and onto general public spending
- Any responses to the current energy crisis must be Net Zero compliant
- Urgent, effective action must be taken to improve energy efficiency and emissions from buildings
- More needs to be done to address emissions from land use and agriculture
- Action is needed on tree planting and peat protection
- Government's forthcoming energy advice service (announced in the Energy Security strategy) must be ambitious, wide ranging, well-funded and comprehensive. The figure of 4 of every 5 households currently trying to reduce their energy consumption was quoted.
- Fundamental changes to the UK's tax system (for example consideration of road pricing) is needed
- Roles and accountabilities between central government, regional and local authorities must be clarified and a plan put in place to deliver actions locally.

Continued overleaf…..

Figure 2 Change in UK emissions 2019-2021



Source: BEIS (2022) *Provisional UK greenhouse gas emissions national statistics 2021*; BEIS (2022) *Final UK greenhouse gas emissions national statistics*; BEIS (2022) *Energy Trends: UK oil and oil products March 2022*; CCC analysis.
Notes: Global warming potentials from the IPCC Fifth Assessment Report (AR5) without feedback are used.
*Provisional 2021 estimates are not made for non-CO_2 greenhouse gases, so the change in 2021 agriculture and land use emissions is not shown.

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Further information by technology/sector

Transport

- The CCC praised progress on the uptake of EV cars and the clarity that the 2035 phase out date had provided – saying EV car uptake was higher than even their own projections, encouragingly.
- They state that more progress is needed however on growing EV van sales and model range.
- Highlight EV Charging infrastructure as both an area where government has taken some good steps, but an area where more growth is needed. Want 300,000 public chargepoints by 2030.
- Implementation of the ZEV Mandate and policy to support HGV and bus ICE phase out dates.
- Regarding supply chains, Government should: "Work with the UK car industry to ensure that, where viable, EV supply chains are localised within the UK. This should include support for gigafactories to scale up at the pace required for UK manufacturing capacity to meet the Faraday Institution's recommendation of 140 GWh per year by 2040."
- Initiate a maritime decarbonisation cluster supplying at least 2 TWh/year of zero-carbon fuels by 2030 with support for shore based repowering.
- Biofuels are recommended as important for transport decarbonisation but not covered in any depth.
- The CCC call for "continued commitment" to Sustainable Aviation Fuels and the implementation of the mandate 'as soon as possible' in 2022.

Solar

- The report is right to praise increased solar deployment, highlighting that rapid deployment will be necessary in order to reach Net Zero and points to recent support measures such as the business rates relief and VAT exemption on domestic solar.
- While the report notes that ambitions for solar deployment outlined in the British Energy Security Strategy align with the CCC's balanced pathway to Net Zero, the REA remain concerned that the government did not robustly commit to deployment targets and these are only 'ambitions to deploy'.
- In relation to the ongoing cost-of-living crisis, the report notes that rapid solar and onshore wind deployment can be used in the short-term to generate cheap electricity, helping to lower bills for consumers and improve energy security. The CCC state that these technologies can be deployed 'significantly quicker than offshore wind' (p.15) and that local authorities can play a key role in the near-term.

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Energy Storage

- The report recognises the important role of energy storage within the transition to low-carbon flexible generation (p.255). While it does recognise that the government have introduced policy to encourage energy storage deployment, the report still points to 'deployment risks around renewables and energy storage'.
- The CCC highlight the 'need to reward system flexibility' (p.257) as one of the key challenges which current market arrangements and policy have not been designed for. The REA would encourage the introduction of a regular, centralised and transparent market for flexibility services (e.g., voltage control), with long-term contracts.

Networks

- They call for the publication of a strategic framework identifying the network requirements for Net Zero, and the changes needed to ensure investments in resilient infrastructure are identified, planned, consented and built in sufficient time to accommodate increased demand and generation.
- "Through the Review of Electricity Market Arrangements, develop a strategy as soon as possible on market design for the medium- to long-term for a fully decarbonised, resilient electricity system in the 2030s and onwards."

Organics

- The CCC recommend Defra fund WRAP to 'undertake an assessment of the behaviour changes needed to achieve targets for food waste reduction, recycling and improved end user consumption'. Also call for business food waste reporting by 2024.
- Implement initial Extended Producer Responsibility, the Deposit Return Scheme and consistent collections of recycling and food waste without further delay with a review in two years.

Hydrogen

- Publish a plan for distribution and storage of hydrogen and other low-carbon infrastructure outside of clusters and launch the next cluster bidding process in 2022.
- Legislate for 10GW hydrogen production by 2030.

Bioenergy

- The CCC maintain their current position that bioenergy has an important role to play in the energy transition but that it must be used sustainably and inline with a framework that considers priority use. They highlight that they expect this to be published as part of the Biomass Strategy.

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- They express their position that "Policies compatible with the sustainable use of biomass for Net Zero are not yet in place." And that this must be addressed by the biomass strategy.
- The progress report repeatedly stresses the important of the Biomass Strategy also needs to be part of a comprehensive land use strategy, with identification of how land for UK biomass and forestry will be freed up.
- They Call for a mechanism to support the expansion of domestic biomass supply.
- Call for specific targets to increase the area growing energy crops across the UK to 6,000 hectares per year by 2025, and 30,000 hectares per year by 2035
- They are clear that the use of bioenergy with carbon capture and storage (BECCS) needs to be rapidly deployed at scale, while meeting the highest sustainability standards with strong monitoring, reporting and verification frameworks in place.
- It is notable that they have strengthened their wording for the need to speed up the retrofitting of BECCS on exiting biomass infrastructure. "Bioenergy without CCS should be phased out rapidly across power generation and biofuel production plants, where CCS will need to be retrofitted to facilities already in operation and newbuild BECCS plants should start to ramp-up at good pace."
- The CCC also raise a note of caution, saying that Government should have contingency plans for how emission reduction will be achieved if BECCS is not delivered as quickly as is required to meet UK net zero goals.
- On Heating, they call for the publication of plans to phase out boiler replacements in off-grid non-residential buildings from 2024, the off gas grid home heating plan and the low carbon market mechanism policy.

Energy efficiency

- The CCC call for a minimum of EPC Band C or above homes by 2028 for all homes at point of sale and all social housing sector homes, and by 2030 for all private rental homes.
- They want regulation or incentives to take all private owner occupied homes to Band C or above by 2035.

Waste and Landfill Gas

- Chapter 11 specifically focuses on reducing emissions from waste. They specifically raise concern around emissions from incineration and energy from waste continuing to rise, accompanied by declining recycling rates in England and Wales.
- They reiterate that in their balanced pathway to net zero the EfW sector will need to realise 50 MT CO2e abatement through to 2037 and for CCS to be fitted to EfW plants from 2040 with full coverage by 2050.

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- There is a disappointing lack of focus within the report on the role of advanced conversion technologies utilising waste, although they do recognise the role of sustainable aviation fuels and hydrogen in decarbonising hard to treat sectors. However they do warn government against being over reliant on technological solutions, rather than introducing policies that reduce demand.
- There are a wide range of recommendations, including formally setting the proposed target for reducing residual waste (to landfill, incineration or export) by 50% by 2042.
- Alongside ambitious post-2035 recycling targets, the report recommends an assessment of residual waste treatment capacity needs through to 2050, consistent with factors such as the stated goal to end the landfilling of biodegradable waste by 2025. The findings of this review should "inform future incineration/EfW capacity decisions and consider the feasibility of phasing out waste exports by 2030".
- For new EfW plants – "[Government must] Confirm the position of the draft National Planning Statement for Renewables which states that further Energy from Waste plants should only be built where they can be demonstrated to be consistent with residual waste capacity needs and the waste hierarchy, and set out how these assessments will be made. Any new EfW plants (not currently under construction) should also be required to demonstrate readiness for carbon capture deployment. While BEIS should continue to develop plans for shifting towards an Energy from Waste fleet fitted with CCS from the end of this decade."
- The report states (p374) that overall waste sector emissions reduced by 5% in 2020, 'principally' driven by a 9% reduction in methane emissions from landfill.
- There are serious question marks over the reliability of the figures used for methane capture rates. There's no way to measure actual site emissions reliably so they use a model that imagines total landfilling at a notional single site to give a total methane arising value – and then deduct amounts combusted for electricity generation or via flare. Their flaring data in particular is very far from complete.
- The previous year's report stated that capture rates were over 74% in 2016 but fell to 55% by 2019. (pages 128-9 here). It's difficult to see anything in the real world that could have caused that.
- The CCC have also removed the milestones/metric element from the equivalent table on p128 of last year's report (table 11.1, page 379 in this year's report). It's possible that this is a tacit admission that either the figures are completely wrong or (at best) have large margins of error. Therefore we take only limited comfort from a stated 9% reduction in methane emissions from landfill.
- CCC want Defra to set an ambition to improve methane capture and oxidisation rates at landfill sites and review the incentives and broader support necessary to achieve that ambition.

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Future reports

At the accompanying webinar on the report the CCC mentioned internal discussions about increasing the frequency of the report, but a statutory annual report is required in any case.

The new 'monitoring maps' aim to track progress across the sectors and could be updated more regularly.

Please don't hesitate to contact us to discuss any of the content of this briefing.

REA, June 2022

If you have any questions about this briefing please contact Frank Gordon. (policy@r-e-a.net)

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