Carbon Emissions and Climate Change

Since the nineteenth century, human-induced carbon emissions emissions created through the burning of fossil fuels, such as coal and oil have increased exponentially, with the greatest increase in emissions occurring in the past sixty years (see Figure A). Coinciding with this increase in emissions, there has also been a corresponding increase in the Earth's temperature, since the same period (see Figure B).



The scientific consensus is that human-induced carbon emissions are the principal determinant of this global warming. There is also a scientific consensus that unless global action is taken to mitigate the effects of climate change—through the reduction of human-induced carbon emissions—there will be notable adverse consequences for Earth's climate and its inhabitants.

According to the International Energy Agency (IEA), between 2005 and 2009, Australia's level of CO2 emissions per unit of power generated (measured in grams of carbon dioxide per kilowatt-hour—gCO2 per kWh) was 884gCO2 per kWh.

According to the International Energy Agency (IEA), between 2005 and 2009, Australia emitted more than the world's average amount of CO2 per unit of power generated (measured in grams of carbon dioxide per kilowatt-hour—gCO2 per kWh).

Australia emitted 884gCO2 per kWh compared to a global average of 457gCO2 per kWh (see figure).



According to the International Energy Agency (IEA), between 2005 and 2009, Australia emitted more CO2 per unit of power generated (measured in grams of carbon dioxide per kilowatt-hour—gCO2 per kWh) than 134 out of 139 countries (see figure).



Australia emitted 884gCO2 per kWh, making it the world's **5th-largest** carbon emitter. Only four countries emitted more CO2 than Australia:

- Botswana (1991gCO2 per kWh),
- Cambodia (1162gCO2 per kWh),
- Malta (940gCO2 per kWh), and
- India (939gCO2 per kWh).

<u>All</u> other OECD countries emitted less than Australia (457gCO2 per kWh on average)