



# 2015 environmental sustainability metrics and methodology

## KPMG environmental performance

At KPMG LLP (KPMG), we are focused on the long-term impacts of our decisions. That is why environmental sustainability is a core component of KPMG's corporate responsibility strategy.

Implementing environmentally sustainable principles, reducing our greenhouse gas emissions, and addressing local environmental challenges adds value for our clients and reflects the integrity and ethics of our professionals.

KPMG is proud of its success in the first phase of our environmental sustainability initiative. Between 2007 and 2010, the firm achieved a 22 percent reduction in gross emissions per full-time employee (FTE).

Building on this momentum, five years ago, KPMG set a goal to cut net emissions by 10 percent per FTE against the 2010 baseline.

We exceeded that goal—cutting our net emissions by 26 percent per FTE. That number reflects an increase of employees, a decrease in office electricity, investments in renewable energy, as well as active management of our air and car travel.

Other ways we have advanced sustainability over the last five years:

- Reduced office electricity by 30 percent
- In 2015, more than 20 percent of our electricity was sourced from renewable energy providers
- Increased number of LEED-certified offices from 5 to 32
- Tripled the use of video-conferencing and
- Increased employee participation in mass-transit benefits by 25 percent

Air travel represents 51 percent of our carbon footprint and is the biggest challenge in the years to come. KPMG works continuously to better manage office energy consumption and business travel and to implement creative solutions to reduce its impact on the environment.

KPMG also joined the American Business Act on Climate Pledge and pledged to further reduce our net emissions by 10 percent per FTE and purchase 100 percent renewable energy for our offices by 2020.

## Greenhouse gas emissions for KPMG

### Emissions by scope

Since 2008, KPMG measures and reports on the volume of greenhouse gas (GHG) emissions that result from our operations each year. GHG emissions are measured as CO<sub>2</sub> equivalent metric tonnes (MT CO<sub>2</sub>e) and are classified as:

- Scope 1 – Direct emissions: emissions from diesel fuel and natural gas
- Scope 2 – Indirect emissions: emissions from electricity consumption
- Scope 3 – Indirect emissions: air travel, car travel, shipping, waste, and paper consumption.



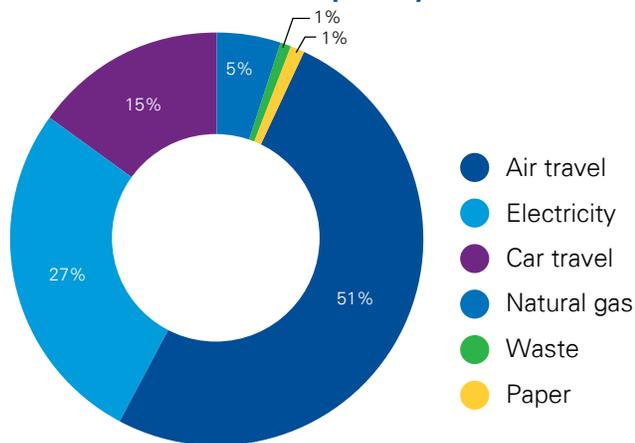
Below is a summary of KPMG's 2010–2015 environmental performance results.

Emissions summary (in metric tonnes of CO <sub>2</sub> e) <sup>1</sup>	2010	2011	2012	2013	2014	2015
<b>Scope 1 – total</b>	<b>5,190</b>	<b>5,266</b>	<b>6,540</b>	<b>6,342</b>	<b>7,042</b>	<b>6,733</b>
Electricity – solar	0	0	0	0	0	0
Natural gas	5,190	5,266	6,540	6,342	6,989	6,666
Diesel	n/a	n/a	0.118	0.189	53	67
<b>Scope 2 – total</b>	<b>46,236</b>	<b>44,495</b>	<b>35,292</b>	<b>35,518</b>	<b>37,784</b>	<b>33,673</b>
Electricity	46,236	44,495	35,292	35,518	37,784	33,673
<b>Scope 3 – total</b>	<b>63,296</b>	<b>77,143</b>	<b>81,429</b>	<b>87,229</b>	<b>94,060</b>	<b>86,511</b>
Air travel	44,769	52,161	57,625	62,564	68,274	65,172
Car travel	15,223	21,816	21,223	22,251	23,660	18,664
Shipping	93	64	89	78	82	85
Waste	1,686	1,825	1,239	1,212	1,027	1,563
Paper	1,525	1,278	1,254	1,124	1,017	1,028
<b>Total gross</b>	<b>114,722</b>	<b>126,904</b>	<b>123,261</b>	<b>129,089</b>	<b>138,887</b>	<b>126,918</b>
Renewables	0	(219)	(829)	(1,430)	(2,827)	(10,390)
<b>Total net</b>	<b>114,722</b>	<b>126,685</b>	<b>122,432</b>	<b>127,659</b>	<b>136,060</b>	<b>116,528</b>

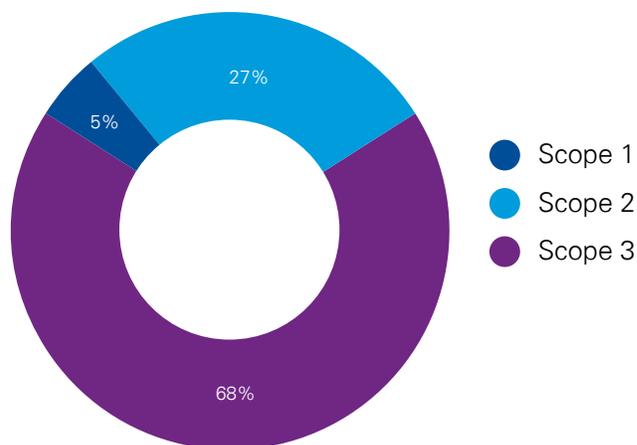
**Emissions per FTE**

Emissions summary (in metric tonnes of CO <sub>2</sub> e) <sup>1</sup>	2010	2011	2012	2013	2014	2015	2010–2015 Change per FTE
Total gross emissions	114,722	126,904	123,261	129,089	138,887	126,918	-19%
Renewable energy	0	(219)	(829)	(1,430)	(2,827)	(10,390)	
Total net emissions	114,722	126,685	122,432	127,659	136,060	116,528	
<b>Net emissions per FTE</b>	<b>5.82</b>	<b>6.11</b>	<b>5.66</b>	<b>5.92</b>	<b>5.5</b>	<b>4.34</b>	<b>-26%</b>

**Carbon footprint by source**



**Carbon footprint by scope**



<sup>1</sup> Due to rounding, reperforming the calculations given in the equations may not return the exact results shown.

Currently, most U.S. KPMG offices participate directly in the environmental data collection process for office electricity, waste, natural gas, and recycling, representing 96 percent of the U.S. firm's headcount. We applied proxy data to estimate emissions for the remaining offices to calculate combined emissions across all KPMG offices. Air travel, car travel, and paper are collected on a national basis from our vendors and internal expense reimbursement systems and represent all offices.

As a global service-based organization, managing our environmental impacts begins with focusing on the key sources of our emissions and the greatest opportunities for reduction. In our office spaces, KPMG continually strives to be more efficient in the consumption of electricity by designing our offices to U.S. Green Building Council standard and investing in alternative energy sources, such as solar panels on our New Jersey campus and renewable energy in our offices. Further reductions are also achieved through investments in high-efficiency lighting, flexible workspace, ENERGY STAR office equipment, and IT. Utilizing video conferencing capabilities for internal meetings in place of air travel further reduces emissions related to travel. Employees receive incentives to use public transit and energy efficient vehicles are available.

Environmental management efforts are not limited to reducing carbon emissions. Additional opportunities to promote environmental sustainability are also sought, including reduction of paper and water consumption by implementing solutions, such as EPA Water Sense fixtures, a green meeting toolkit, and promoting periods without printing. KPMG's IT suppliers have also been engaged to help manage electronic waste, and KPMG offices have instituted rigorous recycling and composting programs across the country.

#### **Data collection and consolidation**

KPMG coordinates the data collection and consolidation across the United States to calculate the U.S. firm's carbon footprint. In 2008, the initial year of data collection, KPMG in the U.S. worked with KPMG International to design a global methodology, based upon the GHG Protocol, to guide global KPMG member firms and promote a consistent approach.

#### **Methodology**

KPMG reports GHG emissions in metric tonnes of CO<sub>2</sub> equivalents (MT CO<sub>2</sub>e). GHG emissions are calculated for the following environmental parameters: electricity, energy fuel use, solid waste, shipping, air and car travel, and paper. Calculations are determined by multiplying the environmental indicator's activity data with a specific emission factor. In its GHG emission calculations, KPMG follows the GHG Protocol Corporate Standard developed by the World Resources Institute

and the World Business Council for Sustainable Development. All applied emission factors were derived from sources, guidance, and methodologies referenced in that protocol. Final emission factors measure the carbon dioxide equivalent (CO<sub>2</sub>e) of combined greenhouse gases (carbon dioxide, nitrous oxide, and methane gas) and have been converted to the necessary unit of measurement for reporting purposes.

#### **Air travel**

Air travel emissions are determined by applying emission factors to total travelled flight distances. Emission factors stem from the U.K. Department of Food and Rural Affairs (Defra) and are categorized by flight distance (short-haul: up to 500 kms, medium-haul: 501–1599 kms, and long-haul: over 1,600 kms) and by class of travel.

In 2013, Defra updated its methodology to determine the air travel emission factors to include emissions related to both "uplift" and "radiative forcing." Defra air travel emission factors now include an eight percent "uplift" factor to account for indirect flight routes, delays, and circling.

"Radiative forcing," or RF, captures the impact of releasing combustion emissions and water vapor at high altitude. The inclusion of RF factors increases air travel emissions by 90 percent. For 2015, KPMG used the 2015 Defra emission factors without RF. KPMG's next baseline will be calculated using the RF inclusive factors. The impact will be significant and the firm is planning for this impact.

#### **Energy**

Energy consumption data (including electricity, natural gas, and fuel for electricity and heating) is collected by office based on invoices. The most accurate emission factor available at the collection date is applied for each office. Most KPMG offices are located in leased buildings shared with other tenants. In offices where separate metering is not available, estimates are used for electricity, heating, and cooling based upon the leased floor space. In addition, where applicable, energy consumption associated with common areas such as lobbies, cafeterias, and elevators, is also included.

#### **Electricity**

Electricity emissions are calculated based on invoiced and estimated consumption values. To calculate emissions, KPMG utilized localized emissions factors (kg CO<sub>2</sub>e per kWh) for each KPMG office, based on the U.S. Environmental Protection Agency (EPA) eGRID subregions. The EPA eGRID program determines regional emissions factors based on the area's generation mix and usage. For consistent comparison purposes, KPMG used the U.S. EPA eGRID subregion GHG output emission rates (2010 data).



## Natural gas

Natural gas is used primarily for heating and to lesser extent for energy generation. Natural gas emissions are calculated based on invoiced and estimated consumption values. To calculate emissions, KPMG applied an emissions factor from the GHG Protocol for the stationary combustion of natural gas.

## Diesel

Diesel fuel is consumed to run and test backup generators. Consumption data is provided by the local offices. To calculate emissions, KPMG applied an emissions factor from the GHG Protocol for the stationary combustion of diesel.

## Car travel

Emissions from vehicles of KPMG employees are included, when incurred for business-related travel, excluding their normal commute. Emissions from car rental and taxis are also included and determined through the application of a national vehicle emissions factor to the number of miles traveled.

Reimbursed employee miles are sourced by the firm's expense reimbursement system. Rental and taxi travel distance was not available. Mileage was determined based on the number of trips. An average distance of 56 miles per rental trip (based on data from KPMG's third-party travel services provider) and 13 miles per trip for taxi trip (based on a Schaller urban transportation study). To determine the car travel emissions, the aggregate sum of reimbursed, rental, and taxi mileage was multiplied by a GHG Protocol emissions factor for mobile sources (v2.3), which assumed gasoline-powered vehicles manufactured after 2005.

## Renewable energy

KPMG's green power purchases are sourced from a variety of renewable energy technologies, are Green-e® Energy certified, and meet EPA Green Power Partnership and LEED® requirements. Renewable Energy Certificates are generated at U.S.-based projects that are geographically diverse and from specific and known solar and wind installations not older than 10 years. KPMG has made a commitment to 100 percent renewable energy by 2020.

## Solar energy

Solar electricity is generated by a KPMG-owned 500 kW solar installation at KPMG's Montvale, New Jersey, campus. No environmental benefits for solar energy generation are claimed by KPMG as the solar RECs were sold.

## Waste

Waste to landfill volumes are collected at an office-level based on invoices. Again, for offices in leased buildings shared with other tenants, separate invoices are often not available, and estimates were made for KPMG's waste volume based upon amount of floor space leased. Emissions are calculated based on most recent average emission factor for general municipal solid waste from the U.S. EPA Waste Reduction Model (WaRM).

## For more information, please contact

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## Paper

KPMG's annual paper consumption data derives from our procurement department and includes all type of paper consumed in our offices (such as letterheads, envelopes, business cards, printing, and report paper). It does not include the usage of paper by external vendors printing on KPMG's behalf. GHG emissions are calculated with help of an average emission factor for 100 percent virgin postconsumer paper composition deriving from the Environmental Defense Fund's Paper Task Force Report. KPMG's paper policy is 30 percent recycled content for general printer and copy paper; an emission factor for 100 percent virgin postconsumer paper is used as a conservative value.

## Shipping

We retrieve the total weight of KPMG's shipped items from our third-party vendors on an annual basis. When calculating emission levels due to freight transportation, an average transport distance of 630 km (390 miles) was assumed and KPMG applied an emissions factor from the GHG Protocol for domestic freight. The emissions factor assumes that all shipped items are transported via domestic freight transport using an unknown road vehicle type and unknown fuel source.

## FTE calculation

The FTE calculation is provided by the human resource department and excludes temporary employees, interns, in-patriates, and expatriates. The calendar-year FTE figure is the average ending headcount for the months between January and December.

## Other environmental data

In addition to the emissions data noted above, KPMG collects data on several other environmental performance indicators, including water consumption, video conferencing, and recycling. We expect to report on several of these additional environmental performance indicators in the future.

## Assurance

External assurance at the U.S. and global level was not obtained for the 2015 emissions data as reported. However, an internal assurance process was applied each year, consisting of an independent review of data by a national emissions collection team. In addition, KPMG conducted a separate internal assurance process performed by professionals from KPMG's Sustainability Advisory Services. We continue to evaluate the assurance process, including options for external assurance in the future.

## Baseline adjustments

Occasionally, the firm obtains more accurate information related to a prior year that was not previously available, and, where appropriate, we update prior-year information to represent the most accurate information. No baseline adjustments were made to the current 2010 baseline.