Philips' Corporate Emission Accounting Methodology

Scope 3 – Category 11: Use of sold products

PHILIPS

At Philips, while we focus on our purpose to improve people's health and well-being, we acknowledge that the healthcare industry is a major contributor to climate change and waste. As such we are committed to pave the way for a low-emission future by reducing not only our scope 1 and 2 emissions, but also our indirect scope 3 emissions. This effort is supported and overseen by the Executive Committee, which seeks increased transparency for its stakeholders to ensure accountability.

We account for 100% of scope 1 and 2 emissions from operations over which Philips or one of its subsidiaries has operational control, but not for emissions from operations in which Philips owns an interest but does not have operational control. By contrast, scope 3 emissions are derived from indirect activities outside Philips control, meaning calculations also include non-operated assets.

Of the 15 scope 3 subcategories, we account for Philips' five most material categories, which together make up 95% of our scope 3 emissions. These are: purchased goods and services (category 1), upstream transportation and distribution (category 4), business travel (category 6), downstream transportation and distribution (category 9), and use of sold products (category 11).

Each scope and scope 3 category is subject to its unique methodology elaborated on in its own document. All calculations are in line with the Greenhouse Gas Protocol; used for management purposes; in line with our Science Based Targets initiative submission; and subject to reasonable assurance by the external auditors of Philips.

Scope 3

Category 1
Purchased goods and services

Category 6
Business travel

Category 4 & 9
Upstream and downstream transportation and distribution

Category 11
Use of sold products

Scope 3 – Category 11: Use phase

1 Introduction

Energy consumption during the use phase of sold products comprises the majority of Philips' environmental impact. This document will further explain the methodology used to calculate these emissions which is done in conjunction with the Environmental Profit & Loss (EP&L) statement. For more information on the EP&L methodology please refer to the ESG downloads page.

All calculations are derived from Philips internal management systems meaning no primary data from Philips suppliers are leveraged (0%).

2 Methodology

To calculate emissions (in tonnes CO_2-equivalent) during the use phase of our products we apply an average data approach that builds on average use patterns and rated wattages.

Tonnes CO_2-e = Lifetime energy use x Number of units sold x Country emission factor

It should be noted that the energy consumption during the full lifetime of the products sold is included in the emission calculation of the year of sale. Yearly emission levels are therefore overstated as they also include the future energy consumption of the products sold at today's grid emission factors (whereas grids are expected to become greener). The decision to include the entire lifetime energy use was made because the life-cycle impact is 'generated' in the year of sale.

Moreover, reference products are used as a proxy for a group of similar products with similar use patterns and energy efficiency (grouped according to business group and cluster). On a monthly basis sold products are mapped to corresponding reference products via their material ID. On a quarterly basis product sales are then validated to ensure the high selling products are classified as reference products with unique energy consumption data.

2.1 Lifetime energy use

For the lifetime energy use, an average use-case scenario is applied that is dependent on the power consumption, duration, and frequency of use. This is the same for both Personal Health, Connected Care, and Diagnosis & Treatment products with the distinction being that a varying number of modes may apply.

For all Healthcare diagnostic imaging equipment, we calculate the energy consumption according to the average use case. In 2024, we partially aligned our energy consumption calculation in accordance with the COCIR standard. This standard describes how a measurement should be carried out and what use case scenario to apply as to number of hours per day in ready-to-scan, standby, off and scanning mode. As stated in the EP&L methodology, the worst-case scenario is applied (e.g. 10 hours of scan mode instead of 10 hours of alternating between scan and ready to scan mode), which provides an overestimation of the impact. In 2025 we will continue to align our approach with COCIR.

In contrast Personal Health only considers the On-, Standby-, Battery-charging- and Off-mode. The duration in the different modes is determined by leveraging our internal expertise and consulting our product experts. Market research is also used to identify consumer use.

The total lifetime energy use per mode is then set by switching the device into that mode, given time to stabilize in that mode and then the average power consumption of the product in that mode is measured for a specified time. For the scan mode, this involves applying the scan and entering the average measured power consumption over time.

In the case that the underlying Connected Care or Diagnosis & Treatment product also entails a battery, the battery-charging-time and average power consumption during battery-charging are included as separate modes in our energy use calculations. The change in battery efficiency over the product's lifetime is not considered and it is assumed that battery-charging cannot happen while the product is in on or scan mode via a power outlet.

For Personal Health products that are battery powered only the off and battery-charging-mode are of interest. This is because it is estimated that electricity is only consumed during battery-charging. Similarly, to Health Systems it is also not assumed that battery efficiency changes over the product's lifetime.

The total energy impact is also determined by the number of days that the underlying product is used per year and the total lifetime. For the frequency of use, we apply a number based on market research and expert review. As to lifetime, this is based on our guaranteed service lifetime. For Personal Health equipment, the applied lifetime is aligned with the lifetimes as used in the Lives Improved calculation. These inputs are then used to finalize total lifetime energy usage.

2.2 Number of products sold per country

The number of products sold per country is determined by leveraging the Philips Management Accounting (PMA) database that records sales per country. It is assumed that the products are used in the country of sale meaning cross border movement is negligible. The reference products are mapped to the PMA data via Material IDs monthly. For more information on this process, please refer to the EP&L methodology.

3 Emission factors

As of 2023 we measure the impact of the electricity consumption of our products based on the specific energy mix of the country where the products are sold. These country specific emission factors are derived from EcoInvent (v3.9.1), which is done in conjunction with the EP&L calculations.

EcoInvent regularly publishes life cycle emission factors for electricity grids in various countries[1]. This includes upstream processing, production of electricity, infrastructure related to the electricity production plant, and production and distribution losses. The decision to use EcoInvent was made in response to the GHG protocol guidelines that demand life cycle emission factors to be considered. Furthermore, this decision has streamlined our emission reporting across our EP&L. For those countries without an emission factor, the market is first used and if the market is not available, then the world average is being used.

4 Global Warming Potentials

In accordance with international reporting requirements, emissions from each of the gases is weighted by its Global Warming Potential (GWP), so that total Greenhouse Gas emissions can be reported on a consistent basis. For all our use phase emissions the GWPs are used from the IPCC sixth Assessment Report.

[1] ecoinvent Database – ecoinvent. (2022). Retrieved from https://ecoinvent.org/the-ecoinvent-database/

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