



eden project



Working from home: Emissions Methodology

Author: Oly Longland, Sustainability Consultant

Introduction

At The Planet Mark we recognise that 2020 has been a turbulent year and a testing time for individuals and organisations alike. For many in our community, the shift in way of life caused by Covid-19 has been more of a burden than a privilege. Whatever our personal experiences, the reality is that nearly all organisations have experienced significant organisational and operational change this year. This has impacted not only on their total carbon emissions, but also on the relative importance of the different component sources of emissions that make up their carbon footprints.

Before the pandemic, working from home was relatively unusual within most organisations, a privilege enjoyed by relatively few derived from personal choice. In the months following the outbreak, increasing numbers of employees have been compelled to work from home. This has often resulted in organisations having reduced on-site utility consumption as electricity and natural gas are no longer needed to light and heat communal places of work. However, in many cases work has simply shifted from the traditional workplace to the home. In these cases, an observer can reasonably make the case that an organisation's footprint is not truly reflective of their total emissions if homeworking emissions are not accounted for. In addition, were this reporting year's carbon footprint to be artificially low this would have significant implications vis-à-vis the setting and monitoring of carbon reduction targets. For these reasons, homeworking emissions will need to be accounted for within the majority of organisational footprints this year.

This paper sets out The Planet Mark's approach to measuring homeworking emissions. We have created this approach to be as flexible and appropriate to the widest range of The Planet Mark holders as possible. However, we acknowledge that our approach may need to be more tailored for certain organisations and we fully anticipate and look forward to working with holders to ensure they feel our approach is as representative of their homeworking emissions as possible.

Methodology

Some emissions will always be associated with home use regardless of whether or not employees are working from home. Our methodology only considers the additional emissions associated with homeworking, not the emissions associated with home living that would otherwise have taken place. Additional homeworking emissions can be broken down into:

- Electricity – lighting and work appliances (laptop, monitor, printer)
- Natural Gas – heating during winter months (October – March)

Additional consumption from working from home has been taken from research conducted by UK price comparison service Uswitch which calculates additional consumption in percentage terms based on underlying data collection conducted by WSP.¹²

Electricity

Working from home electricity includes lighting and all the electricity involved in the running of work-related equipment (laptop, monitor, printer) operating 10 hours per day, 5 days a week, 48 weeks per year. Seasonal variations in lighting requirements have been averaged out over the course of the year. Reporting of renewable electricity procurement is optional.

Natural Gas

Natural gas consumption is apportioned on a month-by-month basis, with consumption applied equally across October – March. It has been assumed that working from home requires heating of a 25m² area. This is considerably smaller than the floor space of an average home to reflect instances where homes do not require additional heating for homeworking because other members of a household are already at home.

Furlough

Furloughed staff are excluded from working from home calculations.

Site Closures

Companies are required to report temporary site closures during the reporting year. Unless otherwise stated all non-furloughed staff at closed sites will be assumed to be working from home for the duration of the site closure.

1. Uswitch (2020): Stay-at-home Britons could spend an extra £52 million a week on energy bills. Available here: <https://www.uswitch.com/media-centre/2020/03/stay-home-britons-spend-extra-52-million-week-energy-bills/>

2. WSP (2020): Office vs. Home Working: How we can save our carbon footprint. Available here: <https://www.wsp.com/en-GB/insights/office-vs-home-working-how-we-can-save-our-carbon-footprint>

Scenarios for Homeworking Calculations

Organisations may be able to provide accurate data regarding the number of FTE employees from each site working from home on a month-by-month basis through the reporting year. However, for those members where it is known that employees work from home at least 2 days per week but precise data is not available, we have created three scenarios to help estimate home working energy consumption:

Scenario 1: For companies with an office we assume that employees work from home at least 2.5 days per week.

Scenario 2: For companies without an office we assume that employees work from home 4 days per week.

Scenario 3: As previously mentioned, for companies whose offices are shut because of lockdown we assume employees work from home 5 days per week.