

## **Analysis: coal's rapid phase out essential, not enough to stay below 2°C warming**

Berlin—22 September 2014—A rapid phase out of coal as an electricity source by 2050 would reduce warming by half a degree, according to the Climate Action Tracker, in an update released today ahead of the Ban ki-Moon climate summit.

The Climate Action Tracker, put together by research organisations Climate Analytics, Ecofys, and the Pik Potsdam Institute, has calculated that under current Government policies, the world is on track to warm by 3.7degC by 2100.

The latest update looks at the effect of phasing out fossil fuels in the electricity sector. The CAT team ran a number of scenarios around phasing out fossil fuel emissions from the sector, which produces around 40% of global CO2 emissions.

The electricity sector needs to be decarbonised faster than other sectors, but instead is heading in the opposite direction, increasing carbon intensity and significantly driven by increased coal use, and making it one of the largest sources of recent carbon emission increases.

The CAT scientists calculated that rapidly phasing out coal by 2050 would bring down warming by 0.5°C.

“There is a particular urgency for Governments to reverse recent trends in the electricity sector, especially the increasing investment in coal, in order to focus the power industry on rapid greenhouse gas emission reductions,” said Climate Analytics Director Bill Hare.

“A major first step forward would be a strong political signal that the electric power sector needs to be decarbonised by 2050 - and that includes rapidly phasing out coal use.”

Under current Government policies, the CAT scenarios project emissions to exceed the 1000 gigatonne carbon budget (giving high probability of staying below 2degC of warming) by 3900 GtCO2. Phasing out coal emissions from the power sector by 2050 would reduce this exceedance by around 35% (more than 1400 GtCO2).

The CAT also investigated the possible role of gas, finding that a rapid phase out of gas would only make a difference of 0.1degC.

“Our coal-to-gas scenario shows that gas would be unable, long term, to provide the reductions in the electricity sector required to stay below 2°C. Instead, development of long-lived infrastructure may actually become a major obstacle for the full decarbonisation of the electricity sector that we need,” said Dr Niklas Höhne of Ecofys.

“Right now we are facing a real and present danger of a lock-in of a new energy sector infrastructure – including for gas-fired electricity generation,” said Höhne.

The CAT also found that switching from coal to gas would only achieve 25-45% of what could be obtained by the entire electricity sector switching to renewable energy.

Aside from slowing warming, a rapid phase out of coal would also bring multiple environmental and health benefits: in 2010, coal plants produced 24% of the world's mercury emissions and causes smog and severe health problems, particularly in densely populated areas.

**Ends**

Please go to <http://www.climateactiontracker.org> for the full update released today.

The Climate Action Tracker is an independent science-based assessment that tracks the emission commitments and actions of countries. It is a joint project of the following organisations:

### **Climate Analytics**

Climate Analytics is a non-profit organization based in Potsdam, Germany. It has been established to synthesize climate science and policy research that is relevant for international climate policy negotiations. It aims to provide scientific, policy and analytical support for Small Island States (SIDS) and the least developed country group (LDCs) negotiators, as well as non-governmental organisations and other stakeholders in the 'post-2012' negotiations. Furthermore, it assists in building in-house capacity within SIDS and LDCs.

[www.climateanalytics.org](http://www.climateanalytics.org)

### **Ecofys – Experts in Energy**

Established in 1984 with the mission of achieving “sustainable energy for everyone”, Ecofys has become the leading expert in renewable energy, energy & carbon efficiency, energy systems & markets as well as energy & climate policy. The unique synergy between those areas of expertise is the key to its success. Ecofys creates smart, effective, practical and sustainable solutions for and with public and corporate clients all over the world. With offices in Belgium, the Netherlands, Germany, the United Kingdom, China and the US, Ecofys employs over 250 experts dedicated to solving energy and climate challenges.

[www.ecofys.com](http://www.ecofys.com)

### **Potsdam Institute for Climate Impact Research (PIK)**

The PIK conducts research into global climate change and issues of sustainable development. Set up in 1992, the Institute is regarded as a pioneer in interdisciplinary research and as one of the world's leading establishments in this field. Scientists, economists and social scientists work together, investigating how the earth is changing as a system, studying the ecological, economic and social consequences of climate change, and assessing which strategies are appropriate for sustainable development.

[www.pik-potsdam.de](http://www.pik-potsdam.de)