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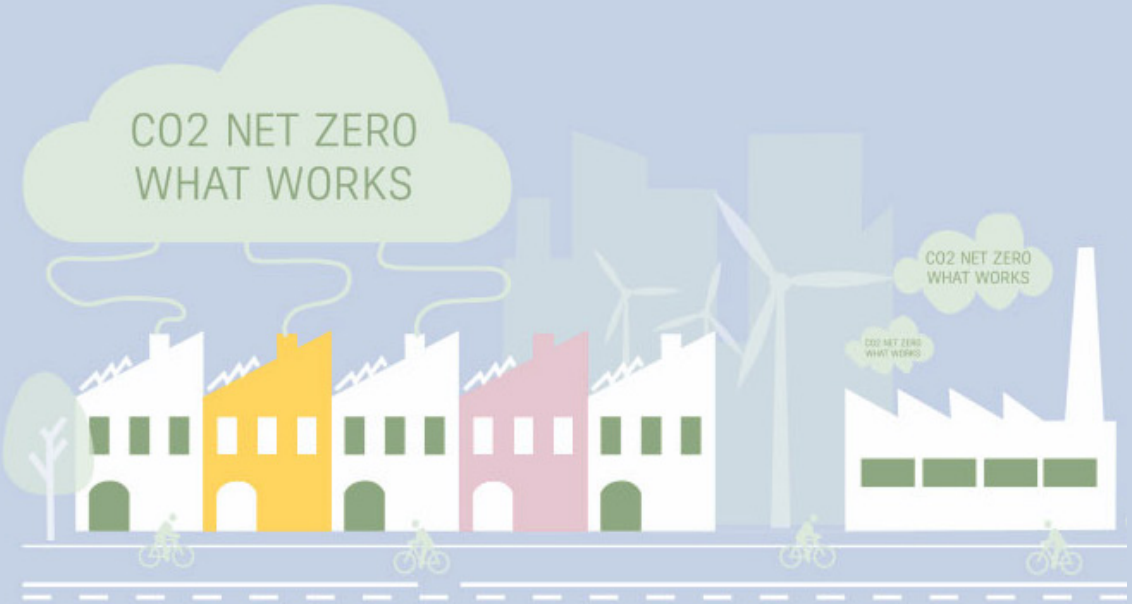

Choosing Scope 3 Tools and Toolkits:

a guide for local authorities

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Contents

About the authors
The authors of this guidance are part of the UCL Net Zero What Works Group based in the Department for Science, Technology, Engineering and Public Policy. The team is dedicated to validating and accelerating net zero activities. Stay updated through their LinkedIn page.

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Introduction

Purpose

This guidance is for helping those in local authority sustainability roles to:

- Choose the right tool/toolkit for measuring Scope 3 emissions, according to their needs;
- Have confidence in the appropriateness of the tool/toolkit they are using;
- Understand the rationale behind validating a tool/toolkit which includes Scope 3 measurements.

What is Scope 3?

The Greenhouse Gas Protocol categorises emissions into 3 ‘scopes’. Scope 1 is defined as direct emissions from a source that an organisation owns or controls e.g. the burning of fuel from organisation-owned vehicles. Scope 2 is defined as indirect emissions resulting from the purchase and use of electricity, steam, heating, and cooling. Scope 3 includes all other indirect emissions that occur outside an organisation’s direct operations, e.g. supply chain emissions, product usage and waste disposal.

Why have guidance on this topic?

Scope 3 emissions are usually the largest category of emissions, and the most difficult and complex to measure. Scope 3 emissions measurement methods are also relatively new and emerging, and there is currently (as of Autumn 2024) no central government guidance or mandated measurement. As such, it can be challenging to navigate the different tools and toolkits available and to establish which are valid for a particular local authority. This guidance is designed to ease the selection process, by giving users a tool to perform effective validation themselves.

How to use this guidance

Below is a table of validation criteria which can be used to validate the quality and appropriateness of a tool or toolkit for measuring local authority Scope 3 emissions.

Criteria	What to check	Interpreting and understanding what's important
1 Purpose What is the purpose of the tool or toolkit?	The stated or implicit purpose(s) of the tool or toolkit (vs. what you are hoping to achieve)	Identifying your purpose(s) for measuring Scope 3 emissions is key to selecting the most useful tool or toolkit. Purposes may include: measurement of greenhouse gas emissions for internal/external reporting, to inform the development of net zero strategies or policies, to offer comparison with other areas, to communicate insights to different stakeholders (e.g. public, suppliers, commercial sector), to facilitate reporting to sustainability frameworks, and more. Questions which can help you to identify your purpose(s), include: what are the primary goals we would like to achieve? Who are our main stakeholders, and what are their needs/ objectives? How will we measure success for this project?
2 Developer Who developed the tool or toolkit?	Name of the organisation and person or team if applicable	Who developed the tool/toolkit does not inherently determine its quality or appropriateness. Yet, in the absence of other information, this criterion can offer clues. Look for organisations with a good reputation, which ideally have been endorsed by government, membership bodies, or other reputable organisations, and are well-resourced with signs of engaging in methodological rigour (i.e. see criteria 6 and 7).

Criteria	What to check	Interpreting and understanding what's important
3 Up to date How up to date is this tool/toolkit?	i) When the tool/toolkit was last updated ii) What was updated iii) Whether the tool/toolkit is updated regularly	i) The more recently a tool/toolkit has been updated, the more likely it is that it represents the most relevant available information on Scope 3 emissions. ii) The tool/toolkit should detail what has been updated. In particular, emissions conversion factors should be updated where possible. It is worth considering whether the nature of updates improves the quality of the tool/toolkit. iii) Evidence of regular updates (e.g. yearly) indicates that the tool/toolkit will remain relevant in the long-term period.
4 Geographic scope What geographic regions does the tool/ toolkit cover?	Whether the tool or toolkit specifies geographic regions covered, e.g. England, Wales, UK, etc., and which geographic regions are covered	The tool/toolkit should specify what geographic regions it covers, as emissions multipliers based on a different region to that which you are measuring are likely to be less accurate. Therefore, aim to use tools/toolkits which are designed for, or can be, tailored to your geographic region (which is likely to be at a national level e.g. UK). Though, consider that your suppliers may conduct some operations overseas, and if measuring the emissions from specific materials (e.g. cement, paper), a sector-specific tool/toolkit may offer greater accuracy than a cross-sectoral tool/toolkit which is specific to your geographic region.

Criteria	What to check	Interpreting and understanding what's important
5 **Scale** What scale does this tool/toolkit measure at?	Whether the tool or toolkit is designed to measure at a per person, household, organisation, parish, city, local authority, or other level	What it is that you are measuring (e.g. your organisation's emissions, or the emissions within your local authority boundary) is a key consideration when finding a suitable tool/ toolkit. In particular, it limits your use of tools/toolkits which offer pre-determined estimates of emissions, based on large datasets. It is common for tools/toolkits to have two layers of scale, for example, it may show average per household emissions within a local authority. When considering the right scale, think about what you/other stakeholders intend to do with the results e.g. share them with the public, use them to compare your emissions with other regions/organisations, or to record progress towards climate goals. Also consider whether any other emissions or relevant measurements are currently taking place within your organisation that it may be useful to align with.
6 **Data transparency** Are data sources and assumptions shown?	i) Whether data sources for emissions conversion factors specified and fully referenced ii) Whether assumptions and limitations of the sources and multipliers used are specified	Transparency of data sources, emissions multipliers, and assumptions and limitations enable users to assess the quality of the tool/toolkit themselves, plus enables greater accountability to other parties.

Criteria	What to check	Interpreting and understanding what's important
7 Data reliability Is the data used dependable?	To what degree is the data used in the tool/toolkit underpinned by dependable data collection and verification procedures	The emissions factors or emissions data underpinning a tool/toolkit are most often derived from elsewhere. The tool/toolkit should specify the source of the data. For emissions multipliers, the main reputable source for the UK is the UK government (see specifically DESNZ's 'Government emissions conversion factors for company reporting of greenhouse gas emissions'). If you would like to or need to assess the reliability of the data yourself, look for whether the emissions factors underpinning a tool/toolkit have been developed through aggregating large and/or relevant samples of real-world data, and/or whether they are based on reasonable assumptions, which take into account real-world effects (e.g. fuel consumption emissions multipliers may take into account the condition of UK roads). Look for whether the data has confidence intervals - what is the confidence interval (typically, 95% is used) and how much range is there in the confidence interval?
8 Calculation method How appropriate is the calculation method used?	Whether the tool or toolkit offers: • Spend-based analysis (environmentally-extended input -output or EE-IOA); • Life-cycle analysis (LCA): cradle-to-gate or cradle-to-grave; • Which gases are measured e.g. CO2, CO2e, CH4; • Type of activity-based measurement e.g. multiplying emissions factors by weight, distance, litres etc.	Understanding this will help in determining the extent to which the tool/toolkit can give you enough accuracy considering the purpose of measuring, as well as what information you will need in order to engage with the tool. A spend-based analysis is generally less accurate than an LCA. Often spend-based analyses are used to identify priority areas for emissions measurement. Once those areas are identified, ideally LCA multipliers are used instead. Local authorities may want to favour use of cradle-to-grave rather than cradle-to-gate multipliers, as these account for product use and end of life emissions. Understanding whether emissions factors are cradle-to-gate or cradle-to-grave also prevents you from double-counting or undercounting emissions, for example, if you are measuring use of goods and waste processing separately. It is also worth noting whether emissions multipliers are for only CO2, or are for CO2e, which includes all major greenhouse gases in addition to CO2.

Criteria	What to check	Interpreting and understanding what's important
9 Outputs What type of outputs does the tool/ toolkit produce?	What the format of outputs is (e.g. table, graph), and how information is broken down	Consider the purpose of using the tool/toolkit. What and who are the results for? e.g. internal records, collaboration with other organisations, or for the general public. Given this, will the outputs be appropriate, and/or can they easily be formatted into the right output?
10 Alignment Is there alignment with other tools, toolkits, accreditations and frameworks?	Whether a tool/toolkit specifies its alignment with another tool, toolkit, accreditation or framework; Other forms of alignment may include alignment of the data sets being used, how emissions are being calculated (see criteria 7 and 8), or the scale at which outputs are given, e.g. per person or per household	What other tools, toolkits, accreditations and frameworks (TTAF) is your local authority currently using or planning to use? If you are using another accreditation or framework, does what can be measured with this tool/toolkit fit into your overarching goals (as captured by any other TTAF your organisation is using)? Check whether this tool/toolkit would be gathering the same data or similar data as any other TTAF being used. If so, aim to find measurement methods that, as much as possible, enable comparing like for like (see validation criteria 7 and 8). Also look at how the outputs from this tool/toolkit fit with outputs from other TTAF being used. Also consider how a tool/toolkit aligns with TTAF that other local authorities / organisations are using, which can enable comparison with other organisations.

Criteria	What to check	Interpreting and understanding what's important
11 Integration How can the tool or toolkit be integrated with existing tools/ software?	Whether the tool/toolkit is accessible to other staff. What other software it integrates with, and whether it offers bespoke integrations	Consider who needs to use it, either to input data, conduct analysis, or see results. Also consider how well the tool/toolkit will integrate with the current software that you are using, e.g. some tools offer integration with Microsoft BI.
12 Support and training What support is available for using the tool/ toolkit?	Whether the tool/toolkit has customer support and training resources, such as online guidance or training courses	Customer support can increase the likelihood that tools/toolkits are used (correctly). Think about who in your organisation would be using or inputting into the tool, and consider what type of support they would benefit from.

Criteria	What to check	Interpreting and understanding what's important
13 **Cost** What is the cost of the tool or toolkit?	This includes running costs, along with potential set-up and training costs	Many tools/toolkits are free. For those that cost money, an important consideration is whether purchasing them would entail going through the procurement process, and what their added value is compared with other tools/toolkits.
14 **Used by** Which other organisations are using the tool or toolkit?	What other types of oragnisation are using the tool/toolkit. If possible, see which other local authorities are using it	Who else is using the tool/toolkit does not inherently determine its quality or appropriateness. However, the types of organisation using the tool/toolkit may be an indication of who the tool/toolkit is primarily aimed at. Also, seeing which other local authorities are using the tool/toolkit can indicate how likely it is for data generated by the tool/toolkit to be comparable with other local authorities. It also may be useful to know which local authorities may be able to share their experience of using the tool/toolkit. Seeing who else is using the tool or toolkit is not always easy, though some tool/ toolkits developers may have case study examples. You can also ask your network, or neighbouring local authorities.

Relevant Resources

An overview of measuring and reporting Scope 3 emissions for local authorities: Local Government Association (no date) 'Climate change: reporting guidance for local authorities'. Available at: https://www.local.gov.uk/guide-climate-change-reporting-guidance-local-authorities

Guidance on measuring the Scope 3 emissions of social care for local authorities: Local Government Association (2021) 'Scope 3 greenhouse gas emissions for social care: Guidance for local authorities'. Available at: https://www.local.gov.uk/publications/scope-3-greenhouse-gas-emissions-social-care-guidance-local-authorities

Best practice guidance to measuring Scope 3 emissions: Cumberledge, T. (2013) 'Making Business Sense of Scope 3', The Carbon Trust. Available at: https://www.carbontrust.com/news-and-insights/insights/make-business-sense-of-scope-3

Official guidance and requirements for product life cycle accounting and reporting: World Resources Institute and World Business Council for Sustainable Development (2011) Greenhouse Gas Protocol: Product Life Cycle Accounting and Reporting Standard. Available at: https://ghgprotocol.org/sites/default/files/standards/Product-Life-Cycle-Accounting-Reporting-Standard_041613.pdf

Official guidance and standards for greenhouse gas emissions accounting and reporting: World Business Council for Sustainable Development and World Resources Institute (2004) Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition. Available at: https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf

Guidance for measuring Scope 3 emissions by each Scope 3 category: Greenhouse Gas Protocol (2013) Scope 3 Calculation Guidance: Supporting Documents. Available at: https://ghgprotocol.org/scope-3-calculation-guidance-2

Methodology

The guidance note has been prepared based on desktop research, interviews and focus group meetings in the period Q3 2023 to Q2 2024 with local authority support organisations and local authority staff in sustainability roles.

The researchers identified that local authorities had a potential need for guidance on net zero-related tools and toolkits through networking, informal conversations, and an initial review of academic and grey literature. They then undertook x11 qualitative interviews with local authority staff in sustainability-related roles, including officers, managers, councillors and directors. Interviewees came from a range of local authority types (e.g. unitary, metropolitan, London borough etc.), geographical locations (e.g. Scotland, Wales, East Midlands etc.) and typologies (e.g. inner city, coastal, rural etc.). Interviewees were asked about their use of and needs for net zero tools/toolkits.

Interview data was transcribed and analysed via qualitative analysis software, NVivo. The resulting data was used to refine the focus of the research towards Scope 3 measurements, then develop initial validation criteria, which was further informed by best practice guidance on Scope 3 emissions from the Greenhouse Gas Protocol, Carbon Trust, and Local Government Association. These initial validation criteria were reviewed by x2 focus groups consisting of third sector organisations who support local authorities (and develop tools/toolkits), and x1 focus group of local authority sustainability staff. The validation criteria and other research outputs were updated based on feedback.