THOMSON AIRWAYS CARBON SAVINGS

1. Brief details of the initiative and the changes made – this may be a change in technology, of fuel, operating procedures or behaviour.

Over the past few years, Thomson Airways has really focussed on improving its environmental performance, especially focussing on its carbon efficiency – one of the main impact areas of operating an airline. The focus of this case study relates to our 2014 financial year as the full scale of the activity and achievements from our 2015 financial year are still being assessed.

These carbon savings have been achieved through a mixture of operational efficiencies, addressing and adjusting our on-board operations, direct routings for our aircraft, associated maintenance activities and investment in cutting edge aviation technology – both at the point of manufacture as well as engineering retrofits – some examples include:

- Investment in new aircraft e.g. the Boeing 787 Dreamliner which emits around 20% less CO\textsubscript{2} per passenger kilometre than comparable aircraft [the Boeing 767, which it replaces] – Thomson Airways, was the UK launch customer of the Dreamliner aircraft in May 2013
- Fuel-saving blended winglets fitted to our aircraft, reducing fuel burn by up to 5% - these help the aircraft improve lift and reduce drag helping to boost efficiency
- Thomson Airways, as part of the TUI Group was the European launch customer for a new innovative Split Scimitar Winglet in May 2014 - an engineering retrofit yielding an additional c. 1.5% fuel saving – the typical annual savings are estimated at c. 200 tonnes of fuel and more than 600 tonnes of carbon dioxide per aircraft.
- Operational efficiencies such as single engine taxiing when landing, continuous descent operations for smoother approaches and optimised flight planning contributing to noise, fuel and carbon reductions
- Reducing weight on our aircraft through lighter catering trolleys and seats and optimising the amount of products we carry on board
- Maintenance efficiencies such as engine wash programmes, lighter paint, and surface sealant applications that reduce drag on the aircraft by stopping dirt and grime adhering to it and which incrementally improve fuel and carbon efficiency
- Implementation of an enhanced fuel monitoring and management system, a piece of software that highlights how effective operational practices are working and helps an airline prioritise potential improvements
- Implementation of ISO 14001– Thomson Airways was the first airline in the UK to achieve certification covering the whole airline in 2013
- In 2011, we were the first UK airline to fly passengers using sustainable biofuel

2. The increase in carbon efficiency or reduction in emissions which may be reported in fuel burnt per unit of output or the actual emissions reduction.

Over the past four financial years, we have improved our airline carbon efficiency by more than 10%, achieving an average carbon emission figure of 64.8g of carbon dioxide per Revenue Passenger Kilometre (RPK) and in FY13 & FY14, our Group Airlines had their reported numbers individually audited by PwC.

Furthermore, Thomson Airways has saved more than 100,000 tonnes of carbon dioxide emissions as a direct result of the fuel conservation programme bringing down its carbon footprint.

3. The payback period i.e. the number of months of operation to achieve costs savings equivalent to the investment.

The exact amount our business has invested in new technology and retrofitting winglets, for example, is substantial - but obviously commercially confidential. Other investment relates to time and effort from colleagues across the airline. Between FY09 – FY14, Thomson Airways identified savings as a result of fuel conservation activities from the various initiatives outlined above across our airline.

4. The company/individual names for acknowledgment

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