

**Senate Standing Committee on Environment and Communications
Legislation Committee**
Answers to questions on notice
Environment portfolio

Question No: 93
Hearing: Additional Estimates
Outcome: Outcome 2
Programme: Climate Change and Renewable Energy (CCARE)
Topic: International shipping and aviation sectors growth
Hansard Page: N/A
Question Date: 16 February 2016
Question Type: Written

Senator Abetz asked:

Is it acknowledged that the international shipping and aviation sectors have grown 80 per cent between 1990 and 2010?

- a) If not, by how much has it grown?
- b) Are these sectors projected to grow even further?
- c) If so, by how much by the year 2050?
- d) Or any other suitable time delineation?

Answer:

a) In terms of growth in greenhouse gas emissions and based on data available from the International Energy Agency (IEA) on carbon dioxide emissions from global international aviation and shipping¹, the statement is correct (table 1 refers). Carbon dioxide emissions account for approximately 99 per cent of greenhouse gas emissions from international aviation and shipping.

Table 1

International Bunkers Emissions million tonnes carbon dioxide	1990	2010	% Increase
Marine	371.5	667.2	80%
Aviation	258.8	459.8	78%
Total	630.3	1127	79%

b) Based on the data available from IEA's *World Energy Outlook 2015* report, emissions from global international aviation and shipping are projected to grow in 2020 under three different scenarios (New Policies, Current Policies and 450 Scenario). The 450 Scenario depicts a pathway to the 2 °C climate goal that can be achieved by fostering technologies that are close to becoming available at commercial scale. This report is publicly available and can be accessed from IEA's website at, <http://www.worldenergyoutlook.org/weo2015/>

¹ CO₂ Emissions From Fuel Combustion Highlights 2015 report, <http://www.iea.org/publications/freepublications/publication/co2-emissions-from-fuel-combustion-highlights-2015.html>

Emissions from international bunkers are projected to grow from 1,102 Mt CO₂-e in 2013 to be 1,222 Mt CO₂-e under the Current Policies Scenario, 1,199 Mt CO₂-e under the New Policies Scenario and 1,145 under the 450 Scenario in 2020.

c) The *World Energy Outlook 2015* provides global emissions trends to 2040 only.

d) Emissions from the sector are projected to be 1,743 Mt CO₂-e under the Current Policies Scenario, 1,553 Mt CO₂-e under the New Policies Scenario and 1,088 under the 450 Scenario in 2040.