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Countdown to
Copenhagen



Carbon emissions will fall 3% due to recession, say world energy analysts

Cut in greenhouse gas emissions provides countries with a unique chance to switch to less carbon-intensive energy sources, says International Energy Agency

John Vidal in Bangkok

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The 3% cut in emissions is the result of less industrial activity. Photograph: Charles O'Rear/Corbis

Man-made greenhouse gas emissions will drop 3% in 2009 largely because of the worldwide financial crisis, the [International Energy Agency \(IEA\)](#) said today.

Three-quarters of the reduction has been the result of less industrial activity, with the rest coming from countries turning to [renewable energy](#) and [nuclear power](#).

But the world's premier [energy](#) analysts calculated that to avoid dangerous [climate change](#), countries around the world will have to spend \$400bn a year building more than 350 new nuclear plants and 350,000 wind turbines in the next 20 years. They also estimate that by 2020, three-fifths of cars will need to use alternatives to the traditional internal combustion engine. The findings came in a [special extract](#) of the IEA's forthcoming annual world energy outlook report, published [at the UN climate talks in Bangkok](#).

The emissions cuts, only the fourth in the last 50 years, provide countries with a unique chance to switch to less carbon-intensive energy sources, said the [IEA's chief economist, Fatih Birol](#).

"Average growth in emissions has been 3% a year but we estimate this year that emissions will fall 3%. Because of the financial crisis, many industries have the chance to move away from unsustainable power. If we get a good result at the [Copenhagen](#)

climate talks, then they could be turned to sustainable energy," he said.

The independent agency, which is funded by the world's richest 28 countries, said it would be a catastrophe if countries continued with business as usual. "We need an energy and environment revolution. Business as usual would increase temperatures by 6C. To hold emissions to 450ppm [parts per million], we need in the region of 18 nuclear power stations, 17,000 turbines, 100 concentrated solar power stations and 16 carbon capture and storage plants to be built every year until 2030," said Birol.

"We think the share of renewables and nuclear which is now 18% worldwide needs to go up to 33% by 2030," he said. "But energy efficiency will be the key."

The energy revolution envisaged by the IEA would cost about \$400bn a year to fund between now and 2020, but it would cost far more to catch up with emission cuts later on, said Nobuo Tanaka, the director of the agency.

"The benefits will be that we avoid the worst implications of climate change which are unquantifiable. Everyone will also save money," he said.

Under the IEA's scenario of how the world could hold emissions to 450ppm, countries would have rapidly away from the internal combustion engine. "Ninety-five per cent of new cars today have internal combustion engines. To hold emissions to 450 [ppm] you need more and more hybrids and electric cars. By 2020, only 40% of cars should have internal combustion engines," it suggested.

For the first time, the agency estimated the costs to Opec oil-producing countries of a worldwide shift away from petrol and oil. With no deal at Copenhagen, it says, the industry could expect to earn about \$28tr between 2012 and 2030. But holding emissions to 450ppm would reduce the industry's revenue by 16% to \$24tr, said Birol.

"They would earn less, but it would still be four times more than they have earned in the last 22 years, he said. "Oil, coal and gas needs to peak at 2020 and then decline. Renewables, nuclear and CCS [carbon capture and storage] need to go up dramatically," said the report.

He said that the climate talks due to conclude in Copenhagen in December were fundamental to whether the world moved away from fossil fuels. "That requires signals. People do not invest in dirty power because they are bad but because of the money. Without an incentive signal from Copenhagen it will not change," he said.

"The IEA's report confirms what we already know – that every year's delay in climate action will significantly increase the costs," said Kaisa Kosonen, Greenpeace International policy analyst.

The assessment confirms that current industrialised country targets are not enough to drive energy efficiency and renewables on the scale needed.

It also confirms what Greenpeace's own scenario shows, that energy efficiency will play by far the biggest role in solving climate change - over and above any other technologies.

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