

# EUROPE'S CLIMATE GAP

## The unspoken disconnect between climate science and EU action



If average global temperatures are allowed to rise by more than 2°C, the effects of climate change are almost certain to be devastating. The European Union has often repeated its commitment to this so-called 'safe' 2°C threshold. Yet what is less widely known is that EU leaders are assuming a 50/50 chance<sup>1</sup> of overshooting the 2°C limit<sup>2</sup> – no better odds than a coin toss.

Average temperatures have climbed 0.8°C around the world since pre-industrial times. The effects are already being felt. Extreme weather events such as the floods and wildfires we've seen in Europe, and megastorms like Hurricane Sandy in the US, are becoming more and more frequent<sup>3</sup>. Climate change is contributing to increasing social inequality within and between countries. World health experts have concluded that climate change already contributes to the global burden of disease and premature death<sup>4</sup>. Greenland's ice sheet is losing mass at about 300 km<sup>3</sup> per year, with potentially catastrophic consequences for sea level rises.

The EU's climate and energy policies do not measure up to the scale of the problem. Science is clear that action to stop climate change must be based on an assessment of the amount of greenhouse gas emissions which can be emitted without exceeding the threshold for dangerous temperature rises. For example, to stand an 80% chance of staying below 2°C the world must emit no more than 565 billion tons of carbon dioxide between now and 2050<sup>5</sup>. This equates to just 15 years of current global emissions. But the European Commission's emission reduction pathway to 2050 does not even mention this key 'carbon budget' concept.

Recent research led by James Hansen – one of the world's leading climatologists – warns that policies designed to meet the 2°C threshold are, in fact, likely to lead to devastating temperature increases of 3-4°C<sup>6</sup>. This is due to the previously underestimated inertia of the Earth's oceans which means that once warming reaches a certain level, the oceans continue to heat up the planet even if emissions decrease. The result would be runaway climate change and chaos for people across the globe. But despite this the EU is continuing to work on the basis of a 50/50 probability of staying below 2°C.

## 'EU leaders have covertly decided to work on the basis of a very high risk of exceeding 2°C global warming'

1 EU Climate Change Expert Group 'EG Science' (2008) *The 2°C target Information Reference Document*.

2 European Commission (2011) *A Roadmap for moving to a competitive low carbon economy in 2050*.

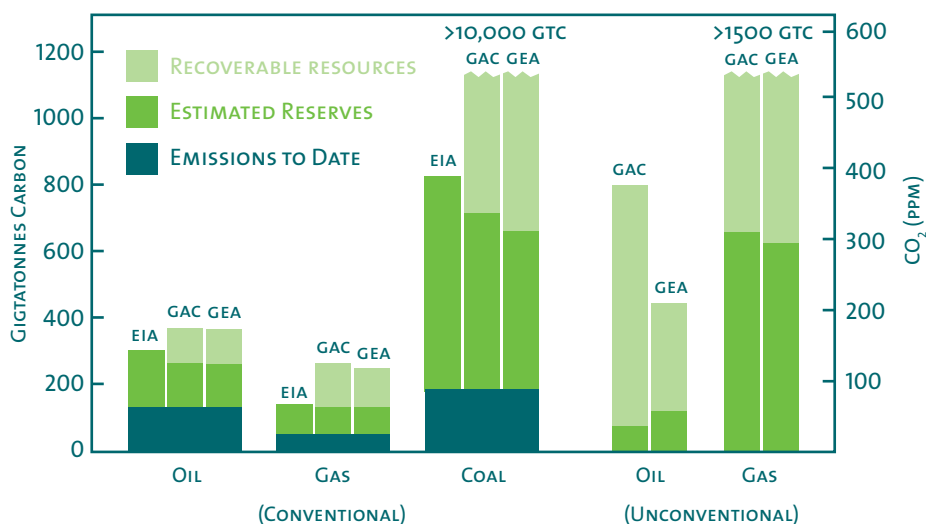
3 Hansen J, Sato M, Ruedy R (2012) *Perception of climate change*. Proc Natl Acad Sci USA 109: 14726-14727.

4 Intergovernmental Panel on Climate Change (2007) *Climate Change 2007: Impacts, Adaptation and Vulnerability*. Parry, ML, Canziani O, Palutikof J, van der Linden P, Hanson C, editors. Cambridge.

5 Meinhausen et al. (2009) *Greenhouse-gas emission targets for limiting global warming to 2°C*. Data adjusted for the 2010-2050 period.

6 Hansen et al (2013) *Scientific case for avoiding dangerous climate change*.

## PAST FOSSIL FUEL EMISSIONS ARE A FRACTION OF THE EMISSIONS CONTAINED IN UNRECOVERED RESOURCES



Hansen et al (2013) using data given by Energy Information Administration (EIA), German Advisory Council (GAC), and Global Energy Assessment (GEA).

### ‘There is a frightening disconnect between the science of climate change and EU action’

7 Carbon tracker (2013) *Unburnable carbon 2013: Wasted capital and stranded assets.*

8 Ecofys (2013) *Saving Energy: Bringing down Europe’s energy prices for 2020 and beyond*

9 Euractiv (April 2013) *EU’s chief science advisor gives shale gas go-ahead.*

10 40% below 1990 levels. By contrast the EU has set a target of reducing emissions by 20%.

11 80% below 1990 levels. The European Commission is currently working on the basis of 40% cuts. For details on the 80% target see Friends of the Earth (2010) *Reckless Gamblers*. The technical feasibility of 60% cuts was demonstrated by the Stockholm Environment Institute (2009) *Europe’s share of the climate challenge.*

12 According to 2012 research by Fraunhofer ISI for the German Environment Ministry, the EU could reduce its energy consumption by 50% by 2030 compared to 2005 levels. *Concrete Paths of the European Union to the 2°C Scenario: Achieving the Climate Protection Targets of the EU by 2050 through Structural Change, Energy Savings and Energy Efficiency Technologies.*

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The maths of climate change is chillingly simple. The amount of carbon dioxide which can be safely emitted into the atmosphere is about four times less than the emissions contained in currently indicated fossil fuel reserves<sup>7</sup>.

An honest risk assessment of the EU’s climate and energy policies can have only one conclusion: the rapid replacement of fossil fuels with renewable energies and energy efficiency (research group Ecofys predicts net direct savings of €250 billion per year if ambitious energy savings are pursued<sup>8</sup>). Yet President Barroso’s chief scientific adviser has just given the go-ahead to the extraction of more fossil fuels in the form of shale gas drilling<sup>9</sup>.

There is a frightening disconnect between the science of climate change and the action the EU is taking to address it. EU leaders have covertly decided to work on the basis of a very high risk of exceeding 2°C – despite having full knowledge of the devastating implications of runaway climate change for people and the planet. This is at a time when scientific assessments of the impacts of climate change underpin increasing pressure for a more stringent temperature target of 1.5°C or less.

#### A drastic, bold shift in risk assessment and policy-making is required.

##### Friends of the Earth Europe is calling for:

- An increase of the EU’s 2020 greenhouse gas emissions target to at least 40%<sup>10</sup>, and corresponding increases to the EU’s energy savings and renewables objectives.
- Three binding targets for 2030 to cut the EU’s greenhouse gas emissions by at least 80%<sup>11</sup>, reduce energy consumption by 50%<sup>12</sup> and markedly increase renewable energies.
- Policies that favour the technological winners that are energy savings and renewables, not false solutions such as nuclear, shale gas and unsustainable biomass.
- The encouragement of investment in solutions that will cut Europe’s emissions at the rate and scale science tells us is needed, and also create decent jobs, reduce inequalities, improve energy security and save money for consumers and businesses alike.

Read more at [www.foeeurope.org/2030-climate-plan](http://www.foeeurope.org/2030-climate-plan)  
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