



CLIMATE CHANGE

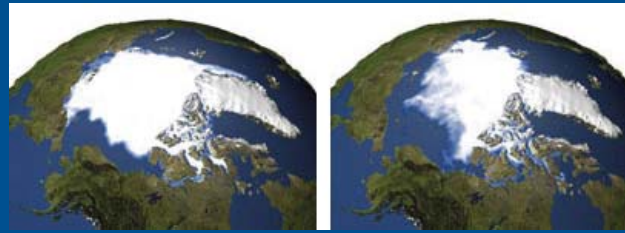
Climate Change and security of our energy supply are urgent and serious issues. More than two thirds of the world's carbon dioxide emissions are a direct consequence of the way we produce and use energy. Consequently, we need to act immediately, the long-term cost of inaction will be far higher than the cost of tackling climate change now.

The need to diversify electricity generation is also important in order to reduce our reliance on imported fossil fuels. Developing a home grown self sufficient renewables industry is one of the best ways of achieving this.



WHAT IS GLOBAL WARMING?

Most of the sun's rays are absorbed by the earth and help maintain its temperature. Some of the sun's rays are also reflected back into space. However, increased levels of greenhouse gas emissions are trapping more of the sun's rays than ever before, preventing them from reflecting back into space. This additional energy is increasing the earth's average temperature.



1979
Source NASA

2003

These images show the reduction in the size of the Arctic ice cap between January 1979 (left) and January 2003 (right). Scientists believe that greenhouse gases are the cause of Climate Change.



THE 2020 CLIMATE CHANGE TARGET

In April 2009 the UK became the first country in the world to have legally binding greenhouse gas emissions targets. Alongside the fiscal budget the chancellor announced a legally binding carbon budget to help cut greenhouse gas emissions to at least 80% below 1990 levels by 2050.*

* DECC

THE LIKELY CONSEQUENCES OF CLIMATE CHANGE INCLUDE:

Sea levels may rise by up to half a metre by the end of this century (0.18m to 0.59m full range)

The projected warming will increase the frequency of heat waves and heavy precipitation events, affect storminess and reduce snow and ice cover.

Warming of oceans and melting permafrost could release large amounts of methane (a much more potent greenhouse gas than CO₂) into the atmosphere.

Increased temperatures could reduce the ability of plants and soils to absorb CO₂.

Up to 20% of coastal wetlands could be lost globally.

Currently 1/3 of world's human population live in water stressed countries – this is likely to double by 2050, resulting in increased economic and political instability in these areas.

75-250 million people across Africa could face water shortages by 2020

Crop yields could increase by 20% in East and Southeast Asia, but decrease by up to 30% in Central and South Asia

Agriculture fed by rainfall could drop by 50% in some African countries by 2020

20-30% of all plant and animal species are at increased risk of extinction if temperatures rise between 1.5-2.5C

Glaciers and snow cover are expected to decline, reducing water availability in countries supplied by melt water

Source: *The IPCC (3rd & 4th Report 2007)*