

PLANET

# Energy & climate change

We work to reduce our energy consumption and carbon footprint through developing energy efficiency activities and identifying CO<sub>2</sub> emission reduction opportunities



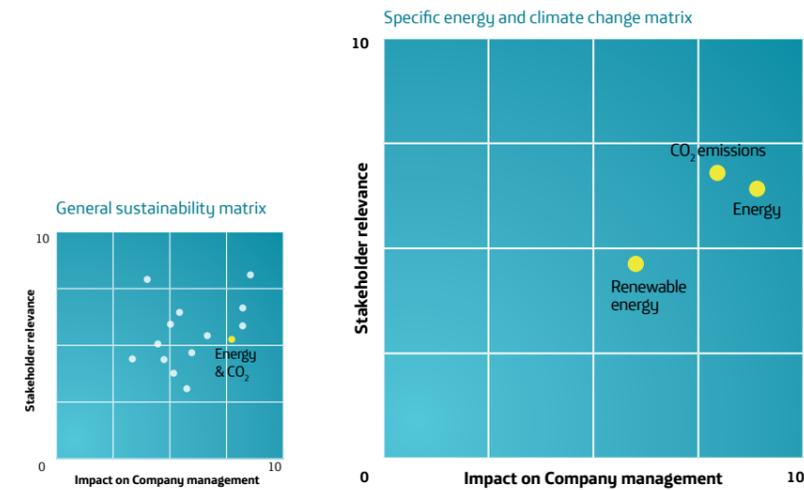
Through the Climate Change and Energy Efficiency Office we work to reduce our energy consumption and carbon footprint, promoting energy efficiency activities in each of our operations, identifying CO<sub>2</sub> emissions reduction opportunities and making tangible the results of this effort.

This work allows us to reduce our energy costs, improving our competitiveness by being able to offer customer service for the best price. In addition we help our partners generate business, as they are essential for the development and implementation of energy efficiency projects.

## Energy efficiency in Telefónica



## Materiality matrix



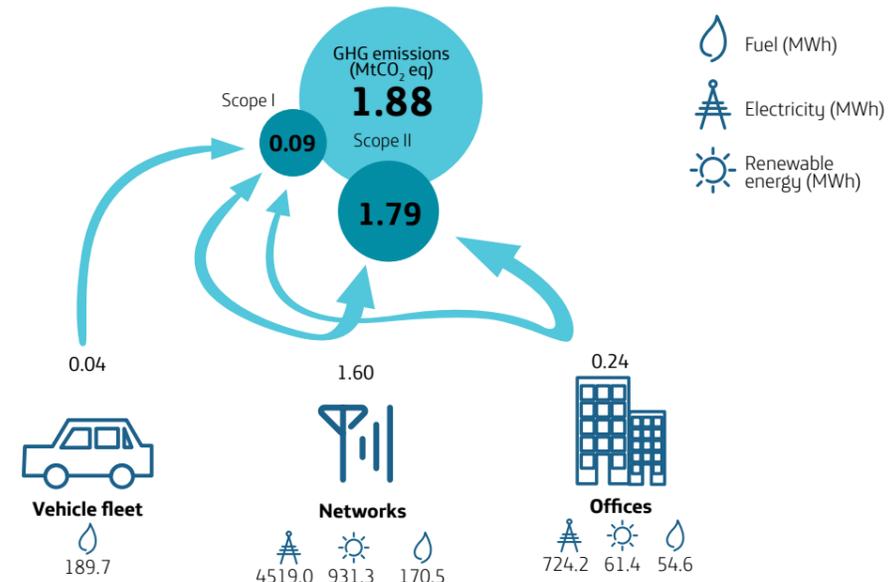
## Energy and emissions inventory

Every year we quantify Telefónica's energy consumption and calculate our carbon footprint using a global model based on the GHG Protocol of the ISO 14064 standard and the recommendation ITU-T L.1420 "Methodology for measuring energy consumption and GHG emissions due to ICT in organisations" from the ITU. We also carry out an independent energy

and emissions data verification process under the auspices of AENOR. This allows us to identify improvements in our processes and to manage energy and carbon transparently.

The Corporate Office carries out this annual accounting procedure for energy and emissions at global level and for each of the operators of the Group, using a unified methodological approach.

## Telefónica\* Energy & Emissions Inventory



\*Energy and emissions data being verified by specialists.

## Best practice

### Data Center - Alcalá

In April 2013 Telefónica inaugurated the 'Alcalá Data Center' outside Madrid, an innovative data center with maximum capacity for the digital services of the future. Classed as one of the most efficient in Europe, this innovative data center, which will serve as the base for the cloud services offered by Telefónica all over the continent, will carry on growing progressively until completion to then become the most efficient and ecological giant in the world, with a total of 23 IT rooms and capable of saving 75% on energy consumption compared with other conventional data centers. It will satisfy the most demanding requirements for excellence by international standards (Green IT), with the latest electrical and cooling infrastructure. For instance, it will achieve a PUE (a unit of measurement for energy efficiency) of 1.3, compared with the average current 2.4 for such installations.

[More info](#)



**More info**  
 Vídeo: [Alcalá Data Center](#)



Telefónica Energy Managers @ 2014 Energy and Climate Change Global Workshop Panama City.  
[More information](#)

## Activities & results

To reduce GHG emissions, we are working along three lines of action:

- Reduction of electricity consumption through projects that improve energy efficiency: we have carried out 16 global energy efficiency projects, yielding savings of 9.1 GWh of electricity use and reducing its cost by 4.7 million euros.
- To reduce the use of fossil fuels in operations, offices and vehicle fleets, substituting them by more efficient and cleaner sources of energy, using vehicles that consume less such as hybrids or electric cars, and reducing the distance travelled by improved fleet management. We have achieved a 15% reduction in fuel consumption in networks and vehicles thanks to energy-saving measures and monitoring consumption.

→ Encouraging the use of renewable energy, mainly in those places where the mains electricity is difficult to access. We have acquired 5% more of our energy from renewable sources than the previous year. Currently, about 15% of the electricity consumed by Telefónica comes from renewable sources, so avoiding the generation of over 280,000 tonnes of CO<sub>2</sub>-equivalent.

Similarly, we share the best practices with other companies of the Group and recognise the best projects each year publicly.

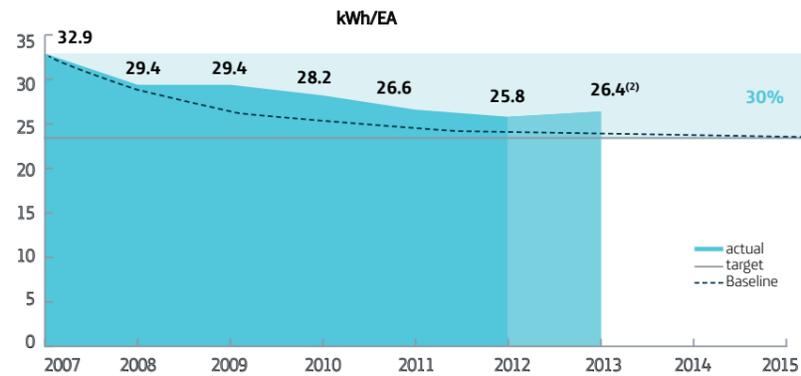
We held the 'V Telefónica Workshop on Energy and Climate Change in Panama, where over 100 people gathered, including energy managers, technological partners and other special guests. The teams from Germany, Mexico and Brazil were recognised as the best managers and developers of energy efficiency and renewable energy projects at global level: <http://www.rcysostenibilidad.telefonica.com/blogs/2013/12/04/los-equipos-de-alemania-mexico-y-brasil-logran-los-premios-de-nuestro-reto-de-eficiencia-energetica/>

## Energy and CO<sub>2</sub> targets

Telefónica, through the Office of Climate Change and Energy Efficiency, set three global targets

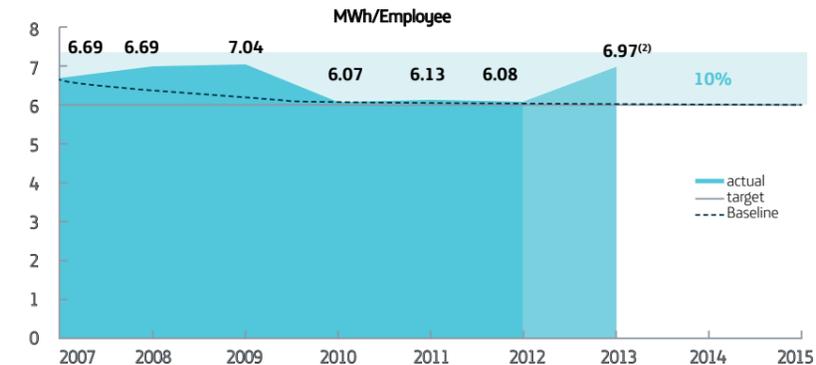
on energy and CO<sub>2</sub> in order to promote, monitor and manage the work carried out to reduce our energy consumption and carbon footprint.

### 30% Energy consumption in networks Equivalent access<sup>(1)</sup> 2007-2015



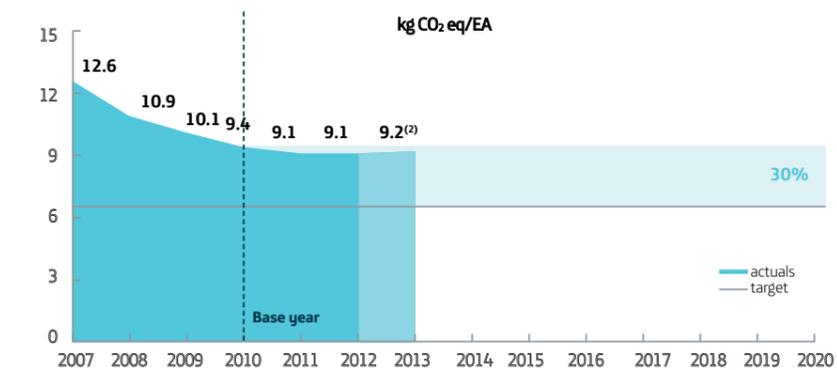
Energy consumption in networks continues growing due to the deployment of new network technology to deliver new digital services and the increasing of data consumption in the recent years. The moderate rise of our equivalent accesses and the implementation of energy efficiency activities in networks bring us closer to achieving the goal.

### 10% Electricity consumption in offices Employee 2007-2015



Despite the improvement of energy efficiency in offices, we still monitor the power consumption per employee every year due to the simplification of organizational structure carried out in several companies.

### 30% CO<sub>2</sub> emissions Equivalent access<sup>(1)</sup> 2010-2020



Our CO<sub>2</sub> emissions have remained stable in recent years, about 1.8 million metric tons, due to the reduction of fossil fuel in operations and vehicles fleet and the implementation of energy efficiency projects in networks and offices.

In Europe and Latin America, the electricity emission factor is still increasing, where 90% of our emissions come from, which significantly affects our target.

<sup>(1)</sup> Equivalent Accesses: The sum of the total accesses (broadband, fixed voice, mobile voice, TV, etc.) weighted by the relative power consumption.  
<sup>(2)</sup> Energy & emissions data of 2013, under process of external verification.