

# Time for deeds not words to reach emissions target, PwC study warns

CO<sub>2</sub> fall achievable if green energy use is speeded up

Top industrial nations need 80% cut by 2050

Ashley Seager

Severe adverse effects from climate change can be avoided at reasonable cost but only if politicians stop talking and start acting, a major report from PricewaterhouseCoopers says today.

Updating a study it conducted two years ago, it calls on leaders of the Group of Eight leading economies, particularly the United States – the world's largest per capita polluter – to commit themselves to firm timetables for emissions reductions at next week's summit in Tokyo.

It now estimates the cost of a 50% reduction in global carbon emissions by 2050 at around 3% of global economic growth, at the top of the 2-3% range it estimated in 2006.

"This is broadly equivalent to sacrificing around a year of global GDP growth between now and 2050," says John Hawksworth, head of macroeconomics at PwC.

PwC has raised its projections for the amount of carbon that would be released between now and 2050 because it now expects stronger economic growth in China and India over the next four decades.

It says the G7 countries (G8 minus Russia) need to cut their carbon emissions by 80% by 2050 to make their contribution to the 50% cut in global emissions.

It says the "E7" group of countries – China, India, Brazil, Russia Mexico, Indonesia and Turkey – can be allowed to continue increasing emissions, albeit at a slower rate, between now and 2020 and cut them beyond that date.

But they say politicians need to take action very soon. Hawksworth said: "We've heard a lot of talking but we are at the point when politicians need to

be specific about a number of concrete actions and hopefully something will emerge this year."

Richard Gledhill, head of climate change services at PwC, said: "Governments in all major economies must demonstrate their political will to establish a well functioning global carbon market that puts a price on carbon emissions. That will send the right economic signals to investors and consumers to deliver the new technologies and changes in behaviour required to combat global warming."

Hawksworth said the carbon price that would be needed to be set to encourage the switch away from carbon towards cleaner energy sources was around \$40 (£20) a tonne, close to where it is now.

"It does not need to go much higher than it is now to achieve the sort of carbon reductions we are talking about. But at the moment there is not the sort of long-term framework for this.

Hawksworth says that in addition to a carbon market, countries will need a combination of carbon taxes, regulation and government support to ensure that all parts of their economies are pushed towards a low carbon future.

PwC's report says that if nothing changes, global carbon emissions from energy use will double by 2050, raising to the concentration of CO<sub>2</sub> in the atmosphere to 600 parts per million (ppm) from 380 ppm now, with disastrous consequences.

PwC is nevertheless confident that significant carbon reductions are technologically feasible if the world makes a big move into renewable energy, hugely increases its energy efficiency and embarks on large-scale carbon capture and storage (CCS) to trap the emissions released by burning coal. It says combination of measures is affordable and necessary.

Hawksworth added that the costs of de-carbonising economies could even end up being lower than expected if technological advances speed up. He pointed to previous efforts to reduce ozone depleting chemicals and acid rain which ended up costing less than predicted.

The PwC report sees nuclear energy as potentially playing a role but does not see it as crucial. Similarly, it sees a role for bio-fuels but warns that this has to be balanced against the need for affordable food.

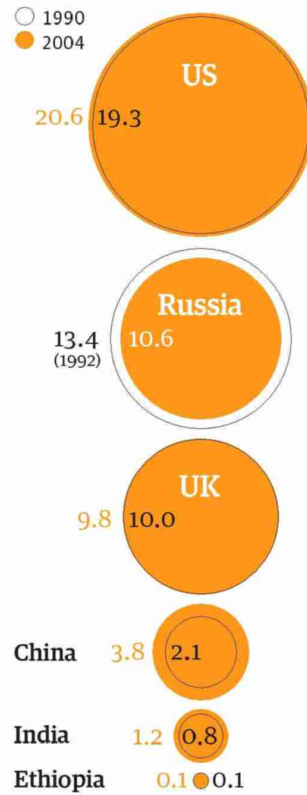
Hawksworth said high oil prices could accelerate a move away from oil and gas but he cautioned that the change it prompted had to be towards clean alternatives such as renewables rather than dirty options like coal and tar sands.

"The question is which way do you switch? There's a strategic question to answer about how you respond to this huge rise in the oil price."



## Global warming

CO2 emissions, tonnes of CO2 per person



SOURCE: ACTIONAID



Smoke stacks of a pulp mill in Canada. **PwC** estimates the cost of a 50% drop in carbon emissions by 2050 at 3% of global growth

Photograph: Aurora/Getty Images