

# Net zero policy tracker: March 2023 update

## Methodology and assumptions

This policy tracker measures the emissions savings from national UK level policies adopted so far during this parliament (1 January 2020 to 28 February 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.<sup>1</sup> 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. It is possible that the pathways could be made more ambitious but this has not been considered as part of this analysis.

### Policy categorisation

All government policies in the 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 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 (the emissions projection if no further policy is implemented) between 2028 and 2032, calculated over the fifth carbon budget period.

The pathways and baselines are taken from the Climate Change Committee's (CCC's) analysis of the government's net zero strategy (NZS), as outlined in the CCC's 2022 progress report to government.<sup>2</sup> 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.<sup>3</sup>

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 (total of 14.2MtCO<sub>2</sub>e savings). Hence, they do not make a significant contribution to the emissions savings needed for the transport sector overall during this period (280.6MtCO<sub>2</sub>e). However, this does not mean that 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 the government pathway as per its NZS for the period of the fifth carbon budget, 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 as 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 individual sectors based on the categorisations laid out in the NZS. For example, where emissions savings from hydrogen are attributed this is calculated for sectors in relation to where it is projected to be used, rather than where it is produced.

## **Additional information to accompany the tracker**

We have identified immediate priorities for each sector; however, these are not the only measures the government should be taking to ensure it meets its legal commitment to net zero by 2050. Across all sectors, a significant proportion of emission reductions required are covered by policy under consultation. Delivery of these policies should be a short term priority for the government.

### **Overarching priorities:**

- Increase transparency around government proposals and the expected savings, and report annually on whether sectoral pathways remain appropriate, or the balance of savings needs to be adjusted across all sectors.
- Consider opportunities across all sectors for increased savings through behaviour change, more efficient use of resources and greater circularity.

### **Priorities for each sector:**

#### **Power:**

- Create a clean power plan: a detailed roadmap with interim targets of how power sector decarbonisation by 2035 will be achieved, offering much needed certainty to private investors.
- Ramp up renewable energy capacity: to achieved 50GW of offshore wind by 2030 and unblocking planning restrictions around onshore wind and solar projects.

#### **Industry:**

- Deliver policies currently under consultation, such as carbon capture and storage and scaling up hydrogen production for industry. These policies currently represent 41 per cent over overall emission reductions required from this sector during the fifth carbon budget period.
- Create markets for low carbon materials and more efficient use of resources, ie through expanding carbon footprint reporting for new buildings.
- Resource efficiency and circular economy models must be applied to all sectors, but would have a significant impact in industry.

#### **Heat and buildings:**

- Introduce a heat pump mandate, in line with the proposal laid out in the government's response to the consultation on market-based mechanisms for low carbon heat. This would catalyse a rising percentage of heat pumps installed per year until gas boiler phase

out, which we recommend should come into force in 2033. Through the mandate supplies bear the brunt of costs. A heat pump mandate would address 25MtCO<sub>2</sub>e within the policy ambition category.

- Energy efficiency: bring forward the proposed £6 billion government spending on energy efficiency announced in the 2022 autumn statement to be spent within this parliament, not postponed until 2025.

#### **Transport:**

- Legislate an ambitious Zero Emission Vehicle mandate starting in January 2024.
- Reduce car kilometres driven across the UK by 20 per cent by 2030, akin to the Scottish government’s ambition.<sup>4</sup> Such demand reduction policies are needed to meet climate targets, in addition to technological solutions, as well as improving air quality and reducing congestion. This Scottish government ambition represents 4MtCO<sub>2</sub>e in the policy ambition category; expanding this to the UK would save a further 40.7MtCO<sub>2</sub>e, increasing the policy covering transport emissions reductions required over the fifth carbon budget period from 82 per cent to 97 per cent.

#### **Agriculture and land use:**

- Use the Environmental Land Management Scheme (ELM) on ten per cent of currently farmed land by 2030, to create woodlands, wetlands and other semi-natural habitats.
- Allocate a third of the existing ELMs budget to Landscape Recovery (£1 billion existing funding is to be reallocated). This will have the largest impact on carbon and is the best option financially for the poorest farmers.
- Develop a land use framework that shows how to achieve net zero by 2050 and end nature declines by 2030. This must include quantification of both the required expansion of land managed primarily to sequester carbon and provide natural habitats, and the extent of peatland restoration in the lowlands and uplands.
- Reduce the use of chemical fertiliser.

#### **Waste and fluorinated gases:**

- Rapidly deliver planned reforms to improve waste recycling, ie the deposit return scheme for drinks containers, and implement waste reduction policies.

- Address shortcomings caused by the landfill tax which is driving incineration regardless of the implication for emissions.

### **Greenhouse gas removals:**

- Create an Office for Carbon Removal to regulate the industry and guarantee the credibility of carbon offsetting. The Office for Carbon Removal would be responsible for managing and overseeing the fair allocation of greenhouse gas removal capacity across all sectors of the economy where required.

### **Endnotes**

<sup>1</sup> Department for Energy Security and Net Zero and Department For Business, Energy and Industrial Strategy, 2021, *Net zero strategy: build back greener*

<sup>2</sup> Climate Change Committee, 2022, *Progress in reducing emissions: 2022 report to parliament*

<sup>3</sup> Department for Transport, 2022, *Jet zero strategy: delivering net zero aviation by 2050*

<sup>4</sup> Transport Scotland, January 2022, *A route map to achieve a 20 per cent reduction in car kilometres by 2030*