

# **Including Aviation in the EU's Emissions Trading Scheme (EU ETS)**

**Background Briefing**

**Updated June 2008**



**European Federation for  
TRANSPORT and ENVIRONMENT**

## Aviation and climate change: facts and figures<sup>1</sup>

- In 2000 air transport accounted for 4 to 9 per cent of the climate change impact of human activities. The range reflects uncertainty surrounding the effect of cirrus clouds. A figure of 2 per cent, often quoted by the aviation industry, applies only to CO<sub>2</sub> emissions and refers to 1992 data.
- Carbon Dioxide (CO<sub>2</sub>) emissions from EU international aviation increased by 90% between 1990 and 2005<sup>2</sup>.
- If this trend continues, growth in the EU's international aviation emissions will offset more than a quarter of the reductions required by the Community's target under the Kyoto Protocol<sup>3</sup>.
- Aviation has by far the greatest climate impact of any transport mode, whether measured per passenger kilometre, per tonne kilometre, per € spent, or per hour travelling
- CO<sub>2</sub> emissions are directly linked to fuel consumption. Every litre of jet fuel burnt leads to 2.5 kg of CO<sub>2</sub> emitted in the air. Today's passenger aircraft are no more fuel-efficient than those that flew half a century ago
- Every segment of the aviation industry including manufacturers, airlines and airports is subsidised and enjoys major tax exemptions (notably the lack of VAT on international tickets and taxes on kerosene)

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1 For further information see: Clearing the air, the myth and reality of aviation and climate change, T&E / CAN-Europe, Brussels, July 2006

<http://www.transportenvironment.org/Article201.html>

2 EEA, Annual European Community greenhouse gas inventory 1990–2005 and inventory report 2007, Submission to the UNFCCC Secretariat, European Environment Agency, Copenhagen, June 2007

3 European Commission, Communication on Reducing the Climate Change Impact of aviation, September 2005

# The EU and aviation emissions trading: timeline

## **September 2005**

### **Commission communication**

The European Commission published a communication, 'Reducing the climate change impact of aviation' which stressed that:

- there is a need for action
- inclusion of emission trading into the European Emissions Trading System (EU ETS) is the most feasible way forward
- all flights departing from EU airports should be included
- the non-CO<sub>2</sub> impacts of aviation should be reflected in the policy
- there is a need to keep all other options open (for example kerosene taxation)

## **December 2005**

### **Environment Council**

In the last month of the UK presidency of the EU, the 25 EU environment ministers adopted conclusions that were broadly supportive of the Commission communication.

## **July 2006**

### **European Parliament report**

The European Parliament adopted a resolution stressing that:

- a broad package of measures is necessary to tackle the climate change impact of aviation, including EU-wide kerosene taxation.
- a separate, dedicated emissions trading system for aviation should be set up

## **December 2006**

### **European Commission legal proposal**

The legal proposal adopted by the European Commission on 20 December 2006 favours the inclusion of aviation in the EU ETS.

## **November 2007**

### **European Parliament plenary voted on its report on the Commission proposal**

## **December 2007**

### **Member State environment ministers (Environment Council) agreed on a common position on the Commission proposal**

The European Parliament and Council did not manage to agree on a number of issues. Consequently there was a need for a 'second reading', i.e. the process will re-start at both institutions in order to foster an agreement.

## **May 2008**

### **The European Parliament Environment Committee discussed the Council Common Position and proposed a set of amendments.**

## **June 2008**

'Triologue' meetings take place, in which representatives of the Council, the European Parliament and the European Commission will try to get an agreement to adopt the Directive.

## Inclusion of aviation in the EU ETS: key issues

In the table below the key elements of the Commission's proposal are given, together with the Council Common Position adopted in December 2007 and Parliament's position in May 2008. The position of T&E and environmental NGOs<sup>4</sup> is also given.

A fuller explanation of the main points is given below the table.

		<b>European Commission legal proposal December 2006</b>	<b>European Council Common Position (December 2007)</b>	<b>European Parliament Report (May 2008)</b>	<b>T&amp;E position</b>
<b>Ensuring inclusion of aviation in the EU-ETS results in emissions reductions from the aviation sector</b>		Aviation sector should be integrated into the existing EU emissions trading system with open trading permitted between airlines and other sectors.	Same as the Commission Proposal	Restrict the number of Allowances that aircraft operators can buy from other sectors or from CDM/JI.  Only aircraft operators that improve their efficiency at a given rate are allowed to buy from other sectors.	It is essential that the inclusion in the EU ETS will incentivise emission cuts in the aviation sector. NGOs support the Parliament proposals that ensure at least some emission cuts will occur within the aviation sector.
<b>The emissions cap</b>	<b>First Period (2011-2012)</b>	2004-6 average. Equivalent to 90% above 1990 levels. (Approx. 220 MT CO <sub>2</sub> )	Same as the Commission Proposal.	90% of 2004-6 average. Approx (198 MT CO <sub>2</sub> )	In line with Kyoto targets for other sectors, i.e. 8% below 1990 levels. (Approx. 101 MT CO <sub>2</sub> )
	<b>Subsequent periods (2013 onwards)</b>	Cap should not be changed (stay at 2004-2006 levels)	Cap should be revised in 2015, as part of a general review of the (aviation) Directive	Cap should be revised in a linear manner to the overall reduction target applicable to the emissions covered by the Emissions Trading Scheme (i.e. same as other sectors)	The cap for aviation should be revised taking into account the EU climate targets (i.e. Reducing it to levels of -30% below 1990 levels).

<sup>4</sup> For more information on the position of a coalition of environmental NGOs please consult the position paper:  
[http://www.panda.org/about\\_wwf/where\\_we\\_work/europe/what\\_we\\_do/epo/initiatives/climate/publications/index.cfm?uNewsID=135041](http://www.panda.org/about_wwf/where_we_work/europe/what_we_do/epo/initiatives/climate/publications/index.cfm?uNewsID=135041)

		<b>European Commission legal proposal December 2006</b>	<b>European Council Common Position (December 2007)</b>	<b>European Parliament Report (May 2008)</b>	<b>T&amp;E position</b>
<b>Permit Allocation</b>	<b>First Period (2011-2012)</b>	Aviation should have as much auctioning as the average of other sectors in the EU ETS (estimated at 3% auctioning)	10% auctioning of permits.	25% auctioning of permits.	100% auctioning of permits.
	<b>Subsequent periods (2013 onwards)</b>	Aviation should be treated as energy intensive industrial sectors: auctioning should start as 20% in 2013 and go up to 100% in 2020.	The percentage to be auctioned may be increased as part of the general review of this Directive (i.e. similar to the Commission Proposal).	The percentage to be auctioned shall be increased, according to the maximum level of auctioning in other sectors (i.e. 100% as the Commission proposed for the power sector).	100% auctioning of permits.
<b>Non-CO2 impacts of aviation</b>		Emissions of other gases to be addressed by the end of 2008.  Climate impact of cirrus clouds and contrails not addressed.	Same as the Commission Proposal.	2x emissions multiplier to account for impact of NOx in case the Commission fails to introduce a specific NOx instrument.  Climate impact of cirrus clouds and contrails should be addressed by a multiplier when scientific understanding of these impacts improves.	2x – 5x emissions multiplier to account for non CO2 impacts of aviation on climate change.
<b>Geographic scope and Starting Dates</b>		Intra-EU flights in 2011. All flights arriving and departing EU airports in 2012.	All flights from 2012.	All flights from 2011.	All flights from 2010.
<b>Need for additional measures</b>		No reference (apart from instrument to deal with NOx emissions)	No reference (apart from instrument to deal with NOx emissions)	Need for implementation of Single European Sky and continue funding research. This Directive should not prevent Member States from maintaining or establishing parallel policies or measures to address the aviation impacts on climate.	Complementary measures are needed, as for example full implementation of the Single European Sky, emission standards for aircrafts or kerosene taxes.

## Ensuring emissions reductions from the aviation sector

All the impact assessments currently on the table show that integrating aviation into the EU-ETS will do next to nothing to reduce aviation emissions. Even an assessment by Ernst & Young commissioned by the aviation industry shows that even in the toughest scenario envisaged, by 2020 emissions would **grow** by 83% rather than 86% in a business-as-usual situation. Last March, European leaders committed to **reduce** emissions at least by 20% by 2020. The Commission's Impact Assessment suggests that integration of aviation into the EU-ETS policy will only reduce aviation emissions by about 3%. In other words it would offset just one year's growth of the sector's emissions.

The reason why integration in the ETS will not change the emissions of the sector is that the CO<sub>2</sub> prices in the system will be around €15 per tonne, which is a significant amount for powerplants, steel mills and the like, but translates into an insignificant 3.8 cents per litre of kerosene (the fuel used in aircraft). However, the aviation industry has set itself an objective to improve fuel efficiency by 50% by 2020 compared to 2000 (3.5% per year). But the European Commission proposal contains no guarantees that the sector will actually deliver these improvements.

Therefore, T&E supports the amendments from the European Parliament to insert provisions in the emissions trading Directive to ensure at least some reductions in the aviation sector emissions. **T&E welcomes the idea that the sector's fuel-efficiency objective should be made legally-binding to ensure that at least feasible improvements are made.** It is also important to **restrict the number of non-aviation allowances that can be bought** to give a sign to the industry that they should work towards a low carbon future.

## The emissions cap

The level of the cap proposed by the European Commission - average emissions from aviation in the years 2004-6 – in practice means that the cap is set at 90% above 1990 levels, the base year of the Kyoto agreement. Other sectors have to reduce their emissions by 8% compared to 1990 emissions. Aviation therefore would get roughly twice the amount of permits compared with other sectors.

Environmental NGOs had recommended a cap in line with other sectors but this approach was not supported by the European Parliament and Council. However, the European Parliament is still in favour of a cap that reduces the amount of permits compared to 2004-2006. We believe that Member States should be ready to agree with the Parliament on this lower cap, particularly if they want to show EU's leadership in fighting Climate Change.

In January 2008 the Commission Proposed a review of the general ETS Directive that envisages to comply with the targets defined by Heads of State to cut EU emissions by 20% up to 2020. In this Proposal the cap for sectors in the EU ETS experience a reduction of 1.74% per year. The European Parliament is in favour that this reduction also applies to aviation. **NGOs clearly support the need to ensure that aviation does not benefit from a special treatment compared to other sectors in the EU ETS and though its cap should also be revised likewise.**

## Permit allocation and windfall profits

Auctioning is the best distribution mechanism, because it is the most efficient and fairest way to issue permits, and also to avoid the errors of the current EU ETS where electricity firms are reported to have made billions of euros of windfall profits by passing on the price of permits to customers that they received for free. The aviation industry would follow this precedent.

The proposal from the European Commission proposes an allocation through benchmarking with a minor fraction to be auctioned (less than 3% in practice).

According to the Commission impact assessment: 'since every airline on each route covered by the scheme would be treated equally, airlines can be expected to pass on, to a large extent or even in full, compliance costs to customers'. The size of these profits has been estimated to be in the in the range of €3.5bn a year.

Both the European Parliament and Council recognized the need to have more auctioning since the onset and that is a welcome move. However, the most important step at this stage is to ensure fairness in the allowance distribution for the post-2012 period. The Commission recognized that industries that can pass-through climate costs and are not subject to carbon leakage should get all permits through auctioning. There is great consensus that the aviation industry is in these circumstances. Given this, **it is key to ensure that in this period aviation will have as higher levels of auctioning as the maximum level of auctioning in other sectors in the EU ETS.**

## Non-CO<sub>2</sub> impacts

There is a scientific consensus that the climatic impact of the sector is 2 to 5 times that of CO<sub>2</sub> emissions alone<sup>5</sup>. The uncertainty is related to the climate impact of cirrus clouds that can form out of aviation-induced contrails.

If non-CO<sub>2</sub> impacts are not addressed, the environmental integrity of the system is at risk. Airlines will be buying permits to emit a tonne of CO<sub>2</sub> from ground sources, but in practice the impact of the use of such allowance will be 2 to 5 times greater.

**T&E supports the Proposal from the European Parliament to apply a multiplier to account for NOx emissions until a specific instrument to address these emissions is in place.** A multiplier to take account of other climate impacts of aviation should be introduced immediately, based on the provisions of the precautionary principle and until measures to cope with those impacts are in place.

## Geographic scope and starting date

The European Commission proposed a two-stage approach, with intra-EU flights to be included in a first stage – starting in 2011 – and all arriving and departing flights to be added only in a second stage – in 2012.

There are no technical or legal reasons to apply the system only to intra-EU flights. Indeed the Commission's Impact Assessment<sup>6</sup> recommends the opposite: a broad

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5 See Sausen et al., 2005, Aviation Radiative Forcing in 2000: An Update of IPCC (1999), Sausen, R., Isaksen, I., Grewe, V., Lee, D.S., Myhre, G., Schumann, U., Stordal, F. and Zerefos, C., June 2005

6 Available at [http://ec.europa.eu/environment/climat/pdf/ia\\_aviation.pdf](http://ec.europa.eu/environment/climat/pdf/ia_aviation.pdf)

geographical scope would be better for the environmental effectiveness of the scheme while reducing to nearly zero any effects on the competitiveness of European airports and EU tourist destinations.

For that reason environmental NGOs have argued for all flights from and to the EU to be included from the onset.

Regarding the starting date NGOs think it is crucial to include aviation in the EU ETS as soon as possible. Climate Change needs to be urgently addressed and aviation is currently the fastest growing source of emissions. We believe aviation should be included in the EU ETS in 2010. However, the Commission and the European Parliament seem to agree that 2011 is a feasible starting date, which should not be postponed any further.

### **Additional instruments**

The price of permits in the EU ETS has historically been in the range of €15 per tonne of CO<sub>2</sub> – which is equivalent to 3.8 cents per litre of kerosene. The Commission's Impact Assessment suggests that this will reduce aviation emissions by only 3%, less than a year's growth of emissions.

Fuel taxes in road transport are around 65 cents per litre – more than 10 times higher than equivalent CO<sub>2</sub> prices in the EU ETS. Also, high carbon prices in aviation would not put the EU aviation industry at a competitive disadvantage since every airline on each route covered by the scheme would be treated equally. Therefore, environmental NGOs insist on introduction of fuel taxation and VAT on airline tickets alongside integration of aviation into the EU ETS.

## **For further information:**

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