

The Greenhouse Gas Problem

The industrial revolution began over 150 years ago and since then the level of carbon dioxide in the atmosphere has increased by about 25%. This trend in annual increases in the atmospheric concentrations of greenhouse gases is continuing.

If it were not for the natural effect of the “greenhouse gases” trapping the sun’s heat the planet would be too cold to live on and so is consequently responsible for our current climate. Based on this fact we can hypothesize that an increase in the concentration of these gases in the atmosphere will cause an increase in global warming. Carbon dioxide is the most significant of the greenhouse gases and the present increase in carbon dioxide in our atmosphere is due to burning fossil fuels.

Greenhouse gas management is a significant issue for Australia. Government greenhouse management measures, such as the 2% renewable energy target, can be an important driver for developing innovative and creative solutions to the problem. We are currently seeing global warming from the “greenhouse effect” as one of the key drivers for the move towards renewable energy alternatives. The renewable energy industry sector could play a key role in satisfying Australia’s energy needs on a sustainable basis as well as meeting our environmental obligations.

Media attention on climate change has raised community consciousness of the need for energy to be generated on a sustainable basis. While consumer support for green energy is strong and growing, the renewable energy sector faces a number of challenges, including the higher capital cost of renewable energy generation capacity.

What you need to do:

An alien from another planet has just arrived and is perplexed by the controversy surrounding the greenhouse effect and global warming. Here's how you can help:

Task 1: Draw a diagram illustrating the greenhouse effect. Label it carefully.

A large, empty rectangular box with rounded corners, intended for the student to draw a diagram illustrating the greenhouse effect. The box is outlined in orange and occupies most of the page's width and height.

Task 2: Write a concise report that explains the diagram.

A large, empty rectangular box with rounded corners, intended for writing a report. The box is white and is framed by a thin orange border. It occupies most of the page's vertical space below the task instruction.