



GEMSERV SUMMARY: CLIMATE CHANGE COMMITTEE 2024 ANNUAL PROGRESS REPORT TO PARLIAMENT

19 JULY 2024

PUBLIC

THIS DOCUMENT ENCOMPASSES INFORMATION THAT CAN BE RELEASED OUTSIDE OF GEMSERV. THIS DOCUMENT DOES NOT INCLUDE ANY CONFIDENTIAL, PERSONAL OR SENSITIVE INFORMATION.



Gemserv



TABLE OF CONTENTS

OVERVIEW	1
PROGRESS OVER THE LAST YEAR	1
PRIORITY ACTIONS.....	2
HEATING	3
SUMMARY OF PROGRESS.....	3
HEAT PUMPS.....	3
HEAT NETWORKS.....	4
BIOFUELS	4
RECOMMENDATIONS.....	4
HOUSING	5
SUMMARY OF PROGRESS.....	5
RECOMMENDATIONS.....	6
GREEN SKILLS	6
SUMMARY OF PROGRESS.....	6
RECOMMENDATIONS.....	7
HYDROGEN	7
SUMMARY OF PROGRESS.....	7
RECOMMENDATIONS.....	7
ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)	8
SUMMARY OF PROGRESS.....	8
INDUSTRIAL DECARBONISATION	8
UK ETS AND CBAM.....	9
WASTE AND THE CIRCULAR ECONOMY.....	9
NATURE-BASED SOLUTIONS	10
RECOMMENDATIONS.....	10

OVERVIEW

The Climate Change Committee (CCC) has published its [2024 Annual Progress Report to Parliament](#). The report provides an update on the UK’s progress towards net zero and an assessment of the policy landscape that is in place to support it. It also provides a number of recommendations for how the UK Government can accelerate progress towards net zero. This briefing summarises the report’s key findings and recommendations across several relevant sectors.

The UK has committed to reduce emissions in 2030 by 68% compared to 1990 levels, as its Nationally Determined Contribution to the 2015 Paris Agreement. However, with only six years left until 2030, the CCC has found that **the UK is not currently on track to meet this target**. The majority of progress so far has come from phasing out coal-generated electricity, however wider decarbonisation, particularly of the gas network, is urgently needed. Table 1 below gives an indication of the UK’s progress against the CCC’s key indicators.

PROGRESS OVER THE LAST YEAR

Table 1 - Summary of progress against the CCC's key indicators

Indicators of demand for high-carbon activities		Indicators of roll-out of low-carbon technologies and nature-based solutions		Indicators of enablers of the transition	
Car-km (G)	Residential energy demand (G)	Public EV charge points (G)	Electric car sales (O)	Battery cell prices (G)	Trained heat pump installers (R)
Non-residential energy demand (G)	Van-km (O)	Electricity used in industry (O)	Offshore wind capacity (O)	Heat pump installation costs (LGr)	Offshore wind costs (LGr)
Electricity consumption per GVA in industry (O)	Households receiving energy efficiency measures (R)	Onshore wind capacity (O)	Unabated gas share of electricity generation (O)	Solar costs (LGr)	Green jobs (LGr)
Livestock numbers (W)	Airport terminal passengers (W)	Electric van sales (R)	Heat pump installations (R)	Knowledge of EVs (LGr)	Knowledge of heat pumps (LGr)
		Solar capacity (R)	Woodland creation (R)		
		Peatland restoration (R)	Sustainable aviation fuel share (W)		

■ On track (G)	 Too early to say (W)
■ Slightly off track (O)	 Data not reported (Gr)
■ Significantly off track (R)	 No benchmark or target (LGr)



There has been a significant fall in emissions in the last year and some good progress in certain areas, including the zero-emissions vehicle mandate, leaving the non-Net Zero-aligned Energy Charter Treaty, and increasing the funding level for the Boiler Upgrade Scheme (BUS). Nonetheless, according to the CCC's assessment, 'only a third of the emissions reductions required to achieve the 2030 target are currently covered by credible plans'.

The CCC cite inconsistent messaging, cancellations of and delays to important policies by the previous government as key barriers to progress so far. They maintain that 'there was no evidence backing the claim [made by the previous government] that dialling back ambition would reduce costs to citizens'. In particular, they highlight the exemption of 20% of households from the 2035 ban on fossil fuel boilers as an area of serious concern for meeting the UK's net zero targets.

Almost all of the CCC's indicators for low carbon technology roll out are off-track. To address this, the new government must scale up deployment to the following levels by 2030:

- Annual offshore wind installations to increase by at least 3 times.
- Onshore wind installations to double.
- Solar installations to increase by 5 times.
- Approximately 10% of existing homes will need to install a heat pump, with current installations covering just 1% of households.
- New electric cars to increase from 16.5% to close to 100%.

PRIORITY ACTIONS

The CCC has identified some priority actions that must be addressed by the new government to put the UK back on track to net zero. These include:

- **Making electricity cheaper** by eliminating levies on prices. This will support industrial electrification, reduce running costs for low carbon heating technologies and help to reduce household energy bills.
- **Reversing recent policy rollbacks**, including:
 - Removing the exemption for 20% of households from the 2035 fossil fuel boiler phase-out;
 - Introducing obligations on landlords to improve the energy efficiency of rented homes; and
 - Reinstating the 2030 phase-out of new fossil fuel car and van sales.
- **Removing planning barriers for heat pumps, electric vehicle charge points and onshore wind.**
- **Introduce a comprehensive programme for decarbonisation of public sector buildings.**
- **Effectively design and implement the upcoming renewable energy Contracts for Difference auctions**, so that funding and auction design for the Sixth and Seventh Allocation Rounds are appropriate to deliver at least 50GW of offshore wind by 2030.
- **Accelerate the electrification of industrial heat** by strengthening the UK Emissions Trading Scheme (UK ETS) to ensure that its price is sufficient to incentivise decarbonisation and that support is available for a rapid transition to electric heat across much of industry.
- **Publish a strategy to support skills** and workers in sectors which need to grow or transition and in communities that may be adversely impacted.



HEATING

SUMMARY OF PROGRESS

The CCC state that electric heating should become the default in new buildings and over time become the norm for all buildings. It calls for comprehensive policies to speed up heat pump installation and low-carbon heat networks to help to achieve this, stating that “...low-regret decisions...should not be delayed”.

The report highlights the central role that heat pumps are expected to play in the decarbonisation of buildings. The report also mentions the role of heat networks, particularly in decarbonising public buildings, and the use of biofuels as sustainable aviation fuel (SAF). Whilst the previous government made some progress towards net zero targets through the increase in BUS grant funding for heat pumps, broader progress in the sector has been hindered by inconsistent messaging, cancellation of and delays to key policies. The CCC is particularly concerned about the policy to exempt 20% of households from the phase-out of fossil-fuel boilers by 2035, arguing that this could seriously undermine the UK’s ability to reach its net zero targets. The report is also critical of the previous government’s decision to delay the phase out date for fossil fuel boilers from 2030 to 2035.

As a result, **the CCC’s assessment of policies for low carbon heat in buildings has worsened this year.**

Heat Pumps

Heat pump uptake remains off track with current installations covering just 1% of households. In 2023, heat pump installs increased by just 4% compared to 2022 (from 58,000 to 60,000). **This is not on track with the level of increase needed to reach net zero.** The CCC criticises the previous government’s backtracking on the Clean Heat Market Mechanism (CHMM), having been delayed just weeks before its expected start date of April 2024.

There have been some more positive indicators in 2024, with applications to the BUS increasing by 62% in the first 4 months of the year compared to the same period in 2023, primarily due to the increase in grant funding from £5,000 to £7,500. In addition, the CCC identifies the Scottish Government’s consultation on a new Heat in Buildings Bill as a sign of good progress.

To meet net zero targets in the heating sector, the CCC advise the following:

- Heat pump installations must increase ten-fold by 2028 (from 2023 levels) to meet the Government’s target of 600,000 installs per year by 2028.
 - 40% of this is likely to come from installations in new build properties, however uptake is also needed through the retrofit of existing buildings.
- 10% of existing homes will need a heat pump by 2030 to meet net zero targets, up from 1% today.



Training sufficient heat pump installers is identified as a key enabler for the transition to low carbon heat, however the CCC observes that the current number of trained heat pump installers is insufficient to meet net zero. consumer awareness of low carbon systems. The CCC also highlights the importance of raising consumer awareness a critical enabler for low carbon heating uptake. Currently, just 50% of people have knowledge of heat pumps and, whilst this has risen by 15% in the past 4 years, more progress is needed to support uptake.

Heat Networks

Heat networks are identified as another key decarbonisation technology, especially in public buildings. The CCC calls for a comprehensive programme specifically designed to support public sector decarbonisation. The report states that the programme should identify the optimal time to upgrade buildings in line with typical usage cycles and it should begin with the easiest and highest impact buildings.

As part of this, it recommends that the Government identify public buildings that have the potential to act as anchor loads for low-carbon heat networks, where cost effective. As described in the report, by starting with public buildings this will help to develop the supply chain and workforce so that there is the capacity and skills to decarbonise commercial and domestic buildings.

Biofuels

All SAFs are currently produced from biofuel through the hydrogenated esters and fatty acids (HEFA) process. However, from 2030, the amount of SAF allowed to be derived from this process will be capped at 71% and will be continually reduced thereafter. This means that other low carbon biofuel sources will be required to support the transition.

RECOMMENDATIONS

POLICY AREA	RECOMMENDATION	DATE TO BE COMPLETED BY
Buildings	Accelerate heat pump roll-out.	2024
Buildings	Reinstate the new boiler phase-out to cover all homes.	2024
Electricity price reform	Make electricity cheaper by eliminating levies on electricity. This will support industrial electrification and reduce running costs for low carbon heating technologies helping to reduce household energy bills.	2024
Planning	Remove planning barriers for heat pumps. A consultation launched in February 2024 proposed changes to permitted development rights, including removing the requirement for Air Source Heat Pumps to be located at least 1m from the property boundary. Removing this barrier should immediately expand the market for heat pumps.	2024



Buildings (Scotland)	Implement the Heat in Buildings Bill.	2025
Public sector decarbonisation	Introduce a comprehensive multi-year programme for the decarbonisation of public sector buildings. This should be supported by long-term capital settlements in the next spending review.	2025
Cross-cutting (Scotland)	Improve public engagement on low-carbon choices.	2025
Buildings (Wales)	Provide long-term funding for public sector decarbonisation.	2025
Buildings (Northern Ireland)	Consult and act on decarbonising heat.	2025

HOUSING

SUMMARY OF PROGRESS

The report’s headline focus on housing is the previous government’s changes to buildings policy, primarily their cancellation of and delays to important policies needed for a successful transition to net zero homes.

The report critiques current progress made to decarbonise homes and buildings, in particular the decision to scrap proposed Minimum Energy Efficiency Standards for properties in the private rented sector which would have significantly reduced tenants’ energy bills. Any positive steps made towards net zero in the housing sector have been overshadowed by what the CCC calls “mixed messages to investors, businesses and consumers on the UK’s plans” caused by policy reversals and delays. The CCC observed that schemes such as the Energy Company Obligation (ECO) and the Great British Insulation Scheme (GBIS) have had their scope cut.

Overall, building emissions have still fallen. This partly due to a range of policy measures designed to support investments in energy efficiency, including energy supplier obligations. However, the CCC note that this is also due to the total energy demand in both residential and non-residential buildings falling substantially over recent years due to a combination of warmer-than-average temperatures and behavioural changes influenced by the energy crisis.

Positives were seen in 2023 in relation to electricity supply in industry and buildings, with a fall in emissions in line with what is required by 2030. However, trends seen in industry and buildings over the previous seven years are not deemed to be sufficient and any reductions are not the result of sustained decarbonisation action. Demand for gas in buildings did fall in 2023, although it is unclear whether this is due to an increase in energy efficiency measures or behavioural changes. Installations of energy efficiency measures are moving in the wrong direction compared to the scale-up that is required, falling further in 2023 despite already being significantly off track in 2022.



In Scotland, Wales and Northern Ireland, large emission reductions have been seen in recent years in the residential sector, however much of this could be attributed to warmer-than-average temperatures.

RECOMMENDATIONS

POLICY AREA	RECOMMENDATION	DATE TO BE COMPLETED BY
Buildings	Reinstate requirements on landlords to improve energy efficiency in rented properties.	2025
Buildings (Scotland)	Publish plans for non-residential buildings.	2025
Buildings (Wales)	Provide spatial plans for decarbonising buildings and long-term funding for decarbonising social housing and fuel poor homes.	2025

GREEN SKILLS

SUMMARY OF PROGRESS

The green skills sector plays a pivotal role in helping the UK meet its net zero ambitions. Cross-cutting all sectors, structural changes in the UK’s workforce are needed to facilitate the net zero transition. Without active management, there is a risk that an inadequate skills base will inhibit the UK’s ability to meet net zero targets.

The CCC’s report concludes that the number of trained heat pump installers is **significantly off track**. A rapid increase in installer training numbers is required to meet the Government’s target of 600,000 installations per year from 2028. While there is no benchmark or target for green job numbers, the number of people employed in green jobs has increased by 10% in each of the last two years.

The CCC state that the Government must be more proactive in identifying and engaging with communities who will be adversely impacted by the net zero transition. For instance, while efforts to support industrial decarbonisation at the Port Talbot steelworks have been moderately successful from an emissions reduction perspective, the CCC has serious concerns about the plans from a jobs and just transition perspective. The deal with Tata Steel to transition production at Port Talbot to use of electric arc furnaces will lead to up to 2,800 job losses. Included in the recommendations below, the CCC call for a government plan to reskill and support workers like those at Port Talbot who are set to lose their jobs in the transition to net zero. They suggest that the Government should be ambitious in supporting workers and communities in the transition to new opportunities in the low carbon economy, which is essential for upskilling and reskilling the current workforce.



RECOMMENDATIONS

POLICY AREA	RECOMMENDATION	DATE TO BE COMPLETED BY
Green Jobs	The Government must publish an evidence-based Green Jobs Plan. It must include an assessment of when, where and in which sectors there will be skills gaps. It should consider barriers to inclusive and accessible labour market entry into roles needed for the transition, as well as Government plans for action.	2025
Just Transition	The Government should publish a strategy for workers and communities in areas of the economy expected to experience job losses as part of the net zero transition. This should include reskilling packages and tailored support to transition to low-carbon sectors.	2025

HYDROGEN

SUMMARY OF PROGRESS

The report provides a limited update on the role of hydrogen in the UK’s future energy supply. The report references positive recent developments including the Hydrogen Production Delivery Roadmap, Transport and Storage Networks Pathway and business models for Hydrogen Allocation Round 1 published by the previous government in December 2023. However, it highlights the need to “remove biases towards the use of natural gas or hydrogen where electrification is the most economical route to decarbonisation” and urges greater action on domestic and industrial electrification.

The CCC report recommends that the Government should simplify the strategic decision on the role of hydrogen for home heating. The Government has committed to taking this decision by 2026, however the CCC recommends that the Government should take action earlier than this and publicly affirm that electrical heat is the default option in all new buildings and existing properties off the gas grid.

The new government has committed to making Britain a ‘clean energy superpower’ through policies such as a National Wealth Fund to directly invest in ports, hydrogen and industrial clusters. No progress has yet been made on the introduction of this policy.

RECOMMENDATIONS

POLICY AREA	RECOMMENDATION	DATE TO BE COMPLETED BY
-------------	----------------	-------------------------



Heat in Buildings	Simplify the strategic decision on the role of hydrogen for heat.	2025
Heat in Buildings	Clarify hydrogen’s potential to help manage peak demands for both heat and electricity, and its role in hybrid heating systems.	2025
Heat in Buildings	Publicly affirm that electrical heat is the default option in all new buildings and existing properties off the gas grid, prohibiting connections to the gas grid for new buildings from 2025.	2025
Electricity Supply	Publish the Strategic Spatial Energy Plan and use it to identify low-regret electricity and hydrogen infrastructure investments that can proceed now.	2025
Industry (Wales)	Collaborate with the UK Government on industrial decarbonisation. Request specific support for Wales on the adoption of carbon capture and storage and hydrogen in the South Wales Industrial Cluster.	2025

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)

SUMMARY OF PROGRESS

ESG has relevance to many areas the CCC have marked as critical. Particular areas of interest are industrial decarbonisation, the UK Emissions Trading Scheme (UK ETS) and Carbon Border Adjustment Mechanism (CBAM), waste and the circular economy, and nature-based solutions.

Industrial Decarbonisation

The CCC states that comprehensive policy packages must be created to accelerate industrial electrification. The report calls for more supportive policies to resolve barriers to industrial electrification such as investment constraints and high technology costs.

The CCC regards the development of electric arc furnaces as central to delivering industrial decarbonisation and the green steel production. The deployment of these electric arc furnaces at key sites in Port Talbot, Scunthorpe and Teesside will coincide with the decommissioning of blast furnaces, generating a sharp drop in emissions from these processes and positively positioning the UK in low carbon steel manufacturing. However, the CCC raise concerns that electric arc furnaces may cause widespread unemployment in areas reliant on steel manufacturing. To address this, the report calls upon the Government to proactively engage with local communities who may be undermined by these changes and seek new opportunities in the low carbon economy for displaced workers.



UK ETS and CBAM

The report welcomes the positive progress that has been made in tightening the UK ETS cap, although the scheme is still limited in scope. Higher production costs incurred by the reduction of UK ETS allowances will be offset by the introduction of the CBAM from 2027 for in-scope sectors. However, the UK ETS applies to more sectors than the CBAM, hence there is a risk of carbon leakage in those sectors that are in scope of the UK ETS but not the CBAM. In these cases, higher production costs driven by changes to the UK ETS may cause manufacturers to offshore production to nations with less stringent environmental regulation.

The CCC also identifies the UK ETS's low auction price as an issue. A tonne of emitted CO₂ sold on average at £35.08 between January and May 2024 – a drop of £18.30 from the 2023 average price of £53.38. The significant gap between this and the Government's central carbon price of £268.97 makes decarbonisation in traded sectors complex to achieve where unsustainable production may offer lower total costs to manufacturers in the near- and medium-term. This threatens the pace of decarbonisation needed to reach future carbon budget targets. To resolve this, the CCC suggests alignment with the EU ETS, raising the carbon price and ensuring the CBAM is implemented effectively to prevent offshoring.

The report emphasises the value of national-level assistance and financing to trade partners who will be affected by the introduction of the CBAM. This would rapidly accelerate global decarbonisation, with the forming of multilateral partnerships economically beneficial too. This can also occur on a corporate level, with early supply chain engagement valuable to reduce embodied carbon in products, and lower value chain costs ahead of the regulation's rollout.

Waste and the Circular Economy

The CCC identifies the introduction of a Scottish Circular Economy Bill, a Defra-led waste prevention programme and the banning of some single-use plastic items as positive actions. However, there has also been policy confusion in other areas, with a set of collection and packaging reforms delayed to 2025 and further key policy commitments unconfirmed. Furthermore, analysis in the report reveals a stagnation in sectoral emissions production since 2015, driven by the expansion of Energy from Waste (EfW) incineration facilities. These facilities are currently increasing and threaten Carbon Budget Delivery Plan (CBDP) targets. Carbon Capture, Utilisation and Storage (CCUS) deployment is referenced as an important solution to incorporate at facilities longer-term, although infrastructural and technological developments are currently inadequate to meet the 'meaningful falls in emissions' the CCC states is needed for waste sectors by 2030.

The expansion of the UK ETS to incineration and EfW facilities is regarded as a useful step by the CCC yet by itself, it is still insufficient for reducing the amount of waste heading to incineration facilities. Companies should focus on reducing wastage and promoting resource efficiency throughout operations. Shifting to circular modes of production will reduce long-term costs where waste incineration will increasingly incur a financial burden and the recapturing of input materials minimises procurement spend.



Nature-Based Solutions

The CCC’s report stresses the salience of nature-based solutions in future carbon sequestration, particularly in two key areas — tree planting and peatland restoration. The CCC stresses that scaling up action in both areas will be crucial to meet abatement targets for future carbon budgets and overall net zero targets. The CCC has labelled the Government’s action in both areas as **significantly off track** due to the gap between current and target levels.

The Government have set an ambitious target to create 30,000 hectares of woodland per year by 2025. This must be sustained throughout the 2020s to meet abatement targets. Tree planting rates must more than double from current levels to reach this target. However, since 2019, woodland creation has remained ‘relatively static’ at around 13,000 hectares planted per year.

Similarly, despite a slight recent increase, peatland restoration rates still lag behind the levels necessary for net zero. 2023 saw just 12,700 hectares of peatland restored, significantly short of the Government’s target of 32,000 hectares per year by 2026. Peatlands are an important carbon sink which currently store an estimated 3.2 billion tonnes of CO₂e in the UK.¹ Organisations should incorporate nature-based solutions into sustainability agendas to meet ESG targets and accelerate decarbonisation.

RECOMMENDATIONS

POLICY AREA	RECOMMENDATION	DATE TO BE COMPLETED BY
Cross-cutting	Ensure the price of allowances in each carbon budget period outweighs the cost of relative decarbonisation approaches outlined in the CBDP.	No date given
Waste	Introduce a moratorium on expanding EfW capacity subject to a review of the role of facilities respective to the Government’s emissions targets. Explore the deployment of CCUS technology in these facilities.	No date given
Industry	Develop policies for industrial electrification that address general barriers such as investment constraints, as well as specific barriers for different industrial subsectors including non-road mobile machinery.	No date given
Industry	Deliver plans to decarbonise the UK’s iron and steel industry while ensuring a just transition, thus protecting the jobs and livelihoods of local communities.	No date given
Agriculture and land use	Provide adequate funding and delivery support for tree planting to meet the UK Government’s afforestation target of 30,000 hectares per year by 2025. The CCC suggests streamlining processes to attract private investment.	2025

¹ UK Centre for Ecology and Hydrology. Peatlands factsheet. Available at: [Peatland factsheet.pdf \(ceh.ac.uk\)](https://www.ceh.ac.uk/resources/factsheets/peatlands)



Agriculture and land use	Implement a delivery mechanism to restore degraded peatland. This mechanism should address barriers to increasing capacity and facilitate the attraction of private capital and investment.	2025
--------------------------	---	------

