

Main thematic area: Economics/Science/Technology

Cost: £/££/£££

AIR-ETS: Aircraft emissions trading

Emissions impacts

The impact of emissions on the environment has reached a new level of urgency. Growth projections for global air travel suggest a 300% growth in passenger km by 2030. It is generally recognised that this level of growth can not be offset by improvements in aircraft emissions through technology and operations alone. This pressure is likely to require even greater reduction in emissions from other industrial and end user sectors.

Emissions trading

The main market policy currently being considered to address the climate impacts of aviation development is that of emissions trading; in particular the inclusion of the aviation sector in the EU emissions trading scheme (ETS). Emissions trading schemes are a means of capping total carbon emissions from all polluters including heavy industry, manufacturing and power generation. Participants trade emissions allowances according to ability or inability to treat carbon within their respective growth profiles – the aviation industry is likely to be a net purchaser. The EU has recently published proposals for the inclusion of intra EU flights in the EU ETS from 2011 and all flights originating in or departing from EU airspace in 2012. However, there has been little analysis of aviation in the EU ETS.

Project aims

This project will study the possible impacts on the aviation industry and general economic activity of including the aviation sector in the EU ETS. The starting point is the EU Commission proposal for including aviation in the EU ETS.

Scenarios

A wide range of scenarios will be studied, in order to determine the conditions under which the inclusion of aviation in the EU ETS might lead to technological change in the

aviation industry towards higher energy and emissions efficiencies.



Effects upon competitiveness and cost to the traveller will be examined as well as the relationship between the aviation sector and the emissions permit market.

Inclusion of aviation in the ETS could have impacts on macroeconomic demand and upon employment and it will be necessary to assess the impact of an emissions trading scheme that is effective in reducing emissions on industrial output and employment. A large scale macroeconomic model, the first of its kind, will be developed to model aviation in the EU ETS and examine scenarios which will result in emissions reductions.

Benefits

This project will provide policy relevant information for both governments and industry. Given the EU commission proposals, the next few years will see a continuing debate about whether, how and when to implement emissions trading for aviation. A wider range of analysis and scenarios than is currently available is vital in order for realistic policy assessments to be made of the effects of including aviation in the EU ETS in the medium and long run.

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