



# Including aviation in the EU Emissions Trading Scheme – an estimate of the potential windfall profit

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## BACKGROUND

Globally, aviation accounts for approximately 4 to 9 percent of the climate change impact of human activity<sup>1</sup>. In the EU it is higher – currently standing at between 5 and 12 percent<sup>2</sup>. Indeed the EU accounts for approximately half of the carbon dioxide (CO<sub>2</sub>) emissions from international aviation reported by developed countries<sup>3</sup>.

Because aviation is the fastest growing source of greenhouse gas emissions the lack of political action to address the sector can no longer be justified. It was therefore a welcome move, when in September 2005 the European Commission outlined their intention to bring forward a legislative proposal to include the climate impact of the aviation sector in the EU Emissions Trading Scheme (EU ETS)<sup>4</sup>.

However, contrary to the claims of some aviation industry bodies that the inclusion of the sector in the scheme would harm profits<sup>5</sup> - there is actually the potential, if free allocation of allowances remains the norm, for airlines to make enormous windfall profits from the scheme.

## HOW WINDFALL PROFITS COME ABOUT

In phase I (2005-2007) and phase II (2008-2012) most of the allowances<sup>6</sup> allocated to participants in the EU ETS will be given out for free. However, allowances have a price associated with them and can be bought and sold. Currently the price of a phase I allowance is around €7 – although earlier this year it was over €30<sup>7</sup>.

Companies which are not subject to competition from outside the EU<sup>8</sup> can therefore decide whether, and to what extent, they will pass on the price of an allowance to the price of the

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<sup>1</sup> A figure of 3% or less is often cited by the aviation industry but this only takes into account carbon dioxide (CO<sub>2</sub>) emissions. The climate impact of aviation is actually two to five times higher than the impact of CO<sub>2</sub> alone e.g. this includes the impact of nitrogen oxide emissions and condensation trails.

<sup>2</sup> 'Clearing the Air – the myth and reality of aviation and climate change' T&E, 2006.

<sup>3</sup> 103,411 of 202,779 MtCO<sub>2</sub>e – 2002 data as reported by Annex I parties to the UNFCCC.

<sup>4</sup> COM(2005) 459, 27.9.2005 Reducing the Climate Change Impact of Aviation.

<sup>5</sup> 'Carbon permits 'threaten European airline profits'' by Andrew Bounds, Financial Times, 29 November 2006.

<sup>6</sup> One allowance allows a participant to emit 1 tonne of CO<sub>2</sub>.

<sup>7</sup> Verified data of emissions from participants in 2005 (released in Spring 2006) showed that there had been a massive over-allocation of allowances in phase I causing demand to dry up and the price to plummet.

<sup>8</sup> E.g. they don't need to cap the price of their product at levels outside of the EU in order to remain competitive.

product they are selling. The revenue accrued from the pass through of the value of the allowances that have been given for free is therefore a windfall - because the price of the product has gone up without any real increase in the cost to the participant in the scheme.

For example a Carbon Trust report<sup>9</sup> estimated that the UK electricity industry had made approximately €1 billion in the first year of trading. Other countries such as Germany and Holland have also reported windfall profits in this sector<sup>10</sup>.

Since it is likely that the EU ETS will cover all aircraft operators on specific routes there will be no competition from operators not covered by the scheme. As a result, and similar to the experience with the electricity industry, aircraft operators could be expected to be able to seek to pass on the full cost of an allowance to passengers (via an increase in ticket prices).

## **THE AVIATION SECTOR – ESTIMATE OF WINDFALL PROFITS**

WWF has estimated the value of the windfall profit that could be made by the aviation sector in 2011 if it receives most of its allowances for free. The estimate is based on the following assumptions:

- that the aviation sector enters the scheme in phase II (likely to be in 2011);
- that the scheme is open e.g. the aviation sector has access to non-aviation allowances;
- irrespective of whether allowances are received for free or have to be bought - the cost of each allowance is passed on in full to consumers via an increase in ticket prices;
- all departing flights in the EU are included in the scheme;
- aviation's annual allocation in phase II equals 100% of the emissions from all flights departing EU25 in 2005 (approximately 132 million tonnes of CO<sub>2</sub><sup>11</sup>);
- aviation receives 90% of its allowance allocation for free in phase II;
- the price of an EU allowance in phase II is between €20 and €30; and
- that there is no significant reduction in demand as a result of including aviation in the ETS.

In 2011, the aviation sector would therefore receive approximately 118.8 million free allowances. An estimation of the value of the pass through of the free allocation and hence the windfall profit can therefore be made by multiplying the number of free allowances by the value of an allowance (estimated here to be between €20 and €30). This equals approximately **€2.38 and €3.56 billion per year. This figure is in line with previous estimates in a study undertaken on behalf of the Commission**<sup>12</sup>. If all arriving flights, as well as all departing,

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<sup>9</sup> 'Allocation and competitiveness in the EU Emissions Trading Scheme – options for phase II and beyond' The Carbon Trust, June 2006.

<sup>10</sup> e.g. see 'CO<sub>2</sub> trading and its influence on electricity markets' Final report for DTE by frontier economics (February 2006)

<sup>11</sup> EUROCONTROL 2006

<sup>12</sup> 'Giving wings to emissions trading – inclusion of aviation under the European emission trading system (ETS): design and impacts' CE Delft for the European Commission, July 2005. This report estimated that the windfall profits were likely to be in the order of €1.34 - 4 billion per year (assuming an EU allowance price of between €10 and €30 per tonne of CO<sub>2</sub>, that the sector were to receive all of its allowances for free and that it passed on the opportunity cost in full to the ticket price).

flights were included in the scheme but the sector continued to receive most of its allowances for free then the windfall profit would be even greater.

## **LIKELY IMPACT ON TICKET PRICES**

Even assuming the full pass through of costs (which would occur regardless of whether allowances are received for free or not) - the actual rise in ticket prices as a result of including aviation in the ETS is likely to be minimal and will have little impact on reducing the rapid growth in emissions from this sector. According to media reports covering the leaked draft of the proposal the scheme would only, by 2020, and depending on the distance covered, raise ticket prices for a return trip by €4.6 (short haul) to €39 (long haul)<sup>13</sup>.

To put this into context – the real cost of flying has fallen dramatically over the last 20 years. For example the average fare for a short haul leisure flight paid by a UK passenger in the mid 1980's was around £150 (€223). By 2004 this had fallen to approximately £63 (€94). Over roughly the same time period the cost of a long haul flight fell from £600 (€893) to £260 (€387)<sup>14</sup>. At a European level, and even when the impact of low-cost carriers is excluded, air transport is now approximately 28% cheaper than it was 13 years ago<sup>15</sup>.

## **CONCLUSIONS AND RECOMMENDATIONS**

It is unacceptable that a scheme which is meant to deliver CO<sub>2</sub> reductions could actually allow emissions from aviation continue to rapidly grow whilst allowing the sector to massively increase its profits at the same time.

In order to address these concerns WWF recommends that:

- a robust cap is set which will deliver an absolute reduction in emissions from a fixed historical baseline;
- the sector should be required to buy 100% of its allowances at auction. A weak cap, combined with a low level of auctioning would simply increase the windfall profits for the aviation sector;
- the scheme should maximise coverage and include all flights to and from EU airports;
- during the period 2008-2012 a separate emissions trading scheme is established for the aviation sector; and
- with regards to access to project credits – the sector should only be allowed to buy credits from Gold Standard<sup>16</sup> certified projects to aid compliance with the scheme and the quantitative limit set should be set at a level which is considerably less than 50% of the total effort.

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<sup>13</sup> 'EU wants cap on airline emissions as of 2011' EurActiv.com, 15 November 2006, <http://www.euractiv.com/en/transport/eu-wants-cap-airline-emissions-2011/article-159741>

<sup>14</sup> 'Predict and Decide – aviation, climate change and UK policy' Environmental Change Institute, University of Oxford, 2006.

<sup>15</sup> 'Clearing the Air – the myth and reality of aviation and climate change' T&E, 2006.

<sup>16</sup> The Gold Standard is an independent, transparent, internationally recognised benchmark for 'high quality' carbon offset projects. See <http://www.cdmgoldstandard.org>

We would also emphasise that inclusion of aviation in the EU ETS should be developed, not in isolation, but as part of a complementary package of policies and measures. These could include nitrogen oxide emission charges, an increase in air passenger duty, taxation of aviation fuel, the immediate ending of VAT exemption and improved air traffic management systems.

A position paper further outlining our key recommendations is available at [http://www.wwf.org.uk/filelibrary/pdf/wwf\\_position\\_statement\\_aviation.pdf](http://www.wwf.org.uk/filelibrary/pdf/wwf_position_statement_aviation.pdf)