

NET ZERO TEST

WWF-UK is calling on the UK government to apply a Net Zero Test to all spending and taxation decisions in Budgets and Spending Reviews to ensure that the overall package puts us on track to meet our climate and nature goals.



FOR
YOUR
WORLD

The impacts of the climate emergency are becoming clearer by the day, while nature is in freefall. Urgent action is needed to limit global warming to 1.5°C and the UK must play a leading role. Climate policy and economic policy can no longer be viewed in isolation from one another – the net zero transition will cause profound economic and social change. To ensure that the UK seizes the opportunities of the transition and prosperity is distributed across the country, government needs to better understand the environmental impacts of its spending.

In this context, WWF-UK is calling on the UK government to apply a Net Zero Test to all spending and taxation decisions in Budgets and Spending Reviews to ensure that the overall package puts us on track to meet our climate and nature goals. A range of organisations across the economy have expressed support for the Net Zero Test, including CBI, the Corporate Leaders Group, Energy-UK, National Grid, and the Climate Change Committee.

Report prepared with analytical support from Vivid Economics

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1. EXECUTIVE SUMMARY

WHAT IS THE PROBLEM?

While the Net Zero target is now part of UK law, and government has a way of assessing the emissions impact of individual policies, it is difficult to ascertain total spending on green policies versus polluting ones. There is also no way of assessing if the overall choices made in Budgets and Spending Reviews are getting us on track for Net Zero emissions or taking us in the opposite direction. Given that government expenditure represents around 45% of national incomeⁱ, it is essential that it is being invested in policies that protect the planet and turbocharge a green economy, not wasted on polluting assets and schemes that cause dangerous climate change and damage people's health.

WHAT IS WWF-UK DOING TO SOLVE THIS?

WWF-UK has created a Net Zero Test, which is comprised of two elements:

- A budget tagging tool, which provides an assessment of the alignment of spending and taxation policies in Budgets or Spending Reviews with a range of climate and other environmental criteria, showing how much is being spent on green policies versus polluting ones.
- An emissions estimate tool, which estimates the impact of policy decisions outlined in Budgets and Spending Reviews on greenhouse gas emissions, in order to assess the overall impact of fiscal events on progress towards Net Zero.

The NZT aims to sit alongside and strengthen existing processes for aligning fiscal policy with environmental goals. The Test can incorporate calculations of environmental impacts derived from Green Book assessments and departmental spending proposals submitted into a CSR, as well as estimating emissions where these calculations have not been undertaken. The Test would help HM Treasury comply with the recommendations of the Climate Change Committee (CCC) to introduce a Net Zero Testⁱⁱ and of the Public Accounts Committee that the 2021 Spending Review be subject to a full environmental impact assessmentⁱⁱⁱ. Finally, adoption of the NZT would enable the UK to build on its decision to join the OECD Paris Collaborative on Green Budgeting and demonstrate international leadership in this space.

BENEFITS OF ALIGNING SPENDING AND TAXATION WITH NET ZERO

Introducing a Net Zero Test can help government to target investment towards green infrastructure, unleashing a wave of green private sector spending and unlocking £90 billion of annual benefits, including green jobs and export opportunities, warmer homes, and more green space for everyone. Investment in low-carbon infrastructure can boost long-term productivity and has high returns, as every pound spent on low-carbon investment options returns 3-8 times the initial investment^{iv}.

Investing in Net Zero is good for communities and can help to deliver the Government's levelling up agenda by creating thousands of high-quality green jobs, many in areas that are experiencing high unemployment after the pandemic.

As well as being in predominantly low-wage areas, these jobs are better paid than the national average and those in carbon-intensive industries. Many can be created quickly – for example, delivering a Net Zero building stock would create 350,000 additional jobs in the construction sector by 2028^v, while investing in public transport, such as electric rail and bus services, could create 230,000 jobs^{vi}.

The NZT will help government manage the Net Zero transition to ensure that UK citizens benefit, including health benefits and savings to the NHS from more active travel, reduced air pollution and more access to green space, and financial savings, through reduced energy bills and fuel costs, as well as higher value pensions. It will also enable increased access to green space and thriving wildlife, through expanded and better maintained forests and grasslands and cleaner seas.

Investing now can position the UK as a leader in the global markets of the future and build resilience into public finances. Green exports could grow from £5billion to £80billion per annum, supporting 200,000 export-orientated jobs by 2050 and a further 270,000 jobs in domestic low-carbon opportunities^{vii}. Acting early will also safeguard the UK from major costs further down the line - delaying for ten years would double the amount of investment to hit the same target^{viii}, and would risk causing a major recession^{ix}. The UK's Net Zero pathway will generate enough carbon tax revenues to cover the public costs of the transition twice over, and will reduce public debt, making early action the fiscally responsible course of action^x.

RESULTS FROM APPLYING THE TEST TO THE MARCH 2021 BUDGET

WWF-UK applied the Net Zero Test to the March 2021 Budget. The results showed that the climate change mitigation policies set out in the Budget equate to just £145 million, while policies that will drive up emissions – like the fuel duty freeze – equate to over £40 billion. The tool also highlighted a clear ambition gap – it would cost less than 1% of GDP per year to build a clean, safe, prosperous future for the UK¹, but the value of climate positive policies in the Budget adds up to just 0.01% of GDP per year.

The March 2021 Budget is initially expected to increase UK emissions. This is due both to the presence of environmentally harmful policies, such as freezing Carbon Price Support and freezing fuel duty, as well as missed opportunities for greening the economy, particularly the decision to introduce a super deduction for capital allowances without green conditionality. From the 2024-25 fiscal year, the announcements made in the Budget are expected to lower emissions, driven by the emissions savings resulting from the UK Emissions Trading Scheme, as well as the tax increases that have been introduced to repair public finances – these are expected to have a slowing effect on the economy and hence emissions.

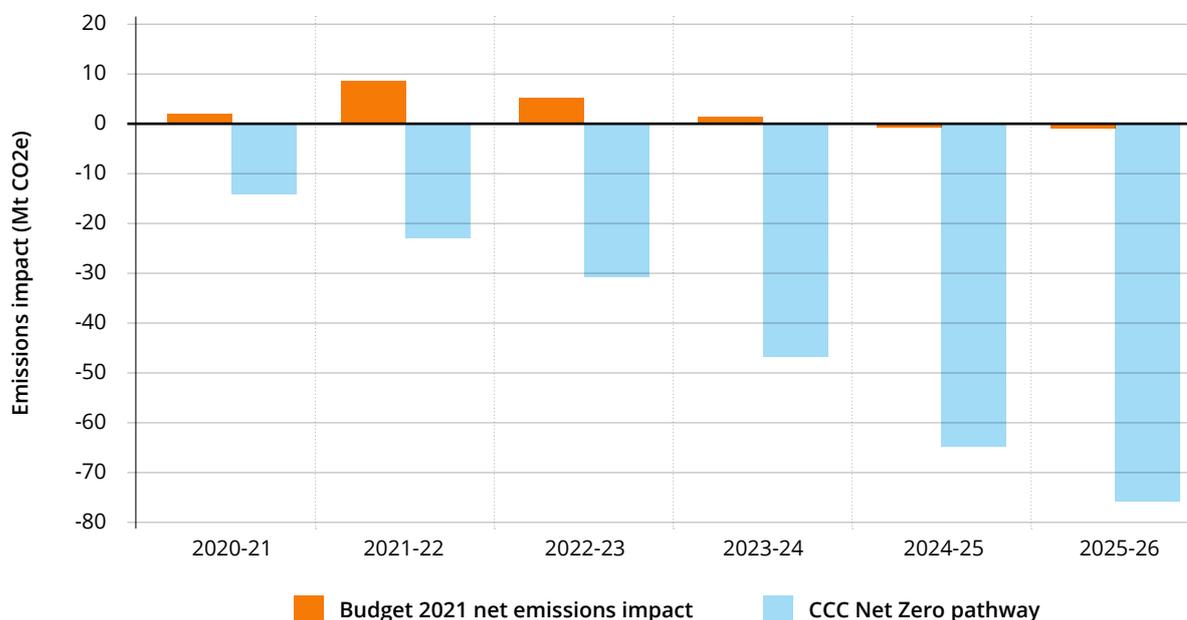
The emissions estimate tool estimates that the Budget will increase net emissions by 16.4 Mt CO₂e over the six-year period; this is equivalent to 5.0% of 2020 UK emissions. Figure 5 below summarises the impact on emissions from the Budget, compared with the emissions reductions required by the CCC Net Zero Pathway. This suggests that the policy commitments outlined in the March 2021 Budget are insufficient to deliver the low-carbon transition the UK needs to meet its Net Zero commitment.

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¹ <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf>

Overall, the results of the NZT suggest that the March 2021 Budget is not aligned with the government's legally binding Net Zero commitment.

Emission impact of the March 2021 Budget relative to CCC pathway



WHAT SHOULD GOVERNMENT DO NOW?

If they are to deliver on their climate promises, UK government must make sure public money is spent on building towards the greener, cleaner future that we all want. This should be done by introducing a Net Zero Test, requiring the Treasury to measure all future spending plans against the UK's climate and environment commitments.

This would mean that, at each budget or spending review:

- Budget tagging is used to undertake a systematic analysis of the alignment of all spending and taxation policies with a range of climate and other environmental criteria
- Quantitative analysis of carbon emissions is also required for all spending and taxation policies taken within a Budget or Spending Review.
- HMT looks to publish the results of the above analyses, together with an assessment of whether the overall emissions impact is compliant with a net zero trajectory, and a summary of how the analysis was used to inform the spending/taxation decisions made in the budget or spending review.
- The Office for Budget Responsibility (OBR) would have responsibility, guided by the CCC's professional advice and assessment on carbon budgets, for assessing government delivery against the Net Zero Test, reporting the results to Parliament.

NEXT STEPS FOR IMPLEMENTING THE NET ZERO TEST

To implement the NZT, the Treasury should develop a strategic plan to ensure that:

- **There is a clear commitment to mainstreaming Net Zero into fiscal policy** by:
 - **Undertaking a climate and environmental budget tagging exercise** on the 2021 CSR
 - **Committing to apply a full Net Zero Test**, involving both budget tagging and emissions estimates, to all future fiscal events.
- **Departments are supported to adopt the NZT in their own processes for budget preparation.** The Treasury can support capacity-building among Departments to use the NZT in departmental budgetary processes.
- **The UK engages closely with the OECD Paris Collaborative on Green Budgeting.** This will help to build capacity for integrating climate and environmental objectives into fiscal policy.
- **The quality of inputs to the NZT is iteratively improved.** The ability of the NZT to deliver robust results depends on the information on each budget line that is entered into it. In particular, the Treasury could:
 - **Encourage a disaggregated expenditure breakdown of large projects**, to isolate the spending which is ‘environmentally relevant’.
 - **Align the NZT with existing approaches for estimating emissions**, to ensure that emissions estimates from Green Book assessments or CSR submissions for capital expenditure can be integrated within the NZT. This may include compiling these emissions assessments centrally.
 - **Support capacity-building among departments** to assess emissions accurately and consistently, for example through strengthening guidance and developing clear templates.
- **NZT methodologies are regularly reviewed and refined.** Methodologies for assessing emissions should be regularly reviewed, for example by comparing *ex ante* estimates of emissions with *ex post* evaluations. The Treasury could also consider developing a broader set of policy archetypes for the NZT, including archetypes which are more relevant to CSRs, such as large-scale infrastructure projects.
- **Scrutiny of NZT results is facilitated.** In adopting the NZT, the Treasury should ensure there are clear processes for review and validation, for example through engagement with the OBR, to ensure the robustness of the analysis. The Treasury should also consider publishing the results of the NZT to support greater transparency, accountability, and public engagement on how the government is using fiscal policy to delivery Net Zero and other environmental goals.
- **The NZT is used at key stages of decision-making.** Using the NZT for awareness-raising is likely to have limited impact on aligning fiscal policy with Net Zero. Instead, the Treasury should utilise the NZT across key stages in the budget cycle (planning, approval, implementation, and audit).
- **The NZT is extended to encompass to other environmental objectives.** Strong and healthy ecosystems help fight climate change as well as building resilience. The first step in extending the NZT to include other environmental objectives would require developing a clear set of nature-relevant metrics which could be assessed in the policy appraisal process.

¹ <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf>

2. INTRODUCTION AND CONTEXT

The UK's ambitious climate targets will require decisive and coordinated government action. In 2019 the UK became the first major economy to legislate to achieve Net Zero emissions by 2050. Delivering this target will enable the UK to maintain its climate leadership, create new economic opportunities and deliver critical benefits for the natural environment and people's wellbeing. However, Net Zero will not happen without concerted focus from government. The Climate Change Committee has estimated that achieving Net Zero will require increasing low carbon investment to £50 billion annually by 2030. Although direct public sector investment will constitute a relatively small proportion of this, government policy plays a critical role in directing private sector investment and engaging households with the challenge.

WWF-UK has developed a Net Zero Test to ensure that fiscal policy helps deliver the UK's climate targets. Fiscal policy is the use of government spending and taxation to influence the economy. The UK's fiscal events – annual Budgets and multi-year spending reviews – determine the allocation of fiscal resources for achieving national goals and reflect the relative priorities across government. The UK's ambitious climate agenda requires Net Zero to be built into the processes of allocating budgets to departments, prioritising policies and ensuring a coordinated policy approach. The Net Zero Test (NZT) provides the Treasury with a tool to support the mainstreaming of Net Zero into fiscal policy. It has two components: (1) reviewing financial flows announced in a fiscal event to assess consistency with environmental objectives and (2) quantifying the aggregate impact of fiscal events on emissions.

The NZT aims to sit alongside and strengthen existing institutional practices for monitoring the emissions impact of fiscal policy. These existing efforts take three forms:

- **The Climate Change Committee (CCC) is an independent, statutory body which reports on progress made in reducing greenhouse gas emissions and climate change adaptation.** It sets out carbon budgets and monitors progress in achieving these. The NZT can support assessment of whether government fiscal policy is consistent with CCC targets.
- **Since 2020, departmental submissions to Treasury ahead of Spending Reviews are required to include a detailed assessment of the climate impacts of their capital expenditure.** The UK Department for Business, Energy and Industrial Strategy (BEIS) has supported Treasury in developing guidance for these submissions and scrutinising departmental bids. These climate assessments have not been published, with the Public Accounts Committee noting that not all departments complied with these requirements and that departments applied inconsistent methodological approaches.¹ Where detailed climate impact assessments exist, the NZT can incorporate these into its assessment of the aggregate impact of fiscal events on emissions.
- **All policy, programme and project proposals are required to undertake a Green Book assessment as part of the appraisal process.** Where the project is assessed to have a tangible impact on emissions, the Green Book assessment requires the impact on emissions to be quantified and monetised. BEIS has recently set out a revised

¹ House of Commons Public Accounts Committee (2021) Achieving Net Zero. Available: <https://committees.parliament.uk/publications/4921/documents/49419/default/>

approach to valuing greenhouse gas emissions in policy appraisal.² Although the guidance outlines that these assessments should be carried out on policies which have both a direct and indirect impact on emissions, presently emissions assessments are only carried out for a narrow subset of policies. The NZT supplements this by providing an approach to estimating emissions for all policies (spending and taxation), so the Treasury can understand the aggregate emissions impact of fiscal events.

The NZT has been designed to support the UK government in its commitment to aligning fiscal policy with Net Zero. In June 2021 the UK government committed to joining the OECD Paris Collaborative on Green Budgeting, a cross-governmental initiative to support the incorporation of climate and environmental considerations into fiscal policymaking. By supplementing existing institutional structures, the NZT will support the Treasury in leveraging its unique oversight role to ensure the delivery of Net Zero.

In particular, the NZT could be used by Treasury to flag policies which are expected to have a large negative impact on emissions. This could facilitate discussions with departments about whether the policy is in line with government strategic objectives, whether the policy could be altered to reduce the impact on emissions, or whether there might be scope for ambitious policy elsewhere to counteract these impacts.

Given the Treasury's role in ensuring that the allocation of fiscal resources reflects national goals, the NZT can also support Treasury to prioritise policies and monitor the alignment of fiscal policy with Net Zero delivery. The tool can also be used by civil society to advocate for greater ambition and greater transparency in the meeting of Net Zero.

This report introduces the NZT and pilots it on the March 2021 Budget. The rest of the report is structured in the following way:

- Part Three introduces the methodology for the NZT;
- Part Four applies the NZT to the March 2021 Budget;
- Part Five provides a conclusion and recommendations for taking the NZT forward.

² BEIS (2021) Valuation of greenhouse gas emissions: for policy appraisal and evaluation. Available: <https://www.gov.uk/government/publications/valuing-greenhouse-gas-emissions-in-policy-appraisal/valuation-of-greenhouse-gas-emissions-for-policy-appraisal-and-evaluation>

3. METHODOLOGY

The objective of the NZT is to help assess the alignment of fiscal policy with the the UK’s legally binding Net Zero target. It achieves this through two components:

- a **budget tagging tool** provides a qualitative assessment of the consistency of financial flows announced in Budgets or Comprehensive Spending Reviews with environmental objectives.
- an **emissions estimate tool** estimates the impact of individual policy decisions outlined in Budgets and Comprehensive Spending Reviews on emissions to estimate the aggregate impact of fiscal events on progress towards Net Zero.

The methodologies for the two components are outlined below.

The NZT is presented in an Excel workbook. The analysis of the tool is summarised in a user-friendly summary sheet which presents the key results. TABLE 1 compares the objectives and outputs of the two tools, with the section below providing a high-level description of the methodology.

TABLE 1 COMPARISON OF THE BUDGET TAGGING TOOL AND THE EMISSIONS ESTIMATE TOOL

Tool	Objective	Approach	Environmental dimension	Outputs
Budget Tagging Tool	Assess whether the allocation of fiscal resources outlined in a fiscal event is consistent with environmental objectives.	Qualitative scoring	Climate change mitigation, climate change adaptation, biodiversity, water management, air pollution, circular economy.	<ul style="list-style-type: none"> • Absolute value of environmental positive and negative spending and taxation decisions. • Value of mitigation positive and negative spending decisions, expressed as a proportion of estimated requirements from the CCC’s sixth Carbon Budget • Spotlight on positive/negative environmental policies. • Score for fiscal event, to allow comparison over time or across environmental dimensions.
Emissions Estimate Tool	Estimate the total impact of emissions resulting from a fiscal event.	Quantitative	Mitigation	<ul style="list-style-type: none"> • Emissions impact of fiscal event, disaggregated by year and department.

Tool	Objective	Approach	Environmental dimension	Outputs
				<ul style="list-style-type: none"> • Contextualisation of emissions impact, for example to CCC Net Zero Pathway, to support policymaker assessment. • Spotlight on positive/negative environmental policies.

Source: Vivid Economics

BUDGET TAGGING TOOL

Budget Tagging Tools are well-established methods for tracking climate and environment-relevant expenditure and taxation decisions, informing decision-making and building accountability. Since 1998, the OECD Development Assistance Committee has monitored development finance flows targeting the objectives of the Rio Conventions on biodiversity, climate change and desertification by requiring members to indicate for each development finance activity whether it targets environmental objectives. In 2021 France adopted green budget tagging as part of its green budget programme, with the aim of improving transparency around environmental policymaking. The Budget Tagging component of the NZT has drawn on these international experiences, as well as established best practice guidelines.³⁴⁵

The Budget Tagging Tool developed through this research qualitatively scores each spending and taxation decision announced in fiscal events against six environmental dimensions. The six environmental dimensions are taken from the European Union’s Sustainable Finance Taxonomy which covers: (1) climate change mitigation; (2) climate change adaptation; (3) biodiversity; (4) water management; (5) air pollution and (6) circular economy. Each policy decision is scored according to a qualitative assessment of its likely environmental impact, as FIGURE 1 outlines. For example, for the mitigation dimension, the assessment includes whether the policy will increase the emissions intensity of the economy. The assessment considers: the impacts which occur as a direct result of spending; the indirect impacts, which include the increased demand for inputs; and the induced impact, which captures the broader economic impact from the spending, for example through changes to incomes.

³ OECD (2021) Green Budget Tagging. Available: <https://www.oecd.org/gov/budgeting/green-budget-tagging-fe7bfcc4-en.htm>

⁴ UNDP (2019) Climate Change: Knowing What You Spend. Available: <https://ndcpartnership.org/toolbox/climate-budget-tagging>

⁵ World Bank (2021) Climate Change Budget Tagging. Available: <https://openknowledge.worldbank.org/handle/10986/35174>

FIGURE 1 BUDGET TAGGING CATEGORIES AND SCORE

N2	N1	Z	P1	P2
Strong negative progress towards environmental outcomes	Negative progress towards environmental outcomes	Neutral effect on environmental outcome- not relevant for environmental outcomes	Positive progress towards environmental outcomes	Strong positive progress towards environmental outcomes
Road Investment Strategy, £18bn.	Local road maintenance ¹ , £1.7bn.	Schools resource expenditure, £150bn.	Transition farm support to deliver greater environmental and productivity benefits, £2.4bn.	BEIS core research, £16bn.
-5	-2.5	0	2.5	5

Notes: (1) Local Road maintenance is N1 as while it supports road-based transport, by being maintenance focused it is unlikely to increase the emissions-intensity of the transport sector. Example policies taken from the November 2020 Comprehensive Spending Review.

Source: Vivid Economics

The outputs of the Budget Tagging Tool include the value of the positive and negative environmental decisions and a score for each environmental dimension. The tool aggregates the assessment of individual policies according to their financial value, to calculate the total value of decisions which are environmentally positive or environmentally negative across each dimension. For the mitigation dimension, the assessment compares the value of mitigation-positive spending decisions with external estimates of the public investment required for the UK to reach Net Zero. The Budget Tagging Tool also provides a score for each environmental dimension which ranges from +100 to -100 (where a score of +100 would indicate that all commitments made in the fiscal event support strong positive progress towards environmental outcomes), allowing for comparison over time or across dimensions. The tool also spotlights the key positive and negative decisions, based on the value of the policies.

BOX 1 – LIMITATIONS OF THE BUDGET TAGGING TOOL

The Budget Tagging Tool faces the following limitations:

- **Subjective scoring** – the qualitative scoring means that the tool relies on subjective assessment and assumptions, although the scoring is determined by a clear rubric to ensure transparency and replicability.
- **Determined by financial flows** – individual policies are weighted in the output metrics according to the financial value of the spending or taxation decision. This is useful in assessing the consistency of governmental spending and taxation decisions with stated environmental objectives. However, the impact of a decision on environmental outcomes will not be perfectly correlated with the value of a decision.

- **Alignment with policy targets** – the tool compares the value of mitigation positive or negative decisions to external assessments, but cannot determine whether fiscal policy is being sufficiently ambitious. This is for two reasons. (1) It is a political decision over how the financial burden of achieving Net Zero should be distributed across government, business and households. The Climate Change Committee have estimated the total investment need and the Office for Budgetary Responsibility have assumed that one-quarter of this investment will be public.⁶ However, the government has not committed to this. (2) The absolute value of spending and taxation decisions may be a poor indicator of the impact on achieving Net Zero – it is important that fiscal policy is well-targeted to achieve impact.

EMISSIONS ESTIMATE TOOL

The Emissions Estimate Tool provides a quantitative estimate of the total impact of a fiscal event on greenhouse gas emissions. At present, departments are required to assess the impact on emissions in two circumstances: (1) in Comprehensive Spending Review departmental bids, where they are required to assess the emissions impact of capital expenditure programmes; or (2) as part of Green Book value-for-money appraisals, where a policy is assessed to have a direct or indirect impact on emissions. The Emissions Estimate Tool supplements these existing arrangements by providing an emissions assessment of all policies and aggregating them in order to provide an overall perspective of the impact of fiscal events on emissions.

The Emissions Estimate Tool estimates the emissions impact of all policy decisions announced in fiscal events through a two-step process. FIGURE 2 summarises the conceptual approach, which is designed to be replicable and transparent. In the first step, the Tool estimates the economic impact of the policy based on economic multipliers established in the literature. These multipliers vary by policy type, with five policy archetypes: (examples given after hyphen)

- **Transfers to and from households** – social security policies and income taxes
- **Transfers to and from businesses** – corporation taxes
- **Public services** – education or investment in public capacity
- **Public programmes** – programmes to support private sector activity
- **Indirect taxes** – taxes which change the prices of goods, such as fuel duty

In the second step, sector-specific or economy-wide emissions factors translate the economic impact into an estimate of the impact on emissions.

FIGURE 2 CONCEPTUAL FRAMEWORK TO ESTIMATE INDICATIVE EMISSIONS IMPACT



Note: Policy decisions include new tax/spending decisions or changes to existing tax/spending decisions

Source: Vivid Economics

⁶ OBR (2021) Fiscal Risks Report. Available from: <https://obr.uk/frr/fiscal-risks-report-july-2021/>

The two-stage approach applied above is only appropriate where the policy does not change the emissions intensity of the relevant sector or economy. Where the policy is expected to increase or decrease the emissions intensity, bespoke modelling is required. In these cases, emissions estimates conducted as part of Green Book assessments can be inputted into the tool to provide a robust estimate of emissions impacts.⁷

The estimated emissions impacts are summed together to assess the total impact of a fiscal event on emissions. The Tool disaggregates the impact over a five year time horizon and by Department responsible for the policy. The emissions impact of the fiscal event is compared in the Tool to the CCC's carbon budget for its Balanced Pathway to Net Zero. The Tool also spotlights the policies which are the biggest contributors to emissions increases, or the policies which most support abatement.

BOX 2 – LIMITATIONS OF THE EMISSIONS ESTIMATE TOOL

The Emissions Estimate Tool faces the following limitations:

- **Policy interactions** – policies can be complementary, overlapping or countervailing in their climate impacts.⁸ The Tool assumes the emissions impacts are additive, which means these interactions are not accounted for. This is an area that could be addressed in future iterations of the Tool.
- **Integration of existing emissions estimates** – although the Tool has been designed so that emissions assessments conducted by departments as part of Green Book assessments or capital spending bids can be inputted, this information is not publicly available which has meant that the functionality could not be tested. The Treasury could provide feedback on this.
- **Technology-specific emissions factors** – at present, the Tool only includes sector-wide emissions factors, with all policies which change the emissions intensity of the sector requiring bespoke modelling. Over time, as the Tool is used over multiple fiscal events, this will create a database of environmentally relevant policies which can be used to develop a broader set of emissions factors.
- **Ambition** – the Tool provides an assessment of the aggregate impact of fiscal events on emissions and compares this to the CCC carbon budget. However, the Tool cannot assess whether fiscal policy is sufficiently ambitious. This is because meeting Net Zero will require other forms of government policy to direct private sector action, such as regulatory, monetary and macro-prudential policy, all of which should go through a Net Zero assessment, in line with the CCC's recommendation⁹. The Tool also only focuses on the impact of new policy decisions, rather than estimating the total impact of government spending and taxation.

⁷ The March 2021 Budget has three policies which required bespoke modelling; the super deduction to capital allowances, the UK emissions trading scheme and the freeze to carbon [rice support. More information on these approaches is provided in the technical annex.

⁸ World Bank (2021) Carbon Pricing Assessment and Decision-Making. Available: <https://openknowledge.worldbank.org/handle/10986/35387>

⁹ CCC (2021). Joint Recommendations to Parliament. Available: <https://www.theccc.org.uk/wp-content/uploads/2021/06/CCC-Joint-Recommendations-2021-Report-to-Parliament.pdf>

4. APPLICATION OF NET ZERO TEST TO THE MARCH 2021 BUDGET

The NZT was piloted on the March 2021 Budget to demonstrate its ability to help assess the alignment of all new spending and taxation decisions with the Net Zero target.¹⁰ The application of the tool to new policy announcements in the March 2021 Budget reveals the following:¹¹

- **The Budget had an immediate focus on economic stimulus and recovery, with a longer-term ambition of repairing public finances.** The majority of the policies are assessed as having a neutral impact on the economy and there were relatively few new policies announced that were designed to mitigate the impacts of climate change.
- **There were missed opportunities for introducing green conditionality and shifting the economy in a new direction.** The analysis shows that the announced impact of stimulus spending will increase emissions in the short term, instead of 'building back better' and shifting the economy to a new, sustainable pathway.
- **The March 2021 Budget was not well aligned with the Net Zero target.** The NZT reveals a significant disparity between the announcements made in the March 2021 Budget and what the CCC has outlined as necessary in terms of both emissions reduction and investment. This was due to a lack of environmentally positive spending, coupled with major policy decisions which had negative impacts, notably the super capital deduction on capital allowances.

The results from the NZT are outlined in the sections below.

ECONOMIC STIMULUS, RECOVERY AND REPAIRING PUBLIC FINANCES

The March 2021 Budget had an immediate focus on economic stimulus and recovery, with a longer-term ambition of repairing public finances. The Budget focused on responding to the COVID-19 pandemic in the short-term, with policies announced to support businesses, individuals and public services across the country, with measures announced including the extension of the Coronavirus Job Retention Scheme. The Budget also provided an economic recovery plan through policies to support investment and growth, such as the super deduction on capital allowances, which means that companies can claim 130% capital allowances on qualifying plant and machinery investments until March 2023. In the medium-term, the Budget also had the ambition of repairing public finances through measures such as increasing corporation tax.

Given that these macroeconomic policies do not change the emissions intensity, they are scored as having a neutral impact in the Budget Tagging Tool component of the NZT. TABLE 1 summarises the fiscal scoring in the Budget. Of the 53 decisions announced in the Budget, with a total absolute value of £170bn, 43 policies, with an absolute value of £130bn, are neutral with regard to mitigation. Only one decision is scored as having a positive impact, the UK emissions trading scheme, and nine decisions are scored as having negative impacts totalling £41 billion.

¹⁰ The pilot has focused on applying the NZT to the 2021 Budget and hence focuses on taxation and spending policies. WWF plans to apply the NZT to the 2021 CSR release, which will likely have a different mix of policies, including more large-scale infrastructure projects.

¹¹ Although the Budget document contains a large set of described policies, many of these have been previously announced, so the tool only captures new policy decisions and their associated value.

TABLE 1 BUDGET 2021 BUDGET TAGGING RESULTS – MITIGATION DECISIONS

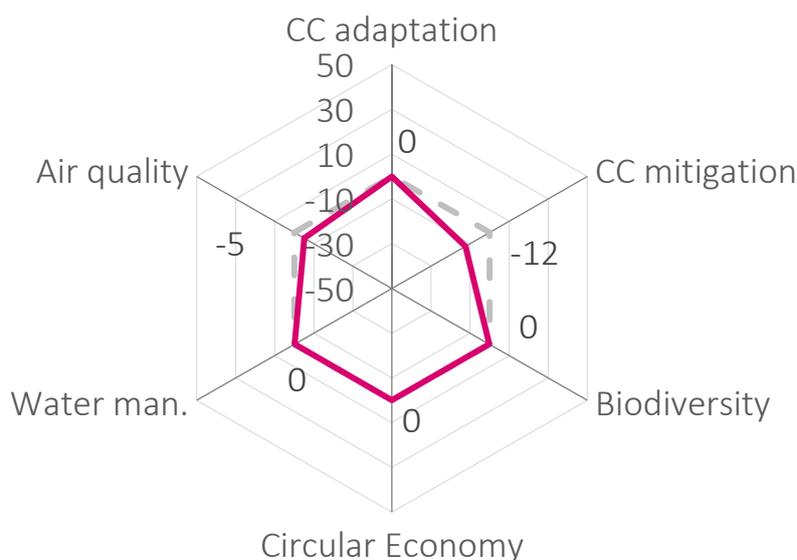
Mitigation Score	# Decisions	Absolute value	Example policy decision
P2	1	£115m	Announcement of the UK Emissions Trading Scheme, £115m.
P1	0	£0m	n/a
Z	43	£130bn	Increase corporation tax, £48bn.
N1	4	£36bn	Super deduction for capital allowances, £34bn.
N2	5	£5bn	Freeze in fuel duty, £4.4bn.

Source: Vivid Economics

MISSED OPPORTUNITIES FOR GREENING THE ECONOMY

The minimal green commitments in the March 2021 Budget are strongly outweighed by the policy announcements which negatively impact environmental outcomes. As TABLE 1 shows, the March 2021 Budget had a single policy scored as positive for mitigation (absolute value of £115m, 0.01% of 2020 GDP), but nine policies scored as negative (absolute value of £41bn, 2.1% of 2020 GDP). The single policy commitment assessed as mitigation-positive is the commitment to the UK Emissions Trading Scheme. Policies assessed as mitigation-negative include a one-year freeze in fuel duty, the super deduction for capital allowances (introduced without green conditionality) and the decision to freeze the carbon price support rather than increasing it as planned.¹² Other than air quality, where policies encouraging greater use of road transport also meant the Budget scored poorly, the Budget was neutral with regard to other environmental dimensions. This is reflected in FIGURE 3 which shows the index scores for all six environmental dimensions, with mitigation attaining a score of -12.

FIGURE 3 BUDGET 2021 BUDGET TAGGING RESULTS – INDEX SCORE



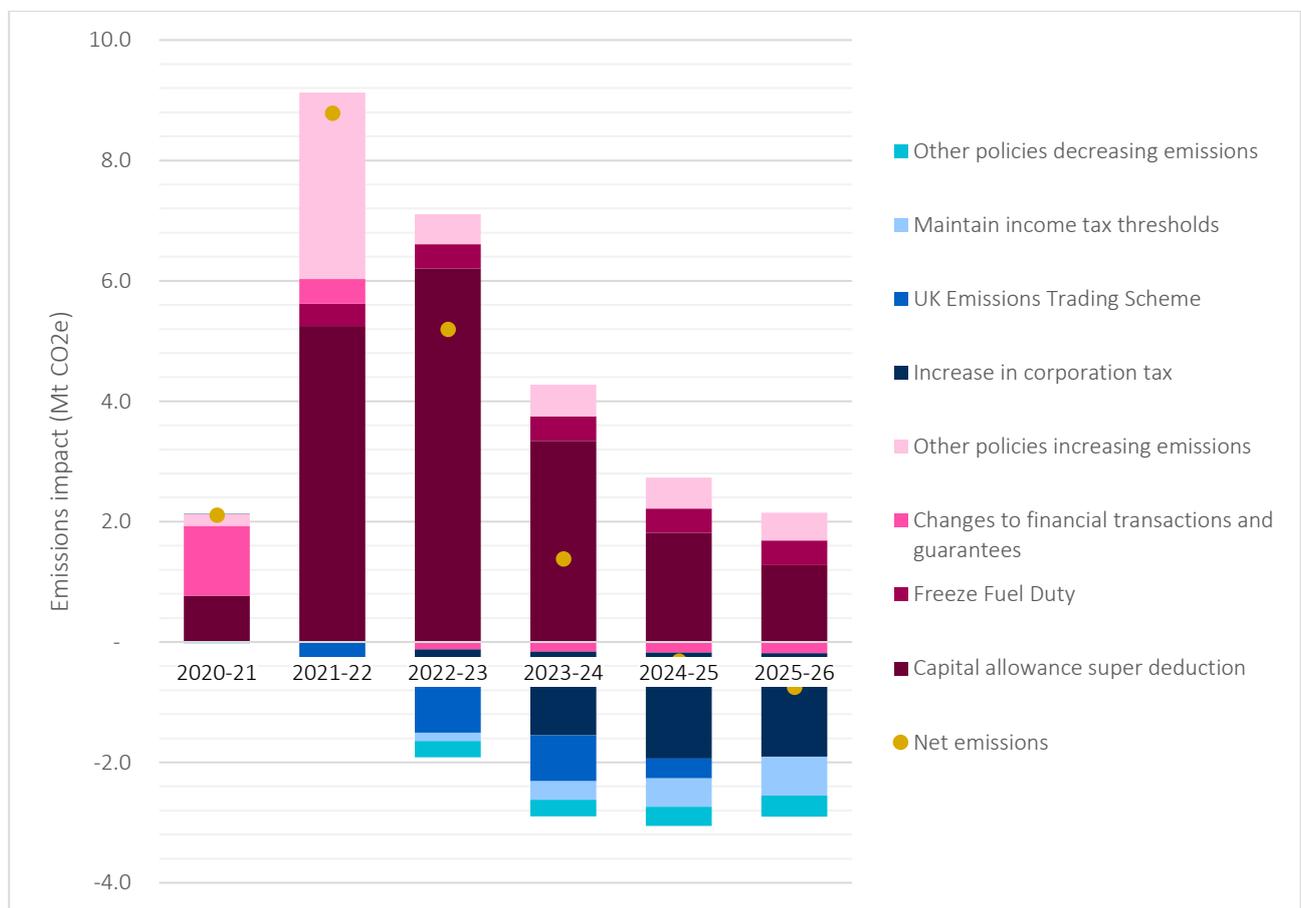
Source: Vivid Economics

¹² The Carbon Price Support was introduced to underpin the price of carbon at a level that drives low carbon investment. The Carbon Price Floor, a combination of the Emissions Trading Scheme allowance price and the Carbon Price Support, was due to rise every year until 2020 to a price of £30/tCO₂. The Carbon Price Floor was frozen at £18/tCO₂ between 2016 and 2020, the March 2021 announced a further freeze to 2022-23.

The Emissions Estimate Tool confirms the indication from the Budget Tagging Tool that the March 2021 Budget is expected to increase UK emissions in the short-term.

As the ‘net emissions’ data point in FIGURE 4 shows, the March 2021 Budget is initially expected to increase UK emissions. This is driven by the economic stimulus and recovery policies, notably the capital allowance super deduction, which stimulate the economy without directing it towards a sustainable pathway. The analysis shows that the single most sizeable policy was the super deduction on capital allowances. If green conditionality had been a key component of this, such that the policy encouraged green investment, the overall picture of emissions could have been very different. In addition to stimulus policies, environmentally harmful policies such as the decision to freeze the Carbon Price Support and fuel duty also increase emissions. From the 2024-25 fiscal year, the announcements made in the Budget are expected to lower emissions. This is partially driven by the UK emissions trading scheme, but also the tax increases that have been introduced to repair public finance – these are expected to have a slowing effect on the economy and hence emissions.

FIGURE 4 BUDGET 2021 EMISSIONS ESTIMATE RESULTS - POLICY SPOTLIGHT

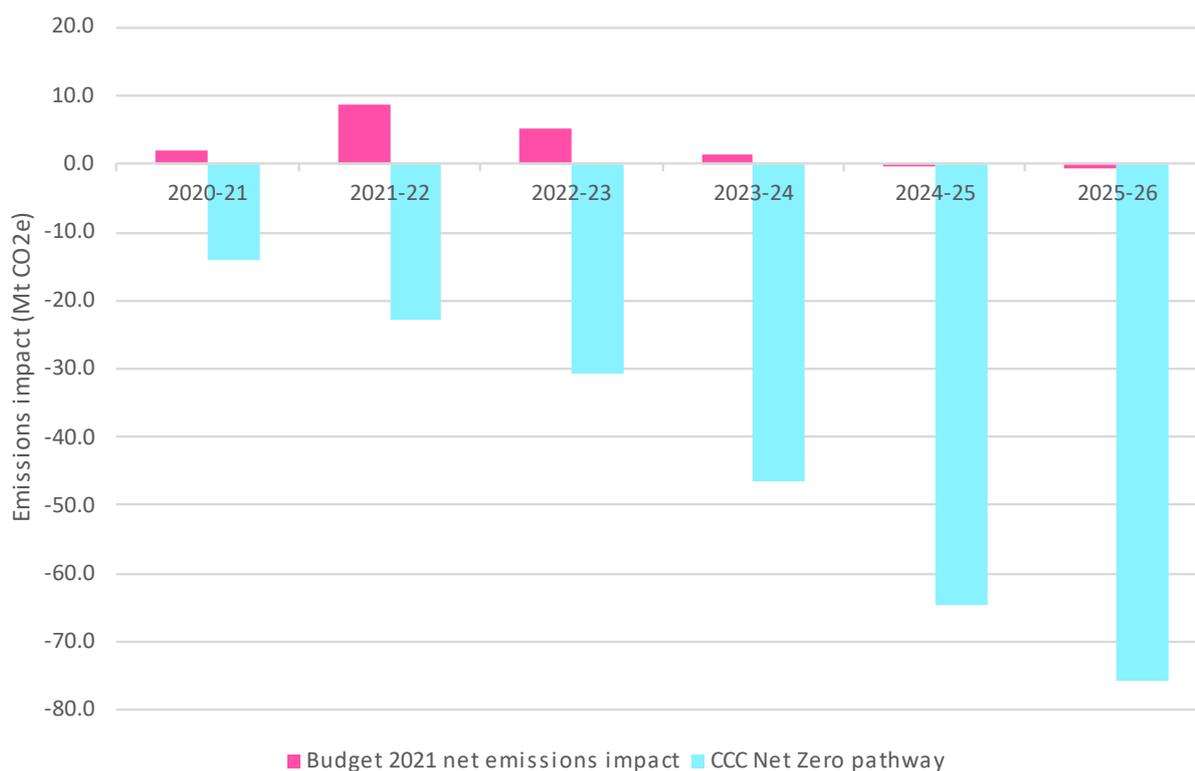


Source: Vivid Economics

INSUFFICIENT AMBITION FOR DELIVERING NET ZERO

The results of the NZT suggest the March 2021 Budget is not aligned with the government’s legally binding Net Zero commitment. The March 2021 announced mitigation-positive policy decisions worth £115 million, the UK Emissions Trading Scheme. The CCC have estimated that between 2020 and 2026 an additional £145bn of capital expenditure is required to deliver the Balanced Net Zero Pathway, The OBR estimates that 25% of this investment is from the public sector, with most of the investment necessary to achieve Net Zero coming from the private sector. The absolute value of the mitigation-positive decisions announced in the 2021 Budget being equivalent to just 0.28% of this. Although the primary impact of the Emissions Trading Scheme is to drive low carbon private sector investment, this provides an initial indication that greater ambition is needed. Similarly, the Emissions Estimate Tool estimates that the Budget will increase net emissions by 16.4 Mt CO₂e over the six-year period, this is equivalent to 5.0% of 2020 UK emissions. FIGURE 5 summarises the impact on emissions from the Budget, compared with the emissions reductions required by the CCC Net Zero Pathway. This suggests that the policy commitments outlined in the March 2021 Budget are insufficient to deliver the low-carbon transition the UK needs to meet its Net Zero commitment.

FIGURE 5 EMISSION IMPACT OF THE MARCH 2021 BUDGET RELATIVE TO CCC PATHWAY



Source: Vivid Economics

5. CONCLUSION AND RECOMMENDATIONS

The NZT has been designed to support the UK government in mainstreaming its Net Zero commitment into fiscal policy. In June 2021, the UK joined the OECD Paris Collaborative on Green Budgeting, signalling their commitment to comprehensively incorporate climate and environmental considerations into fiscal policymaking. This builds on existing efforts to monitor the impact of government policy on emissions – including the CCC’s national level scrutiny of progress in achieving carbon budgets, the requirement for departments to submit assessments of the climate impacts of their capital expenditure and the valuation of greenhouse gas emissions as part of Green Book appraisals. The NZT seeks to supplement and strengthen these existing practices through its two components. Firstly, the Budget Tagging Tool provides a qualitative assessment of the consistency of financial flows announced in Budgets or Comprehensive Spending Reviews with environmental objectives. Secondly, the Emissions Estimate Tool estimates the impact of individual policy decisions outlined in Budgets and Spending Reviews on emissions to estimate the aggregate impact of fiscal events on progress towards Net Zero.

The application of the NZT to the March 2021 Budget has highlighted clear opportunities to better align fiscal policy with the Net Zero ambition. The analysis showed that the Budget had a significant focus on economic stimulus, recovery and repairing public finances, with only one policy – the UK Emissions Trading Scheme – announced with a clear environmental objective. However, the budget tagging also showed that funds were committed to policies with a harmful environmental impact and that there were opportunities missed to introduce green conditionality into announced stimulus spending, such as with the super deduction on capital allowances. The super deduction on capital allowances decision was the largest driver of increased emissions; this could have been averted by including green conditionality. The Emissions Estimate Tool results show that the Budget is expected to increase emissions in the short term, with limited progress in shifting the economy to a new and sustainable pathway. Overall, the NZT highlights the need for more ambitious policy to drive progress towards Net Zero.

The sections below outline recommendations for three sets of actors: HM Treasury, government departments and independent actors.

HM Treasury has a unique and critical oversight role in fiscal policy. It has a mandate for ensuring the allocation of fiscal resources delivers on government strategic priorities, which it should be leveraging to ensure that fiscal policy delivers on the UK’s Net Zero commitment. Recommendations include:

- **The Treasury should adopt the NZT to support fiscal policy development.** By using the NZT during fiscal policy development, policies which have a negative environmental impact can be flagged early, facilitating discussions with departments about whether the policy is in line with government strategic objectives, whether the policy could be altered to reduce the impact on emissions, or if there might be scope for ambitious policy elsewhere to counteract these impacts. The Treasury can also use the NZT to assess whether the allocation of fiscal resources reflects the strategic importance of Net Zero delivery. BOX 1 suggests how the Treasury could take the NZT forward.

- **The Treasury should continue to work with BEIS and departments to build capacity for estimating emissions impacts.** Bespoke emissions assessments such as those undertaken as part of Green Book value-for-money appraisals provide the most robust approach for estimating emissions associated with individual policies. However, departmental adherence to the Green Book is inconsistent due to varying capabilities across departments.¹³ The Treasury should continue to engage with BEIS to develop cross-departmental capacity for estimating emissions, including through the development of robust and easy-to-use guidance, and encourage greater consistency across departments.
- **The Treasury should increase transparency around the impact of fiscal policy on achievement of Net Zero.** The Treasury should look to publish the analysis of the potential impacts of fiscal policies on emissions and the alignment of fiscal policy with the Net Zero target and set out how it has taken the results of these analyses into account in the spending/tax decisions made in the CSR or Budget. It should also increase transparency around the guidance it provides to departments to facilitate public scrutiny – for example guidance around how departments should calculate the emissions associated with capital expenditure in their comprehensive spending review bids.

Government departments also have a role to play in ensuring policy delivers on the UK’s climate commitments. The application of the NZT to the March 2021 Budget demonstrates that policies which do not support the low-carbon transition further push the economy down a high-carbon trajectory. Departments should mainstream Net Zero into their policymaking and monitor the impact of their policies on UK emissions.

Independent actors, such as civil society and the CCC, should maintain their role in holding government and Treasury to account for government action in delivering Net Zero. A body such as the Office for Budgetary Responsibility could play a critical institutional role in scrutinising the impact of public policy and hold the government to account for Net Zero delivery.

This report summarises the first iteration of the NZT which will continue to be developed and refined over future uses. This tool provides a useful starting point to understand the impact of fiscal events on environmental outcomes and emissions. As the tool is applied over time, methodologies for scoring policies and estimating emissions can be further refined, creating a living handbook on best practice for assessing the alignment of fiscal policy with environmental objectives.

¹³ National Audit Office (2020) Achieving Net Zero. Available: <https://www.nao.org.uk/wp-content/uploads/2020/12/Achieving-net-zero.pdf>

BOX 1 - NEXT STEPS FOR IMPLEMENTING THE NET ZERO TEST

To implement the NZT, the Treasury should consider the following:

- **Demonstrating commitment to mainstreaming Net Zero into fiscal policy development.** Green budgeting requires political commitment, strong leadership and clarity of roles and responsibilities. By committing to the NZT, the Treasury mainstreams Net Zero into budgetary processes, encouraging a whole-of-government approach to delivery. At each budget or spending review, budget tagging should be used to undertake a systematic analysis of the alignment of all spending and taxation policies with a range of climate and other environmental objectives. The Treasury should also undertake quantitative analysis to estimate the greenhouse gas emissions associated with all spending and taxation decisions. In the short term, the Treasury could commit to undertaking a climate and environmental budget tagging exercise on the 2021 CSR, and then committing to apply a full Net Zero Test, involving both budget tagging and emissions estimates, to all future fiscal events.
- **Supporting Departments to adopt the NZT in their own processes for budget preparation.** The Treasury can support capacity-building among Departments to use the NZT in departmental budgetary processes. This would increase the alignment of departmental submissions with Treasury objectives.
- **Engaging closely with the OECD Paris Collaborative on Green Budgeting.** This will help to build capacity for integrating climate and environmental objectives into fiscal policy.
- **Iteratively improving inputs to the NZT.** The ability of the NZT to deliver robust results depends on the information on each budget line that is entered into it. In particular, the Treasury could:
 - Encourage a disaggregated expenditure breakdown of large projects, to isolate the spending which is ‘environmentally relevant’.
 - Align the NZT with existing approaches for estimating emissions. Ensure that emissions estimates from green book assessments or CSR submissions for capital expenditure can be integrated within the NZT. This may include compiling these emissions assessments centrally.
 - Support capacity-building among departments to assess emissions accurately and consistently, for example through strengthening guidance and developing clear templates.
- **Regularly refining the NZT methodologies.** Methodologies for assessing emissions should be regularly reviewed, for example by comparing *ex ante* estimates of emissions with *ex post* evaluations. The Treasury could also consider developing a broader set of policy archetypes for the NZT, including archetypes which are more relevant to CSRs, such as large-scale infrastructure projects.
- **Facilitating scrutiny of NZT results.** In adopting the NZT, the Treasury should ensure there are clear processes for review and validation, to ensure the robustness of the analysis. The OBR could have responsibility, guided by the CCC’s professional advice and

assessment on carbon budgets, for assessing government delivery against the net-zero test, reporting the results to Parliament

- **Utilising the NZT in decision-making.** Using the NZT for awareness-raising is likely to have limited impact on aligning fiscal policy with Net Zero. Instead, the Treasury should utilise the NZT across key stages in the budget cycle (planning, approval, implementation, and audit).
- **Publishing the results to facilitate public engagement.** The Treasury should also consider publishing the results of the NZT to support greater transparency, accountability and public engagement on how the government is using fiscal policy to delivery Net Zero and other environmental goals. As well as publishing the analysis, the Treasury should report on whether the overall emissions impact is compliant with a net zero trajectory, and a summary of how the analysis was used to inform the spending/taxation decisions made in the budget or spending review.
- **Extending the NZT to other environmental objectives.** Strong and healthy ecosystems help fight climate change as well as building resilience. The first step in extending the NZT to include other environmental objectives would require developing a clear set of nature-relevant metrics which could be assessed in the policy appraisal process.

WHAT CAN INDIVIDUALS DO TO HELP?

This year, we have a historic opportunity, with the UN Climate Summit coming to Glasgow. UK government – along with other world leaders – have promised to do everything they can to keep our climate as safe as possible, with the stated aim of limiting the rise in global temperatures to 1.5°C. Add your voice to WWF-UK's campaign below and write to your local MP, asking them to support a Net Zero Test to ensure that public money is spent on policies that protect nature, create jobs, and tackle dangerous climate change.

WE WON'T FORGET THIS PROMISE.

Together with our supporters, we will be holding governments and businesses to account, making sure they deliver on the promise of a greener, cleaner home for future generations.

You can join the campaign at [wwf.org.uk/climatepromises](https://www.wwf.org.uk/climatepromises)



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NET-ZERO TEST

Urgent action is needed to limit global warming to 1.5°C and the UK must play a leading role.



Of the 53 spending decisions announced in the 2021 Spring Budget, just two were positive for climate change, while eight were directly negative. To get us on track for net zero, the UK government needs to swing the dial to positive and deliver the green future we all want.

ⁱ <https://obr.uk/forecasts-in-depth/brief-guides-and-explainers/public-finances/>

ⁱⁱ <https://www.theccc.org.uk/wp-content/uploads/2021/06/CCC-Joint-Recommendations-2021-Report-to-Parliament.pdf>

ⁱⁱⁱ <https://publications.parliament.uk/pa/cm5801/cmselect/cmpubacc/935/93502.htm>

^{iv} https://www.wwf.org.uk/sites/default/files/2020-06/Keepingus_competitive.pdf

^v https://www.citb.co.uk/media/kkpkwc42/building_skills_net_zero_full_report.pdf

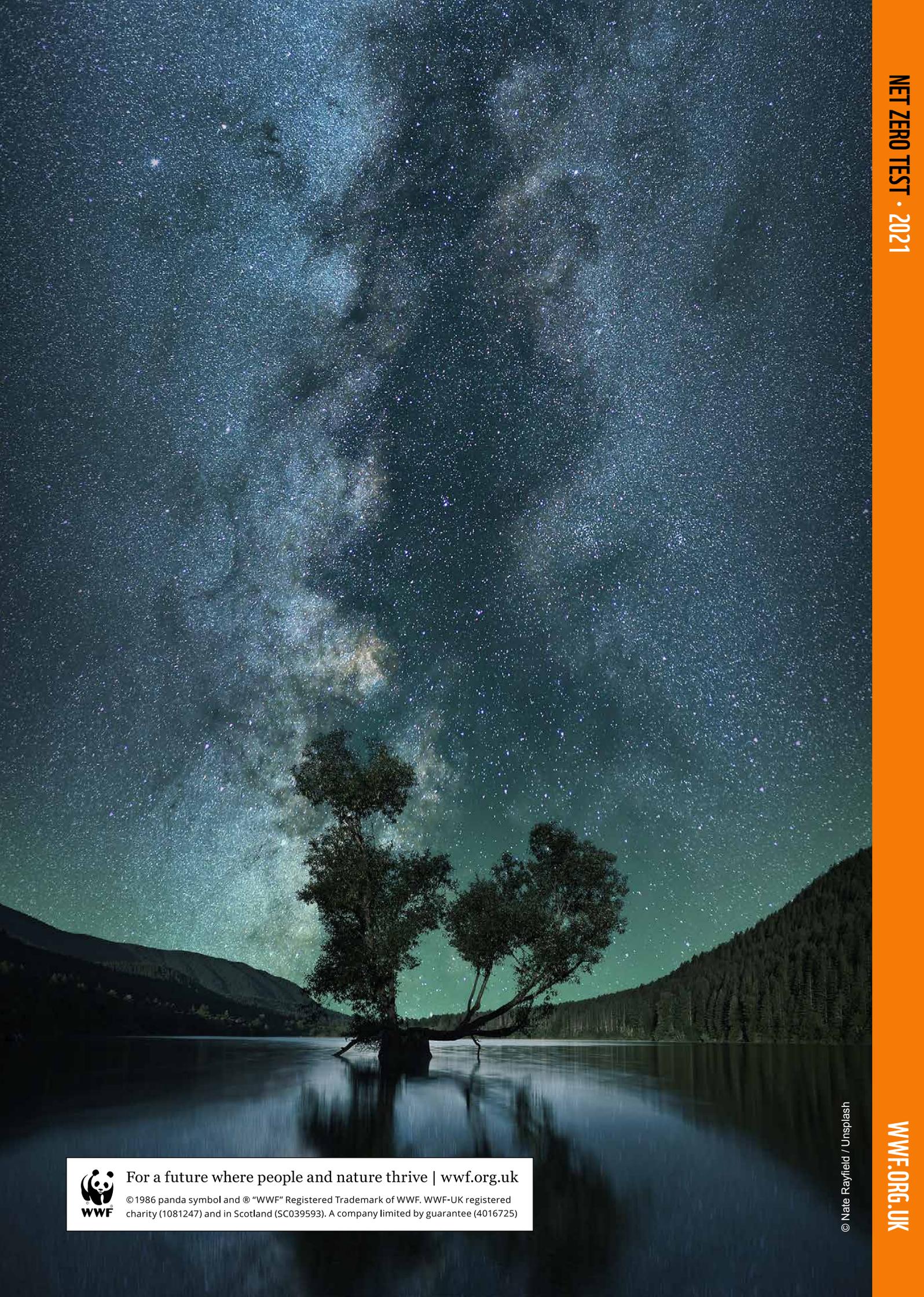
^{vi} <https://www.ippr.org/files/2020-07/transforming-the-economy-after-covid19-july2020.pdf>

^{vii} https://www.wwf.org.uk/sites/default/files/2020-06/Keepingus_competitive.pdf

^{viii} https://www.wwf.org.uk/sites/default/files/2020-06/Keepingus_competitive.pdf

^{ix} <https://www.bankofengland.co.uk/stress-testing/2021/key-elements-2021-biennial-exploratory-scenario-financial-risks-climate-change>

^x https://obr.uk/docs/dlm_uploads/Fiscal_risks_report_July_2021.pdf



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