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20 June 2025

Dear Edward,

NET ZERO ASSESSMENT PILOT and BUDGET 2025-26 CLIMATE CHANGE TAXONOMY METHODOLOGY

Following our discussion at Committee on 14 January I am writing to update you on the Scottish Government's Net Zero Assessment (NZA) Pilot Project and improvements to our methodology for our Climate Change Taxonomy for Budget 2025-26.

Net Zero Assessment

Further to the update I gave in my letter of 31 January, I enclose our *Report on the Scottish Government Net Zero Assessment Pilot Project* and a copy of the independent, external, expert review of the report. I am delighted that we have successfully piloted our NZA methodology across a range of new policies. The expert review concluded that the Pilot laid a strong foundation for integrating carbon assessment into policy-making. The review has made recommendations for refinements to achieve maximum efficiency and effectiveness and these are being considered as we move to roll out NZA across the Scottish Government in 2025. We will apply NZA to all significant new expenditure decisions by the Scottish Government and we will continue to explore how the NZA approach can be enhanced as well as the feasibility of applying the approach to the wider public sector.

Climate Change Taxonomy

The improved climate change taxonomy assessment we introduced for Budget 2024-25 provides a standardised approach to the classification of both resource and capital budget expenditure lines relative to their climate impact. We are committed to learning and continuing to improving how we do it and, as I set out in my letters of 31 July and 4 December 2024, in line with our commitment under the Joint Budget Review to pursue continuous and incremental improvement, as part of our review of its introduction we would

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implement a number of improvements for Budget 2025-26. In particular, with the process for the taxonomy now implemented, I highlighted there is greater ability to bring in a wider range of official insight into recurring budget lines to improve confidence in the assessment of those budget lines.

I enclose our *Scottish Budget 2025-26 Note on Climate Spend Taxonomy Methodology*. While the overall approach to the taxonomy is the same as last year, we have improved some methodological elements to increase rigour and robustness and the key change has been to increase the range of expertise undertaking the assessment so that we are now adapting a more panel-based approach to assessing budget categories.

At Committee on 14 January I indicated I wished to continue to improve transparency around the Scottish Budget and climate change. I hope these updates demonstrate that the Scottish Government continues to improve information on climate change and decision-making in response to the Joint Budget Review conducted with the Parliament in 2022. The documents will be published on the Scottish Government website.

Yours sincerely,

GILLIAN MARTIN

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Report on the Scottish Government Net Zero Assessment Pilot Project

2 April 2025

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1.   Executive summary

1. Protecting the planet by tackling the twin climate and nature crises is one of the First Minister's four top priorities for the Scottish Government.

2. A new Net Zero Assessment is a commitment of the Scottish Government in response to the 2022 Joint Budget Review (JBR) by the Scottish Government and the Scottish Parliament. The JBR aimed to improve the information available around the Scottish Budget and decision-making on climate change.

3. The Scottish Government is committed to maintaining Scotland's place at the forefront of international best practice for budget scrutiny on climate change. We are continuing to build on existing climate change assessment activity within government and the Net Zero Assessment aims to embed quantitative carbon assessment in the early stages of our policy development and spending decision-making.

4. Between March and October 2024, the Scottish Government successfully piloted its new Net Zero Assessment methodology across a range of new policies.

5. The Net Zero Assessment pilot involved a three-stage process:
    a. Stage 1: an initial screening discussion between the lead policy team and review panel.
    b. Stage 2: a light-touch assessment of emissions impact which identifies policies requiring full in-depth analysis.
    c. Stage 3: an in-depth full quantitative emissions assessment.

6. To ensure proportionality, policies which fell below a de minimis threshold were screened out at Stage 1 or Stage 2 and were not subject to full in-depth assessment.

7. The Net Zero Assessment methodology is compliant with HM Treasury Green Book appraisal principles, the well-established approach that underpins all economic analysis and appraisal within the Scottish Government.

8. The Scottish Government has had ongoing engagement on the pilot with the Climate Emergency Response Group (CERG) and has taken views from technical experts, most recently at a workshop hosted by CERG on 29 October 2024. The Scottish Government commissioned an independent, external, expert review of the pilot. The findings of the independent review are broadly consistent with this Report and its recommendations. The conclusion of the review was that the pilot has laid a strong foundation for integrating carbon assessment into policy-making, thereby enhancing the Scottish Government's efforts to achieve its net zero targets and addressing the climate emergency. The independent review made recommendations for refinements to achieve maximum efficiency and effectiveness.

9. Having completed the pilot, Net Zero Assessment will be rolled out in 2025 across all Scottish Government significant new expenditure decisions. As a first

step in this rollout, guidance to officials was developed in October 2024 and the text is at **Annex E**.

2. Joint Budget Review (JBR)

10. A new Net Zero Assessment is a commitment of the SG in response to the 2022 [Joint Budget Review (JBR)](#) by the SG and the Scottish Parliament. The JBR aimed to improve the information available around the Scottish Budget and decision-making on climate change.

11. A summary of existing climate change assessment activity within government is at **Annex A.** The SG has published statutory carbon assessments of the annual Scottish Budget since 2010-11, under section 94 of the Climate Change (Scotland) Act 2009. The [Carbon Assessment of the 2025-26 Budget](#) was published in December 2024.

12. [Research by the Fraser of Allander Institute](#) (FAI), part of the University of Strathclyde, commissioned by ClimateXChange on behalf of the SG for the JBR, set out the limitations of high-level taxonomy approaches, and highlighted the potential benefits of individual policy-level carbon assessments which provide quantified emissions estimates during the early policy development stages. A summary of the FAI research and current evidence gaps is at **Annex B**.

13. The JBR recommended feasible and proportionate steps to deliver meaningful improvements to processes and transparency on information in the consideration of climate change, ensuring quality research evidence which meets set standards, in order to understand and reduce government spend that would 'lock in' future greenhouse gas emissions and align budgets and climate change plans.

14. The SG is delivering the commitments made following the JBR recommendations for a set of reforms through three phased and complementary strands of work, representing pragmatic and realistic steps:
    a. In Budgets 2023-24 to 2025-26, the SG published a dedicated climate change narrative alongside the Scottish Budget document, highlighting spending areas from multiple portfolios that all contribute towards the government's response to climate change.
    b. In Budget 2024-25 and 2025-26, the SG published an enhanced climate change [Taxonomy](#) to identify and categorise all spending lines across the Scottish Budget with regards to their climate impact. This taxonomy refresh has standardised how the SG classifies both resource and capital budget spending lines relative to their climate impact – a single approach across both resource and capital budgets allowing greater consistency and the ability to give a more complete picture. The revised approach also incorporates some assessment of the magnitude of impact. The approach classifies spend lines at the most detailed available budget level. The approach was further developed for Budget 2025-26.
    c. Between March and October 2024, the SG successfully piloted our new Net Zero Assessment methodology, as outlined below.

3.   Aims of Net Zero Assessment

15. The SG is developing a government-wide Net Zero Assessment (NZA) aimed at establishing a dedicated carbon assessment process during early policy development stages that will provide increased depth and detail on the climate impact of individual policies and their associated budget allocations.

16. The NZA was recommended by the JBR to provide an opportunity to screen decisions at an earlier stage than the existing scrutiny and allow better alignment of policy and shape ministerial decisions with reference to net zero. The Assessment will act as a filtering process to ensure that all spending with major emissions implications undergoes a quantitative carbon assessment.

17. The NZA aims to support decision-making by Ministers and public sector leaders by providing estimates of carbon emissions early in the policy development process, giving an insight into the expected emissions impact of key policies at early decision points, and provide an opportunity for early consideration of mitigation of negative impacts through potential changes to policy design, enhancing the opportunities for emissions-reduction effort.

18. The NZA will allow the collation of a consistent evidence base for the emissions impact of Scottish policies. The NZA pilot had three key aims:
    a. **The resource requirement**. The first aim of the pilot was identifying the policy development and analytical resources required to scale-up the assessment across government, including where resource is best sourced from. Throughout the pilot the resource of both the central NZA Team and the various policy teams was recorded to provide an effective evidence base for the roll out.
    b. **The effectiveness and proportionality of the analytical process**. This included evaluating the information captured through the pilot and opportunities to improve the process with a view to identifying the resource implications and identifying ways to reduce the administrative burden while not compromising the quality of the analysis. The pilot involved a number of components that were being implemented for the first time. These included the scope of the assessment, the three-stage process, the threshold for de minimis exclusion, and guidance for the assessment. The pilot aimed to review these processes and provide an updated position for the full roll-out of the NZA.
    c. **The approach to reporting and governance**. The pilot aimed to assess the effectiveness of the central review panel which would ensure that all assessments were of sufficient quality and were appropriately applying the proportionality built into the process. The pilot also tested the methods of ensuring that the results of assessments, including where no significant emissions impact is identified, are effectively and consistently reported to senior leaders and Ministers.

4.   Methodology

Scope of the Pilot

19. The SG make many types of decisions which can impact emissions. These ranges from policy decisions, to investment or procurement decisions. The pilot was intended to cover a small subset of policies to test the approach and identify potential areas of improvement across the process.

Three-stage process

20. To ensure a level of proportionality over the assessment detail required for policies, the Scottish NZA is designed as a three-stage process:

   a. Stage 1: an initial screening **discussion** between the lead policy team and the review panel to identify if the policy is likely to have an emissions impact above the de minimis threshold.

   b. Stage 2: a light-touch **assessment** of emissions impact, which confirms if the policy is above or below the de minimis threshold, identifying policies requiring full in-depth analysis.

   c. Stage 3: an in-depth **full quantitative emissions assessment** is required of policies above the de minimis threshold.

21. The results of the NZA then inform advice to Ministers on the policy.

International approaches to net zero tests

22. In designing the methodology for the NZA pilot, the SG reviewed a variety of similar assessment approaches from other countries which are summarised at **Annex D**.

De minimis screening threshold

23. The pilot initially operated a de minimis screening threshold for the emissions impact of policies set at 1% of the national target level in any given year (e.g. 0.4 MtCO2e in 2020 as 1% of the national 40 MtCO2e target). However, in practice almost no policy met this threshold and so this was moved to a lower threshold of 0.1 MtCO2e in any one year or a cumulative 1 MtCO2e impact over a 10-year period.

Full quantitative assessment: HM Treasury Green Book appraisal framework

24. Each policy that exceeds the de minimis thresholds identified required detailed quantitative assessment following the emissions guidance detailed as part of the UK Treasury's Green Book economic assessment guidance and supplementary guidance.

25. This assessment approach is the same as underpins all government economic analysis and the well-established standard approaches for appraisal within the SG and across the public sector in the UK.

26. The HM Treasury Green Book approach is based on the following basic steps:
    a. Establish the business as usual counterfactual;
    b. Establish the change in energy or fuel use, or alternatively the change in land use or emitting activities, as a consequence of the proposed policy or expenditure; and
    c. Calculate the greenhouse gas impact associated with the change in energy or fuel use, or alternatively the change in land use or emitting activities.

27. The NZA approach does not require the calculation of monetary carbon values as detailed in the Green Book as this would be an unnecessary step once the emissions quantum has been established.

28. This analytical approach is similar in form to that of New Zealand's Climate Implications of Policy Assessment (CIPA). Other analytical standards were considered, such as PAS 2080, however, these other standards are often for specific purposes such as for businesses or construction or project assessment and are not necessarily aligned to Government assessment or national-level accounting of emissions. Where required, the Green Book approach can incorporate the same principals of life cycle analysis for individual policies as these alternative approaches.

29. While the Green Book defines the approach to appraisal the specific requirements of the Net Zero Assessment have been determined to align with the wider context of climate analysis within government. This includes specifying how embedded and generated carbon is treated, and the time range to be considered. To supplement the Green Book, specific guidance has been designed for the NZA that explains these details for both analysts and policy officials.

Proportionate approach

30. The NZA methodology is designed as a lighter-touch assessment, focussed on a single key measure – emissions reduction – that has a statutory importance.

31. In defining the analytical process one key consideration was to ensure that only policies which have some significant bearing on net zero were required to undertake an analytical process. This proportionality was embedded into the wider process of the assessment with an emphasis on triaging out non-relevant policies and business cases quickly while also ensuring sufficient scrutiny and resolving uncertain cases.

Alignment with other SG impact assessments

32. To avoid duplication of effort and ensure effective integration with existing structures, the NZA methodology aims to align and be compatible with existing SG impact assessments, such as statutory Strategic Environmental Assessment

(SEA) and Business Regulatory Impact Assessment (BRIA). This ensures alignment with processes, analytical approaches and governance processes within the SG and Scottish public sector. Differing standards between processes would require additional work to ensure consistency of approach.

33. In particular, SEA is an established statutory process that assesses the likely significant effects of a plan, programme, or strategy on the environment, including the climate, and considers how negative impacts can be avoided or minimised and, where appropriate, identifies opportunities for positive effects to be enhanced. Given the broad similarity in aims, collaborative work is being taken forward with the SG SEA Team to ensure NZA is not duplicating effort and that the NZA is adding value and improving efficiency and understanding of climate impacts of decisions.

34. Furthermore, the NZA methodology can be integrated into other existing impact assessments (usually SEA or BRIA).

5.   Governance

35. The Governance of the pilot was designed to ensure that policies undergo a NZA in the early stages of development. The initial discussions and assessment are carried out during early policy design and planning stage, before any policy decisions are made, in order to play a role in guiding which policy options are developed and presented to Ministers.

36. The NZA pilot aimed to inform key policy development documents, to both senior decision-makers and Ministers. This was to capture the impact of policy proposals in relation the challenging legislative national emissions targets and the Climate Change Plan pathway, ensuring that no policy causes undue increases in emissions.

37. Through the pilot, it was proposed that emissions estimates should accompany relevant submissions on key decisions. To trial the implementation of the NZA a modification of the Ministerial submission template was designed to ensure that all submissions would have to note the policy's NZA status and results.

38. The overarching approach in other countries is for policy teams to lead their assessments with a central team reviewing the outputs – this "mainstreaming" approach is a similar process settled on for the Scottish NZA pilot. The assessments were the responsibility of lead policy teams, who needed to commission their own analytical work. Assessments were reviewed by a review panel which provided guidance and support.

39. Where possible the assessment stages drew on existing impact assessments to avoid duplication of work. Assessments were able to be carried over between the different processes depending on which was done first. Where there were differing standards between processes then some additional work was required to ensure consistency of approach within each assessment.

40. The governance process aimed to ensure that the analysis undertaken was of a sufficient standard. Any results that were included in the pilot were first validated by a central analytical function designed to ensure assessment standards were met.

41. The resource requirements of the approach, both for policy teams and for the central coordinating and reviewing team, were assessed as part of the pilot.

6.   Policy areas considered by the pilot

42. The NZA should be carried out during early policy design and planning stage. To test this principle, the pilot sought new and developing policies which had yet to have their funding agreed. The aim of this was to allow the full NZA process – from initial assessment through to submission of the policy proposal to Ministers – to be tested. An initial selection of 30 policies nominated from across SG Portfolios in spring 2024 was considered for the pilot.

43. The focus of the pilot was on individual policies. Some policies which were initially volunteered for consideration for the pilot were subsequently identified as actually being programmes (i.e. groups of policies rather than individual policies), or business cases, or sometimes programmes or policies being operated by local authorities rather than central government – these were ruled out of scope for the pilot.

44. Another key challenge identified in the pilot was that a significant number of policies initially volunteered had already had their funding approved and were not, therefore, at a very early stage where they could test all the steps of the pilot process.

45. The remaining policies which were taken forward were then subject to the three-stage pilot process. However, in the event, few of the policies taken forward to the three-stage process exceeded the de minimis threshold on emissions impact (0.1 $MtCO_2e$ in any one year or a cumulative 1 $MtCO_2e$ impact over 10 years) and only one policy from the original sample required the full in-depth Stage 3 assessment.

46. To ensure a sufficiently large sample to rigorously test the approach, there followed a search for more substantial areas of policy to include in the pilot which resulted in the pilot significantly expanded its scope by considering over 170 commitments from Programme for Government 2024-25, published in September 2024.

47. Consideration was also given to the Infrastructure and Investment Plan Pipeline Reset as a potential candidate for the pilot given the importance of the capital programme to climate change delivery. However, the Pipeline is comprised of business cases so fell outside the scope of the pilot which was focussed on policies. We will continue to consider how best to increase the scope of NZA as the rollout across government proceeds.

48. The number of policies considered by the pilot is set out in the table below:

	Policies Considered	Included in Pilot / Stage 1	Stage 2 or 3 Assessment	Stage 3 Assessment
Original scope	30	7	4	1
+ PfG policies and loosen inclusion criteria	172	147	7	3

*Stage 3 Assessments included policies from: Heat in Buildings Policy (included in both original scope and PfG sample), and Regulation; and Carbon Capture Utilisation and Industrial Decarbonisation.

49. An overview of the areas of policy considered by the pilot is at **ANNEX C**.

7. Resourcing

50. During the pilot, the key roles identified as required to deliver the NZA process were policy development skills and analytical support, along with a requirement for guidance, oversight and co-ordination.

51. The overarching approach in other countries is for policy teams to lead their assessments with a central team reviewing the outputs – this "mainstreaming" approach is a similar process settled on for the Scottish NZA pilot.

52. There are, however, a range of delivery arrangements that can be considered, from the mainstreamed approach through to a fully centralised approach delivered by a specialist team, or a mixture of these two approaches. Other impact assessments across the SG are managed on a mainstreamed approach, or sometimes a mixed approach model with more technical expertise provided by a central team.

53. The pilot has identified a number of potential options to deliver the best possible assessment within different resource scenarios, and the SG is considering which option to use for the rollout. A combination of approaches could be applied depending on how the output from the assessment is to be used:
    a. Self assessment – By developing a set of guidance and tools policy teams can engage in their own NZA and determine what stage of assessment they require.
    b. Self referral – Policy teams review their own policy and refer themselves to a central team where they believe there is a potential for emissions impact for additional guidance.
    c. Central engagement – A central team engages with policy teams to help guide them through the process and provide additional input into the analysis.
    d. Central oversight – A central team keeps an active oversight on all policies in development and uses active engagement to incentivise completion of NZA to adequate standards for reporting.

54. As part of the development of these scenarios there will be a requirement to develop new material and seek buy-in for the proposed processes.

8.   Outcomes and recommendations

55. The pilot robustly and successfully tested the NZA three-stage methodology across a wide range of policies volunteered by portfolios or drawn from Programme for Government. The pilot clearly demonstrated how policies progress from initial consideration to Stage 1, Stage 2 and Stage 3 assessment. The pilot demonstrated that, where policies already have done emissions assessments, these can be readily used for the NZA without creating additional work. The NZA can often be delivered by drawing out existing information and presenting emissions impacts clearly. The pilot demonstrated that keeping the assessment proportionate and focused on emissions means it can be more flexibly used across a wider number of policies. Overall, the pilot proved the methodology is workable and credible and can be recommended for wider roll out across the SG.

56. In rolling out the NZA, key challenges identified by the pilot should be addressed.
   a. Experience from implementation of other SG impact assessments highlights that intensive resources are required for the roll out across government. This would include advertising the NZA in the SG intranet and promoting it across management and staff groups, the development of training materials and training courses, the hosting of workshops and policy surgeries, and 1:1 work supporting individual policy areas.
   b. The NZA needs to align with other SG impact assessments, on governance, processes and analysis.
   c. The need to engage on the NZA with lead policy teams early in the policy development process is a challenge, even for established impact assessments.

57. In light of experience with the pilot, we recommend that the de minimis threshold will be revised further downwards for the roll out of the NZA across the SG. This is because a high proportion of policies considered by the pilot did not reach the lower 0.1 MtCo2e de minimis threshold and were, therefore, evaluated as having no significant emissions impact. By decreasing the threshold, the number of policies that are included in the NZA will increase, but the volume of emissions impact captured may not significantly increase. With the lowering of the de minimis threshold the policy and analytical resource required will increase. However, these assessments would be required as part of later policy processes. There is therefore a trade-off between improving the credibility of the NZA process by improving the number of policies captured and increasing the requirement for early stage policy assessment.

58. In addition to adjusting the de minimis, consideration will also be given to the potential cumulative impact of multiple low-impact interventions.

59. During the pilot the analytical guidance focused on a proportionate approach of only considering generated emissions within Scotland and a minimum time horizon of 10 years. The 10-year minimum analysis period was chosen initially for the pilot given concerns around data availability and that many policies act in

perpetuity and so do not have a whole life period. Where possible, it is recommended that whole life analysis should be undertaken.

60. Following the review of policies within the pilot, many had minimal generated emissions but impacted Scotland's consumption of embedded emissions. We recommend that following the pilot the analytical guidance is expanded to require analysis of embedded emissions.

61. Informal consultation with CERG, representing stakeholders and experts from environmental NGOs, public and private sectors, highlighted the need to focus on policies with the highest emissions impact (typically the highest emitting sectors such as energy, heat, transport, industry, buildings and land use) where the NZA can be most meaningful and add most value.

62. Informal consultation with CERG also highlighted the expansion of the NZA to cover capital investment, procurement and business cases, the importance of whole life carbon and consumption-based approaches, the need for consistent analytical standards aligned with Scotland's 2045 net zero target, the scope to apply NZA to existing commitments, and to consider how climate adaptation and just transition can be incorporated in assessments of the Scottish Budget. While the approach to capital investment, procurement and business cases will be consistent with the piloted NZA approach, these areas deal with more defined and specific interventions and will require additional analytical guidance to ensure robust analysis.

63. The methodology can be iteratively improved as more data becomes available. Moving forward the methodology could be further developed to cover capital investment, business cases, and explore the feasibility of its application to procurement and budget spend decisions if greater detail of budget spend can be collected.

64. During the early stages of the roll out of the approach across the SG the aim will be to test how well the approach is being used, monitor the emissions data being provided to Ministers and assess how this is being used to identify policy options to reduce emissions.

65. The pilot identified the need to ensure that existing governance structures, that have a key role in managing the impact of policies on climate, actively engage with the outputs generated by the NZA.

9. Next steps

66. The Cabinet Secretary for Wellbeing Economy, Net Zero and Energy wrote to the Scottish Parliament's Net Zero, Energy and Transport Committee on 18 April 2024, saying that, in line with recommendations in the recent Audit Scotland report on our climate change governance, we will redouble our work to ensure that net zero is fully considered in our workforce, spending, policy development and structures.

67. In developing proposals for how the assessment is rolled out across the SG consideration will be given to how existing governance structures will have a comprehensive and formal advisory role. This will likely be based on the systematic examination of carbon emissions impacts taken forward through the pilot of the NZA. To ensure spending across the public sector reflects our net zero ambitions, as we expand the assessment, we will work with COSLA on how we can assess wider public sector spend against our shared net zero ambitions, through the Climate Delivery Framework.

Annex A- Existing climate change assessments by Scottish Government

The SG currently has a significant degree of net zero scrutiny for its policy decisions and business cases through its existing impact assessments. Both statutory Strategic Environmental Assessment (SEA) and Business Regulatory Impact Assessment (BRIA) are designed to capture the emissions and wider impacts of policies, while business cases have a number of constituent assessments including an environmental case.

Under section 94 of the Climate Change (Scotland) Act 2009, the SG has published statutory Carbon Assessments of the Budget since 2010-11. The Carbon Assessment of the 2025-26 Budget was published on 4 December 2024.

Under section 94A of the 2009 Act, a Carbon Assessment of the Infrastructure Investment Plan for Scotland 2021-22 to 2025-26 was published on 17 January 2024, drawing on a range of evidence, including results from a taxonomy assessment. The assessment aims to show how the plan is expected to contribute to the meeting of Scotland's emissions reduction targets.

In 2022, the SG published guidance on managing carbon emissions associated with Scottish City Region and Growth Deal projects – an approach that could be considered an emerging form of 'Net Zero Test', where the effect of a project, policy or programme on climate change mitigation can be assessed using a proportionate, consistent and tiered approach.

Under section 35(21) of the Climate Change (Scotland) Act 2009, future Climate Change Plans must set out estimates of the costs and benefits associated with the policies set out in the plan.

Annex B- The need to address current evidence gaps

[Research by the Fraser of Allander Institute](#) (FAI), part of the University of Strathclyde, commissioned by ClimateXChange on behalf of the SG for the JBR, set out the limited evidence on climate impacts that could be used to help inform spending decisions.

The research noted that delivering in-depth analysis is a common challenge for governments around the world. The research highlighted the challenge of scrutinising carbon emissions using planned spending lines, with the central issue being that spending lines do not generate emissions, instead the funded policies and their associated projects that generate the emissions, so attempting to equate planned spending lines with actual projects is fraught with difficulty. The research highlighted the inherent limitation of taxonomy-based approaches which categorise spending to carbon assessment at the point of budget setting and recommended a move towards the use of individual-level carbon assessments and gap analysis applied to individual policy outputs during their policy development stage to provide suitable data for fiscal and policy scrutiny.

The research recommended that the SG should improve the clarity and transparency of Government decisions that impact on climate change, acknowledging that trade-offs will always exist between different objectives. The research said that establishing the dedicated Budget narrative for climate, the new taxonomy approach for Budget, plus policy-level NZA, will deliver a comprehensive combination of qualitative and quantitative analysis on climate impact of spending levels. As noted by the research, the NZA will also serve a filtering function to ensure individual policy level carbon assessments are focussed on activities with major emissions implications, which will ensure a level of proportionality to what areas undergo such an assessment.

The NZA responds to a number of gaps within SG evidence requirements:
- Improving the availability of evidence, especially at earlier stages of policy development, will help Ministers be aware of the impact of policy options on achieving emissions targets, and help identify opportunities for emissions reduction measures.
- Current emissions assessments are typically later in the process and are not consistently undertaken across all policies in SG.
- SG policies requiring a SEA would already be expected to have an emissions estimate – the NZA may bring forward this assessment and require it to meet a set standard.

Annex C- Policy areas considered by the pilot

Following a series of workshops in April 2024 with policy teams from across the SG leading on potential policy areas to be included in the pilot, an initial 30 policies were considered, drawn from a range of portfolios, including: Health and Social Care; Education and Skills; Net Zero and Energy; Social Justice; Justice and Home Affairs.

Because only one policy from the original sample required the full in-depth Stage 3 assessment, the pilot was extended by considering over 170 policies from Programme for Government 2025-26 from across SG portfolios, which further extended the coverage to include the Transport and Rural Affairs, Land Reform and Islands portfolios.

Annex D- International approaches to net zero assessments

In designing the process for the NZA pilot, the SG reviewed a variety of similar NZA approaches from other countries, including New Zealand, Wales, Northern Ireland, and Sweden to identify features and analytical approaches. The SG drew on some key features of other countries' approaches while adapting them to fit the Scottish context.

The Scottish NZA process is similar in form to the New Zealand Climate Implications of Policy Assessment (CIPA), for example the Scottish process features proportionate screening and assessment at the early stage of policy development to provide opportunities for emissions reduction before policy design has become fixed. The scope of the Scottish NZA is wider as it covers all policy areas, not just climate and energy policies. The Scottish pilot had a different de minimis threshold and greater considerations to proportionality. The New Zealand CIPA is more embedded within their existing impact assessment processes, whereas the Scottish NZA is currently a stand-alone assessment.

Other governments' net zero tests reflect their own analytical standards, which show a degree of overlap in general methodological approaches. We have not identified improvements which could be made to Scotland's NZA by adopting the analytical standards of other governments net zero tests, and there would be the drawback of diverging from standards used across the SG.

Annex E- Scottish Government guidance on advice to Ministers

Protecting the planet by tackling the climate emergency is one of the First Minister's four top priorities for the Scottish Government. Internal guidance to Scottish Government officials preparing advice for Ministers was developed in October 2024, including the requirement that where policy proposals result in a material change in greenhouse gas emissions a Net Zero Assessment should have been conducted and the outputs from that assessment included in advice to Ministers. The guidance is set out in the text box below:

Guidance to officials preparing advice for Ministers 18 October 2024

Protecting the planet

You should consider the impact of the proposal in light of the Scottish Government's statutory climate change and nature and biodiversity commitments. This means the proposal should be assessed in terms of its impact on:
Greenhouse gas emissions.

- Consideration should be given to whether the proposal will act in a way best calculated to contribute to the delivery of Scotland's emissions reduction targets and result in a material change in greenhouse gas emissions, in which case a Net Zero Assessment should have been conducted and the outputs from that assessment included in the submission.
- Climate resilience to support adaptation to the irreversible impacts of climate change. Equally, the impact should also be considered in light of building climate resilience through the Scottish Government's goals on adaptation, as set out in the Scottish National Adaptation Plan.
- Just transition to net zero. In assessing the impacts on this priority it is also important to set out how the proposals support the principles of a just transition to net zero.
- Climate-related public engagement. You should set out whether the proposal has been developed in line with the approach set out in the Public Engagement Strategy for Climate Change, and consideration should be given to the public behaviour change implications and how these have these been addressed.
- Nature and biodiversity. The proposal should set out how it protects Scotland's natural environment and considers opportunities to restore biodiversity in line with the Scottish Biodiversity Strategy.

Annex F- Definitions

Business case - term used within the Scottish Government for the technical case made by officials to seek Ministerial approval for funding of government activities.

Business Regulatory Impact Assessment (BRIA) - assesses the costs, benefits and risks of any proposed primary or secondary legislation, voluntary regulation, codes of practice, policy changes or guidance that may have an impact on the public, private, third sector or regulators.

Capital spending - funding for investment to improve Scotland's infrastructure and public services.

Carbon Assessment of 2025-2026 Budget - this provides an estimate of the consumption-based carbon emissions associated with planned budget expenditure.

Climate change adaptation - pre-emptive action to protect communities from the consequences of climate change.

Climate change narrative - published as part of the Climate Change Taxonomy supporting document to the annual Scottish Budget, the narrative sets out how the Budget will impact the climate change priority, highlighting key spending that contributes towards the Scottish Government's response to climate change.

Climate Emergency Response Group (CERG) - collective of like-minded climate leaders spanning Scotland's private, public and third sectors, delivery organisations and membership bodies (Home • Climate Emergency Response Group).

COSLA - Convention of Scottish Local Authorities.

Embedded emissions - the greenhouse gas emissions generated during the production and transportation of goods.

Enhanced climate taxonomy - provides a carbon assessment identifying and categorising the emissions impacts of all relevant spending lines in the budget cycle.

Fraser of Allander Institute - the Fraser of Allander Institute (FAI) is an independent research unit and part of the Department of Economics at the University of Strathclyde. It specialises in researching the Scottish economy and the challenges and opportunities facing the UK.

Governance - the framework and decision-making process that supports delivery of desired outcomes, allocates resources and manages performance. For the Scottish Government, it helps make sure the organisation is achieving its objectives in the best way it can.

HM Treasury Green Book appraisal principles - the Green Book is guidance issued by HM Treasury on how to appraise policies, programmes and projects. It

also provides guidance on the design and use of monitoring and evaluation before, during and after implementation ([The Green Book (2022) - GOV.UK](#)).

Joint Budget Review (JBR) – 2022 review by the Scottish Government and Scottish Parliament to improve budget information on climate change, chiefly to understand and reduce government spend that would 'lock in' future greenhouse gas emissions and align the budget and climate change plans.

Just transition – the pathway to a net zero and climate resilient economy in a way that delivers fairness and tackles inequality and injustice.

Net Zero Assessment (NZA) - the Scottish Government's new quantitative carbon assessment for the individual policy level.

Net Zero, Energy and Transport Committee - group of Members of the Scottish Parliament (MSPs) that consider and report on matters falling within the responsibility of the Cabinet Secretary for Transport and the Cabinet Secretary for Net Zero and Energy.

New Zealand's Climate Implications of Policy Assessment (CIPA) - greenhouse gas (GHG) emissions analysis, known as a CIPA, for all policy proposals that go to Cabinet and meet certain qualifying criteria. ([Climate implications of policy assessment: guidance on Cabinet requirement for central government agencies | Ministry for the Environment](#)).

PAS 2080 - PAS 2080 guides the management of carbon across the lifecycle of buildings and infrastructure. It emphasises early collaboration, defined roles, and integrated decision-making for sustainability. ([PAS 2080:2023 Carbon Management in Infrastructure | BSI](#)).

Resource spending - covers what the government spends on its day-to-day running and administration costs.

Strategic Environmental Assessment (SEA) - assesses the likely significant environmental effects of a public plan, programme, or strategy. It considers how negative impacts can be avoided or minimised and, where appropriate, identifies opportunities for positive effects to be enhanced.

Whole life carbon - refers to total carbon emissions produced by each individual policy or asset over its entire lifetime.

NET ZERO ASSESSMENT PILOT- INDEPENDENT PEER REVIEW

Overview

The NZA pilot report has successfully demonstrated the potential to embed proportionate carbon assessment in the early stages of policy development and spending decision-making. This review concurs with the report's conclusions that the NZA methodology is workable, credible, and should be applied across the Scottish Government.

The NZA process would act as a filter to quickly identify policies that may increase carbon emissions and hinder progress towards Scotland's net zero target year of 2045. It would position Scotland amongst a number of countries with similar processes designed to assess the potential effects of policies on their achievement of net zero, including New Zealand, Sweden and Canada.

This review supports the report's findings and recommendations, agreeing that the NZA pilot has laid a strong foundation for integrating carbon assessment into policy-making, thereby enhancing efforts to achieve Scotland's net zero targets and address the climate emergency.

Introduction

On 25th November 2024, 16 documents relating to a pilot of the Scottish Government's Net Zero Assessment (NZA) process were provided for independent expert review to Lewis Barlow. Lewis is a Chartered Engineer, a Chartered Environmentalist and a Fellow of the Institution of Civil Engineers, where he is Trustee for Carbon and Climate. A list of the documents provided for review is included as Annex A.

The Net Zero Assessment (NZA) pilot project, conducted by the Scottish Government between March and October 2024, aims to embed quantitative carbon assessment in the early stages of policy development and budgetary decision-making. The goal of the NZA is to support decisions by providing early estimates of carbon emissions - increases or decreases - that may result from policies, allowing mitigation measures to be considered and enhancing opportunities for carbon emissions-reduction efforts.

The NZA pilot involved a proportionate, three-stage process as follows:

- Stage 1 consisted of an initial screening discussion between the lead policy team and a review panel to identify if the policy was likely to have an emissions impact above a 'de minimis' threshold.

- Stage 2 involved a 'light-touch' assessment of emissions impact, confirming whether the policy was above or below the de minimis threshold and identifying policies requiring full in-depth analysis.

- Stage 3 required a full quantitative emissions assessment for policies exceeding the de minimis threshold.

Of the 16 documents provided for this review, the principal document is "1.2 Net Zero Assessment NZA - Report on Pilot" (herein referred to as the Report), with the other documents comprising supporting information. The Report concluded that the pilot was successful, stating: "The pilot robustly and successfully tested the NZA three-stage methodology across a wide range of policies volunteered by portfolios or drawn from Programme for Government. The pilot clearly demonstrated how policies progress from initial consideration to Stage 1, Stage 2 and Stage 3 assessment" (p12).

The Report highlights the workability and credibility of the methodology, recommending its wider application: "Overall, the pilot proved the methodology is workable and credible and can be recommended for wider roll out across the Scottish Government" (p12).

This document comprises a review of the NZA process based on the documentation provided, including a categorised assessment, conclusions and recommendations.

Review

This section comprises a review of the NZA pilot, based on the provided documentation. Comments and recommendations are provided under the following categories:

- Definitions
- Thresholds
- Process
- Resources
- Implementation
- Governance

Each subsection contains an overview, followed by recommendations that are relevant for the NZA process (P), its wider implementation (I) and/or future consideration (F).

1. Definitions

The report and accompanying documentation contain variations on the word "carbon" and related terms, such as "greenhouse gases", "net zero", "emission impact", etc. The potential magnitude or importance of such emissions is also described variably in the documentation, e.g. "significant", "major", "material change", etc.

Recommendation:

1. Include a Definitions section in the Report to ensure consistent terminology. (P)

2. Thresholds

The initial de minimis screening threshold for the carbon emissions of policies was set at 1% of the national target level in any given year, which equated to 0.4 $MtCO_2e$ in 2020. This threshold proved to be impractically high, as almost no policy was likely to exceed this value. The pilot threshold was adjusted to a lower level of 0.1 $MtCO_2e$ in any one year or a cumulative 1 $MtCO_2e$ impact over a 10-year period. This adjustment aimed to capture a more realistic range of policies that could significantly impact emissions, ensuring that the NZA process remained relevant and effective in identifying policies requiring detailed analysis.

The Report notes that even the revised threshold might still be too high, as a large proportion of policies considered still did not reach the 0.1 MtCO2e threshold and were therefore evaluated as having no significant emissions impact. By decreasing the threshold, the number of policies subjected to the NZA would increase, thereby potentially improving the credibility and comprehensiveness of the assessment. However, this would

also increase the policy and analytical resources required, presenting a trade-off between the thoroughness of the NZA process and resource implications.

A revised de minimus threshold should also consider a potential scenario where multiple policies fall below the threshold, but if the policies were implemented simultaneously, the total resultant emissions could exceed the threshold. This is an unlikely scenario for policy impacts and is more relevant for multiple capital projects (e.g. a road building programme), although should still be considered.

Recommendations:

2. Reduce the threshold for emissions impact in the context of a more holistic view, considering the cumulative impact of multiple policies. (P)

3. When deriving a revised de minimis value, considering <u>greenhouse gas significance criteria published by the Institute for Environmental Management and Assessment</u> (IEMA). (P)

4. Include an additional early step, e.g. as part of Stage 1, to consider whether the policy is likely to increase or decrease carbon emissions, or have no measurable effect. (P)

5. If Green Book carbon values are to be used for assessments (in £/tonne CO_2e) values, consider adjusting them to match Scotland's 2045 net zero target year. (F)

3. Process

The NZA process is focused on emissions generated within Scotland, aligning with the Scottish Government's statutory climate change commitments. However, the Report also highlights the importance of considering "embedded" emissions, which are described as emissions associated with the production and transportation of goods and services consumed in Scotland but produced elsewhere. This broader scope would ensure that the NZA process captures a more comprehensive picture of Scotland's carbon emissions impact. It would also align with good practice that recognises whole life carbon emissions impact should always be considered (this is described as "lifecycle greenhouse gas emissions" in <u>National Planning Framework 4 (Part 2, Policy 2)</u>.

The NZA methodology is designed to align with existing impact assessments such as the Strategic Environmental Assessment (SEA) and Business Regulatory Impact Assessment (BRIA), ensuring consistency and avoiding duplication of effort. The NZA aims to support decision-making by providing early estimates of carbon emissions, allowing for the consideration of mitigation measures and enhancing the opportunities for emissions reduction.

Recommendations:

6. Expand the NZA to include whole life carbon emissions (national and international), aligning with policy and best practice. (P)

7. Expand on the final output of yearly emissions reductions to determine the complete carbon emissions impact (whole life carbon). (P)

8. Consider a minimum 20-year appraisal period for carbon emissions, up to Scotland's net zero target year (2045). (F)

9. Expand the NZA to cover procurement, capital investment, and business cases, learning from the approach to carbon management in the Scottish City & Regional Growth deals. (F)

10. Reference the PAS 2080 (Carbon Management in Buildings and Infrastructure) approach within the NZA, particularly in relation to environmental assessment and the planning process (NPF4). (F)

4. Resources

The Report explains that the successful implementation of the NZA process will require resources, including policy development skills, analytical support, and a central team for guidance, oversight, and coordination. Several potential delivery arrangements are identified, ranging from a fully centralised approach by a specialist team to a mainstreamed approach where policy teams lead their assessments with central team support.

The pilot highlighted the need for a combination of these approaches, depending on the specific requirements of the policy being assessed. For instance, policy teams could engage in self-assessment using developed guidance and tools, refer themselves to a central team for additional guidance when necessary, or have the central team actively oversee and engage with policy teams to ensure adequate standards for reporting.

The report also identifies several challenges associated with resourcing the NZA process. One key issue is the "intensive" resources required for the rollout across the government, especially given the need to align the NZA with other existing impact assessments like the Strategic Environmental Assessment (SEA) process. The pilot also revealed difficulties in engaging policy teams early in the policy development process, which is crucial for the NZA to influence policy design effectively.

The Report also notes that lowering the de minimis threshold to include a broader range of policies will increase the policy and analytical resources required, presenting a trade-off between the thoroughness of the NZA process and the resource implications.

Recommendations:

11. Provide details on the likely resources required to complete a net zero assessment, including time taken, skills, experience and possible grade required, associated recording and monitoring, and how these efforts may differ from existing Green Book carbon assessment requirements. (P)

12. Expand on the point within the Report that intensive resources are required for the rollout across government. (P)

13. Recognise the potential resourcing issue for complex policies that may require external technical expertise. (F)

5. Implementation

The results of any NZA need to be clear and consistent, however there is ambiguity over what levels of carbon emissions may be acceptable. This uncertainty extends to decision-making, particularly regarding advice provided to ministers. The report highlights that emissions estimates should accompany relevant submissions on key decisions, ensuring that ministers are informed about the potential climate impacts of policy proposals. How ministers will make decisions on these results is described within the Report.

The NZA process aims to guide policy options and support decision-making that aligns with Scotland's net zero targets. However, the pilot identified challenges in engaging policy teams early in the development process and ensuring that the NZA is effectively integrated into policy design.

It is apparent that the current guidance (within the documentation provided for review) would require specialist expertise to be effective, however more detailed guidance would be less open to interpretation and perhaps more widely deployable.

Recommendations:

14. Clarify how the results of the NZA are intended to be used, e.g., notably through advice to ministers. Likely scenarios could be discussed and templates developed for efficiency. This includes advice to ministers on how to interpret outputs from an NZA. (P)

15. Confirm the source of carbon emissions factors, e.g. adopt Green Book carbon assessment guidance but be clear about elements of the Green Book process that are not included in the NZA, e.g. the translation of carbon emissions into economic values. (P)

16. Consider linking the NZA process to the budget, thereby allowing carbon emissions and public sector spending to be considered simultaneously. (F)(I)

6. Governance

The NZA pilot has been designed to ensure that policies undergo an NZA in the early stages of development. Initial discussions and assessments are intended to be carried out during the early policy design and planning stages, before any policy decisions are made, to guide which policy options are developed and presented to Ministers. It is essential that governance of the NZA process is clear and consistent.

The NZA assessments will be the responsibility of lead policy teams, who need to commission their own analyses. These assessments will then be reviewed by a central review panel, which provides guidance and support. This approach should ensure that the assessments are of sufficient quality and that they are appropriately applying the proportionality built into the NZA process.

Transparency and consistency are crucial in the NZA process to maintain credibility and trust. The results of the assessments, including cases where no significant emissions impacts are identified, need to be consistently reported to senior leaders and Ministers to ensure that all relevant information is available for decision-making. The governance process also includes a central analytical function designed to validate the results and ensure that assessment standards are met. This approach helps to maintain a high level of transparency and consistency, which is essential for the credibility of the NZA process.

The NZA assessment itself is relatively clear, but without a robust governance process with suitably experienced decision makers in key positions such as on the Review Panel and through existing governance structures, its effectiveness is at risk.

Recommendations:

17. Provide details on how the Review Panel would be chosen, its terms of reference, and checks and balances to ensure consistent and transparent assessments. (P)

18. Clarify how the most appropriate option for governance of the NZA process will be chosen. (P)

Summary

The NZA pilot report successfully demonstrated the applicability and importance of embedding quantitative carbon assessment in the early stages of policy development and spending decision-making. This review concurs with the main report's conclusion that the NZA methodology is workable and credible, including the recommendation that it should be applied more widely across the Scottish Government.

It is agreed that the de minimis threshold above which policies should be quantitatively assessed should be lowered, although proportionality should be applied to avoid unnecessarily applying the NZA process. This review recommends that cumulative carbon emission impacts of all policies simultaneously should be considered in setting a de minimis threshold, to address the unlikely possibility that many policies appear to be under a threshold but when considered collectively they would result in significant emissions. However, the pilot study has indicated that that most policies reviewed would not result in increases in carbon emissions and even if these emissions were summed, the total would still likely be insignificant.

This contrasts with capital investment projects, e.g. involving buildings and infrastructure, where cumulative carbon emissions impacts are much more likely to be of relevance. It is important to note that National Planning Framework 4 and the associated planning process (including Strategic Environmental Assessments and Environmental Impact Assessments) ought to be consistent with the NZA process. Work is underway within the Scottish Government to develop planning guidance, considering research commissioned earlier this year, that should ensure this consistency.

The NZA process can be considered as a filter to quickly identify which policies have the potential to increase carbon emissions and hinder national progress towards net zero. It is a way of formalising and recording what should be happening in any case.

Following the recommendations contained in this review, the NZA process should be sufficiently robust to deploy across all potential policies to gauge their impact on carbon emissions and allow ministers to receive clear advice and make decisions in the knowledge that carbon emissions have been appropriately considered.

In summary, this review supports the Report's findings and recommendations and is in agreement with its conclusion that the NZA pilot has laid a strong foundation for integrating carbon assessment into policy-making, thereby enhancing the Scottish Government's efforts to achieve its net zero targets and addressing the climate emergency.

Annex A: Documents Reviewed

1.1. Policy Log for Peer Review- Classification of Policies qualifying or not for NZA pilot, focussing on GHG emissions.

1.2. Net Zero Assessment NZA Report on Pilot- Report summarising the NZA Pilot Project methodology outcomes and next steps.

1.3. Net Zero Assessment Peer Review- Presentation covering objectives of the NZA, methodology, process, assessment criteria considered, results of the pilot and conclusions on process.

2.1. Net Zero Assessment Guidance- Presentation covering definition, programme, process, De Minimis, key analytical points, governance, next steps.

2.2. Net Zero Assessment Analytical Guidance- Presentation following a similar agenda as Files 1.3 & 2.1 but goes more in depth into the assessment process and outcomes/ analysis criteria.

2.3. Net Zero Assessment Pilot, Workshop slides, April 2024- Presentation covering introduction elements, NZA Pilot programme and process, De Minimis, Key Analytical Points, Governance and Next Steps.

2.4. Net Zero Assessment Pilot, Policy workshops, outcomes, April 2024- Minutes summarising workshops held by OCEA and DCCD representatives to policy leads.

3.1. NZA governance structure- Workflow showing NZA process leading to; the assurance on the assessed policy by the Review Panel; the annual publication of progress on NZA roll out and uptake.

3.2. NZA Policy Team Information- Description of the roles and responsibilities of each party involved in NZA Governance structure workflow show n File 3.1.

3.3. Draft NZA assurance stencil, May 2024- Template to fill in findings from all five assessment stages for policy review following the NZA governance structure (File 3.1).

3.4. NZA Pilot, Education Reform NZA assurance statement, June 2024- Applied example of template File 3.3, using policy "Education (Scotland) Bill".

3.5. Net Zero Assessment Pilot, Assessment template, April 2024- Template form: submission for approval of quality assurance.

3.6. Submission to Ministers, Guidance- Partial guidance document for ministerial policy submission.

3.7. NZA Pilot, GCE Programme Board governance proposal, May 2024- Draft governance document detailing the role of the GCE Programme Board and DCCD NZA policy teams. Provides the process for NZA policy teams for their Ministerial submission.

3.8. NZA GCE Role, August 2024- Flowchart of the Ministerial submission process to be followed by NZA policy teams, the GCE-PB being responsible of ensuring this is followed accurately.

SEA Review- Evaluation of Strategic Environmental Assessments published from January 2023 on the Scottish Government's website to determine if and how GHG emissions information are included.

Scottish Budget 2025-26

Note on Climate Change Taxonomy Methodology

Context

1. Through the Joint Budget Review, the Scottish Government and Parliament agreed to the development of an enhanced taxonomy to provide a carbon assessment identifying and categorising the emissions impacts of all spending lines in the budget cycle. This paper provides an overview of the methodology used to develop the Climate Change Taxonomy.

Budget Climate Change Taxonomy approach

2. A taxonomy is an approach which assigns data into different groups or categories according to characteristics of that data which are relevant to the assessment. The main benefit of using a taxonomy for the Budget is that it allows for a relatively rapid assessment of the highly complex Budget data under a tight timescale. This is a necessary feature because the full Budget information is usually only complete and available two to three days prior to Budget publication.

3. A taxonomy-based assessment, based on 2015 work for Scotland's Low Carbon Infrastructure Taskforce, was initially used to assess the capital elements of the Scottish Budget between 2018-19 and 2023-24. From Budget 2024-25 the assessment process was reviewed and improved and its scope extended to include resource expenditure. Further improvements to the process have been made for the 2025-26 Budget.

4. The Climate Change Taxonomy assessment of the 2025-26 Scottish Budget provides a standardised approach to the classification of both resource and capital budget expenditure lines relative to their climate impact. The Taxonomy approach classifies expenditure lines across two dimensions, Alignment and Impact:

   - **Alignment**: this identifies if the spend line is positively aligned with the Scottish Government climate outcomes, is neutral, or is negatively aligned.
   - **Impact**: the scale of impact on Scottish Government climate objectives are rated against a high-low measure.

   This approach is described in more detail below.

Scope

5. The Budget is structured into 4 levels of increasing detail. These are;

    Portfolio- A portfolio represents each Cabinet Secretary's area of responsibility.

    Level 2- Level 2s represent top level commitments or spending to a given body.

    Level 3- Level 3s cover the team level expenditures.

    Level 4- Level 4s represent individual programmes of spend.

6. The Budget Taxonomy process is undertaken at the most granular level of expenditure data available, known as **level four**. The level four lines represent planned expenditure across a range of projects and activities with varying climate alignment and impact and about which the full detail may be unavailable at the time of the Taxonomy assessment. There were over 500 level 4 budget lines in Budget 2025-26.

7. The Budget Taxonomy is an assessment of planned expenditure included in the draft Budget which is categorised either as **Fiscal Resource** or as **Capital**. Other expenditure categories are not included within scope of the Taxonomy, specifically: Non-Cash; Financial Transactions; and UK-Funded Annually Managed Expenditure.

8. Also excluded from the scope of the Taxonomy assessment is expenditure assigned to local authorities as part of their block grant or other non-specific allocations. Information on how this funding will be spent is not available at the time of the draft Budget. Overall, the excluded local authority funding is £10.5bn or 19% of the total net Resource and Capital budget.

9. The Taxonomy assessment is conducted on the draft Budget and as a consequence does not include any changes made to the final Budget nor does it reflect the impact of any in-year changes made to expenditure allocations.

Process

10. The 2025-26 Budget Taxonomy involved four key stages:
    I.   September - October: Rating of the 2024-25 Budget to create an initial taxonomy dataset;
    II. Week prior to the Budget: Matching final 2025-26 Budget lines to pre-assessed 2024-25 budget lines;
    III. Week prior to the Budget: Evaluating new budget lines;
    IV. Immediately prior to Budget: summary analysis, quality assurance and write up.
    These four stages are described in more detail below.

11. To undertake these tasks, a review panel was formed comprising six officials with a range of expertise from across Scottish Government. The role of the group was to review each expenditure line of the Budget and to agree for each one a taxonomic rating for climate mitigation, for climate adaptation and an overall

rating. The review panel built on the process used in previous Budgets when the Taxonomy had largely been conducted by one person. The formation of the review panel enabled further discussion and moderation of the assessment of budget lines.

a. Rating of the 2024-25 Budget to create an initial Taxonomy Dataset

12. The Taxonomy Dataset process started with an assessment of the 2024-25 budget. Given that most budget lines carry over in various forms from one budget to the next, using the previous year's Budget in this way allowed the review panel to conduct the bulk of the Taxonomy assessment during September and October, well in advance of the 2025-26 Budget process, and thereby limited the amount of analysis that needed to be undertaken in the final days immediately prior to publication.

13. The review panel assessed each expenditure line (575 in total) on both a mitigation and an adaptation basis, giving an Alignment and Impact rating for each. Where the panel had a variety of views with no single majority view, then a single rating for both climate mitigation and adaptation was agreed through a moderation discussion. An overall rating for each line, covering Alignment and Impact, was derived based on the view of the moderation panel as to which was most significant.

14. In assessing the 2024-25 Budget, the review panel in some cases gave a different rating to expenditure lines compared to the previous year. In total 40 lines were given a different assessment.

    19 lines moved from neutral to positive and 2 to negative. 8 positive lines were reclassified as high impact and 3 were reclassified as low impact. While 2 negative lines were reclassified 1 from high to low impact and one from low to high impact. The net result is that positive high impact lines gained 10 lines, positive low impact gained 6 lines. Neutral lost 15 lines and negative high gained 1 line. Negative neutral lost and gained 2 lines

b. Matching final 2025-26 Budget lines to pre-assessed 2024-25 Budget lines

15. Once the final 2025-26 Budget was compiled, each spending line was allocated a Taxonomy classification. This was done by matching the spend lines in the 2025-26 Budget to those from the Taxonomy Dataset which had been pre-assessed in step 'a'. This was done through a semi-automated process in which each level four expenditure line was automatically matched by matching criteria before being manually validated.

16. Any 2025-26 Budget line which did not have a corresponding matching 2024-25 Budget line in the Taxonomy Dataset was then processed as part of the next stage of the Budget process (71 new Budget lines in total). A total of 90 lines from the 2024-25 Budget lines no longer appeared in the 2025-26 Budget.

c. Evaluating new Budget lines

17. The 71 newlines in the 2025-26 Budget were provided a Taxonomy classification through an equivalent process to that used in the Taxonomy Dataset (step a). Each new budget line was provided a classification by the lead analyst which was then validated by at least one other member of the review panel. More significant lines received additional scrutiny depending on the time available.

d. Summary analysis, quality assurance and write-up

18. Once the full and final 2025-26 Budget was assessed, the data was summarised, for example to produce results aggregated by category and headline totals.

19. The dataset was subject to a thorough quality assurance process by two separate analysts and the totals matched against those in the main Budget documents.

20. The aggregated totals and other results of interest were then incorporated into the narrative text that was published alongside the Budget.

Interpretation/strengths/limitations

21. The Scottish Budget is complex and its climate assessment needs to be conducted rapidly in advance of the Budget being published. The Taxonomy approach is well-suited to this environment as it allows a large amount of information to be assessed and processed relatively quickly.

22. The limitations inherent in taxonomy approaches are well recognised, for example in reports for Scottish Government by University of Edinburgh Business School and by Fraser of Allander Institute. In particular, some key limitations include:

- Individual Budget level 4s can fund a number of projects and policies each with varying impacts on emissions;
- The Taxonomy provides a broad assessment of the expected scale of impact (i.e. high or low) but cannot quantify emissions;
- The Taxonomy cannot take account of the duration of impact (e.g. some expenditure may have an impact only during the Budget year, other expenditure may have a lasting impact);
- The assessment is based on the judgement of a small group of experts.

23. Nevertheless, the enhanced Climate Change Taxonomy allows a consistent approach to identifying and categorising the emissions impacts of all spending lines in the budget cycle.