

Net Zero Policy Tracker: June 2023 update

Methodology and assumptions

The Green Alliance Net zero policy tracker measures the emissions savings from national UK level policies adopted during this Parliament (1 Jan 2020 – 30 March 2023) across seven sectors that cover the whole UK economy: power; industry; heat and buildings; transport; agriculture and land use; waste and fluorinated gases and greenhouse gas removals. The transport sector includes surface transport as well as aviation and shipping. We include international aviation and shipping in this to be consistent with the government's net zero strategy.¹ In relevant sectors, the tracker also includes contributions to emissions savings from devolved policies.

We track the government progress against its own pathways to achieve net zero by 2050 including the net zero strategy pathways for each sector. It is possible that the pathways could be made more ambitious, but this is not the focus of this analysis.

Policy categorisation

All government policies in the policy tracker are categorised into one of four categories depending on their level of certainty, as follows:

- **Policy ambition:** represents a government target that has been announced in a strategy document or equivalent, but the associated underlying policy details are insufficient, or have not yet been put out for consultation, or confirmed in law.
- **Policy under consultation:** the policy is being publicly consulted on to define the details of the implementation or if due to be implemented via a parliamentary act, is undergoing passage through the Houses of Parliament. Even if the consultation has ended, a policy will remain in this category until a government response has been given confirming the details of the policy that will be implemented (eg timeline) or parliamentary approval has been granted.
- **Confirmed policy:** the policy has been confirmed in a government announcement or implemented through a parliamentary act.
- **No policy:** this represents a gap in policy to achieve the emission reductions required, due to no policy in place or a lack of publicly available data.

The categorisation of policies has been internally reviewed by subject experts at Green Alliance to ensure they are consistent within and across sectors. However, there is some level of subjectivity with the categorisations which should be acknowledged.

This categorisation tracks the government's progress to implement policy frameworks which will enable the emission reductions required to be achieved; they are not tracking the successful delivery of policies.

Emissions calculations

The emissions savings needed in each sector over the fifth carbon budget period (2028-2032) is the difference between the projected emissions from the government's net zero strategy (NZS) pathway and the baseline (emissions projection if no further policy is implemented) between 2028 and 2032, summed over the fifth carbon budget period. The pathways and baselines are taken from the Climate Change Committee (CCC)'s analysis of the government's net zero strategy (NZS), as detailed in the CCC's 2022 government progress report.ⁱⁱ The only exception to this is the transport sector, in which the aviation baseline and pathway have been updated based on the Jet Zero Strategy (JZS), which superseded government policy on aviation in the NZS.ⁱⁱⁱ

Note that the baseline (Scenario 1) and the pathway (Scenario 2) from the JZS include 74 per cent and 70 per cent increases in projected passenger demand, respectively, between 2018 and 2050. Therefore, emissions savings needed from aviation in the policy tracker are largely based on technological improvements and the uptake of sustainable aviation fuels. These needed savings are estimated to be small during the fifth carbon budget period 2028-2032 (total of 14.2MtCO₂e savings). Hence, they do not make a significant contribution to the emissions savings needed for the transport sector overall during this period (260.3MtCO₂e). However, this does not mean that the government's ambition for aviation emission reductions is necessarily sufficient.

Note that we do not track against the legal fifth carbon budget target but rather that government pathway as per the NZS during the fifth carbon budget period (2028-2032), which is more ambitious in terms of emissions savings.

The estimated emissions reductions from each policy are taken from government sources or impact assessments, where these are available. When government estimates are not available, other sources or Green Alliance's own analysis (for example, our work on the emissions savings from a 2030 phase out of the sale of new petrol and diesel cars) is used to estimate projected emissions savings. When calculating emissions savings for the fifth carbon budget period, it is generally assumed that emissions savings are linearly distributed over a given time period. All emissions savings are reported in terms of millions of tonnes of carbon dioxide equivalent, using the 100 year lifetime global warming potentials for other greenhouse gases. The sum of the emissions savings from each policy in each sector corresponds to the total emissions savings for that sector, and these are broken down by the policy categories outlined above. The emissions savings are attributed to sectors based on the categorisations laid out in the NZS. For example, where emissions savings from hydrogen are attributed to the sectors it is projected to be used, rather than where it is produced.

Changes to the tracker since March 2023 update

The policy tracker has been updated to reflect the government's announcements and changes to its policy pathways, which were detailed in documentation released on March 30th 2023. This includes the Powering Up Britain (PUB)^{iv} and the Carbon

Budget Delivery Plan (CBDP)^v documents, and other documents released including the new ZEV mandate consultation^{vi}. The PUB documents highlight any new government announcements which could be new policies or could have an impact on the certainty of existing policies. The CBDP documents outline the emissions savings delivered by each of the government's policies and present the overall emissions trajectory for each sector, including any changes to the government's sectoral baselines. The ZEV mandate consultation provides details on how the government's plans to decarbonise transport have changed.

The policy tracker has been updated based on the following approach:

1. Any new policies or changes to the categorisation of existing policies that have been announced in the PUB have been reflected in the policy tracker.
2. The sectoral baselines in the policy tracker were corrected based on the changes announced in the CBDP, reflecting updated estimates of future emissions across sectors.
3. The sectoral pathways in the policy tracker were compared against those in the CBDP, and the policy tracker pathways were updated by considering the following:
 - Where policies listed in the CBDP are not deemed to be credible or not yet announced, these are not considered in the revisions.
 - Where the original emissions estimates for specific policies either over or underestimate those provided in the CBDP, these have been revised to the govt estimates where possible. This is done because often our estimates in the March 2023 update were made based on insufficient information and therefore the government's estimates are likely to be more accurate.

As a result, the updated policy tracker maintains the same analytical framework used in the original policy tracker, but the numbers have been revised based on new government updates and the improved clarity on existing policy provided by released documentation.

Due to some policies in the CBDP not being given any emissions savings credit if they are not deemed credible policies by Green Alliance, our updated policy tracker pathway is somewhat less ambitious overall than the government's but is better reflective of the actual state of the policy landscape, taking into the account the risks of unannounced policies not becoming reality.

Sector specific changes

- **Power:** Apart from changes to policy categorisation due to new announcements, the power sector emissions savings were not updated because the policy tracker adopts the CCC's sixth carbon budget modelling framework for the power sector and this is not directly comparable to the way the government accounts for emissions in the sector.

- **Industry:** Due to announcements in PUB documents related to CCUS and previously unaccounted for policies in the CBDP, a greater share of the emissions savings are now covered under confirmed policy. In addition to this, the emissions savings required to be on track have been reduced because of changes in the government baseline detailed in the CBDP. This change is due to revised estimates of oil refinery output in the future.
- **Heat and buildings:** The emissions savings from heat and buildings policies have been revised downwards due to an overall overestimation of savings from low emissions heating technologies and energy efficiency measures. This was identified after comparing the original estimates against the government's own estimates in the CBDP. The revised numbers are now in agreement with the government's projections of its policies for this sector.
- **Transport:** The emissions savings delivered by policy and required to be on track have been revised based on the details included in the CBDP and the new ZEV mandate consultation.^{vii} The changes to the savings include no longer giving credit for improvement in the efficiency of internal combustion engine vehicles given the apparent change to government ambition, and revision to the emissions savings from the deployment of hybrid vehicles. In addition, we no longer give credit for devolved policy on transport as this is not considered in the CBDP and would otherwise potentially result in double counting. The emissions savings target has been downgraded to reflect previous historical policies (related to HGVs, buses and carbon reporting) that are expected to deliver some of these savings, which was not previously given credit for until there was greater clarity from the government in the CBDP.
- **Agriculture and land use:** The emissions savings delivered in this sector have been increased to match the government's estimates in the CBDP. The emissions savings required have also been lowered because the government revised the projected future emissions from peatlands based on a more accurate methodology.
- **Waste and fluorinated gases:** The emissions delivered from waste and fluorinated gas policies have been revised to match government estimates in the CBDP, resulting in a reduction in emissions savings delivered. As part of this, the policy tracker no longer gives credit to targets from the Environment Act as these are not acknowledged in the government's analysis. The emissions savings required to be on track have been modified to consider previous historical policies related to fluorinated gases that are expected to deliver some of this target.
- **Greenhouse gas removals:** The emissions savings delivered from policy have been updated to reflect the government's own estimates in the CBDP.

References

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- ⁱ Department for energy security and net zero and department for business, energy & industrial strategy, 2021, *Net Zero strategy: build back greener*
 - ⁱⁱ Climate change committee, 2022, *Progress in reducing emissions: 2022 report to parliament*
 - ⁱⁱⁱ Department for transport, 2022, *Jet Zero strategy: delivering net zero aviation by 2050*
 - ^{iv} Department for energy security and net zero, 2023, *Powering up Britain*
 - ^v Department for energy security and net zero, 2023, *Carbon budget delivery plan*
 - ^{vi} Department for transport, 2023, *A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK*