

Vodafone UK Carbon Footprint Report

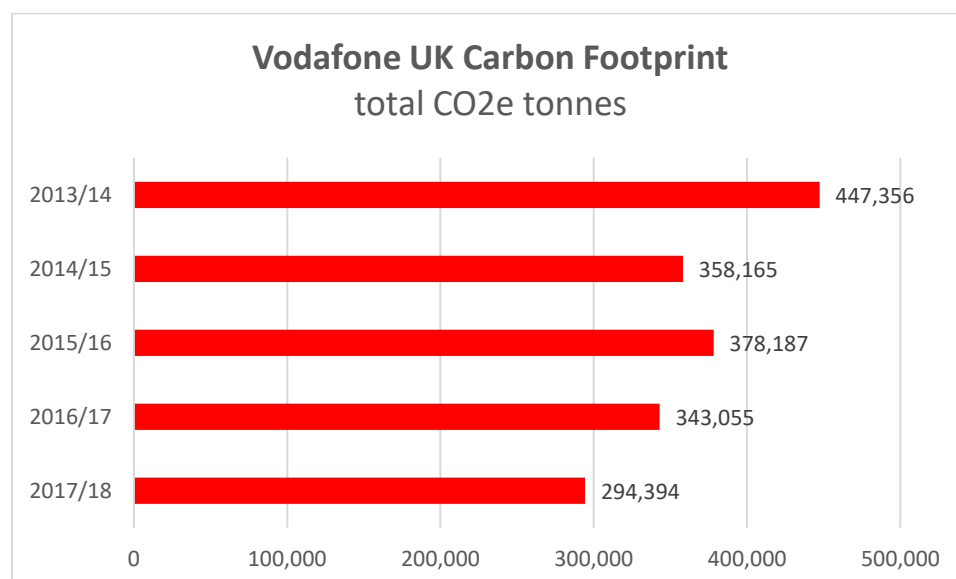
What is our Carbon Footprint?

At Vodafone we monitor and measure all our major greenhouse gas emissions, which are dominated by electricity consumption. Electricity consumption accounted for 74% of our 2017/18 footprint. Our UK carbon footprint, or greenhouse gas emissions, is calculated annually and externally verified. We make our carbon footprint data available through our sustainability reporting and the Carbon Disclosure Project.

Since 2015, our emissions have been reducing by 9.3% from FY 2016 to 2017, and by 14.2% from FY 2017 to 2018.

Greenhouse Gas Emissions data

2013/14 was the first time that we used the internationally-recognised reporting methodology, the "Greenhouse Gas Protocol" (the GHG Protocol), published by the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI). Our data has been externally compiled and verified since then.



Notes on the carbon footprint data:

2014/15 data excluded 'third-party electricity consumption' (i.e. consumption associated with shared sites, which may be double counted if it is included in our figures). If third-party electricity is excluded from 2013/14 data, then Greenhouse Gas emissions are 404,664 tonnes CO₂e.

2015/16: In line with best-practice reporting, we have included additional scope 3 emissions associated with transmission and distribution of electricity, resulting in an increase in our carbon footprint from the previous year. However, in comparing like-for-like emissions, we have achieved a reduction of 15%, or 52,192 tonnes, from the previous year. This is due to factors including site rationalisation, refurbishments and the roll out of energy efficiency programmes such as free cooling.

How are we reducing our Carbon Footprint?

Vodafone is committed to carbon reduction across the business, with programmes which use new technology and innovative approaches to change the way we run our networks. We incentivise changes in behaviour, and we are switching to renewables on our journey to use 100% renewable energy.

We achieve carbon reductions each year, despite growth in our customer base and development of our network. Our CO₂e emissions data, verified externally, shows an annual reduction of 9.3% in 2016/17 and 14.2% in 2017/18.

Sustainability and purpose are strategic priorities for us and from our Chief Executive down, we are committed to making a positive impact in society. Carbon reduction is crucial for achieving the ambitious goals for 2025 that were set by our Board in 2017:

- To purchase 100% of our electricity from renewable sources (Vodafone are RE100 signatories)
- To reduce greenhouse gas emissions by 40% (a science-based target)

Our carbon strategy focuses on reducing energy use, which accounts for over 90% of our greenhouse gas emissions, as our first priority. The strategy focuses on:

- **Operational excellence:** Changing behaviours, through our ISO14001 and ISO50001 certified Management Systems and our innovative Energy Performance Contract (EPC). We entered into the EPC with our facilities management and maintenance contractor in 2017. The contract sets financial rewards and penalties for achieving or failing to achieve energy savings. This incentivises our contractor to not only provide excellent facilities management and network maintenance (e.g. ensuring that our network has uninterrupted power and runs at a consistent temperature), but to also do act in an energy conscious way. Opportunities are identified including behavioural changes, e.g. moving staff to different floors or buildings in order to save cooling, heating and lighting of under-utilised office space. They have also changed to efficient lighting systems, variable speed drives and pump controls. Energy savings must be measured and verified by a third party.
- **Investment and innovation programmes:** We have a multi-million-pound budget for energy efficiency projects each year, which include investments in air conditioning and power system upgrades. We use our own network to provide innovative carbon reduction technologies, and in 2018 we have trialled a system to control network cooling temperatures using Artificial Intelligence. The system constantly learns, and so changes in the load profile of the network are accommodated automatically.
- **Rationalisation:** As we improve our networks (e.g. roll out of 5G), we look for ways to redesign and rationalise our estate.
- **Switching to renewables:** We already have exclusive purchase agreements with two wind farms, and we are developing on-site renewable opportunities. We are trialling electric hybrid vans for our engineers, and have installed vehicle charging points across our estate.