

# Climate change and energy use

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The aim of my talk is to highlight the importance of various aspects of chapters 9, 10 and 12 of your course books. I hope to bring these different aspects to life and show you how the work that you do in your AS in Science for Public Understanding can enable you to engage with some of the most pressing contemporary policy problems faced by the world today. I also hope that your study of these issues will enable you to make informed decisions about playing a part in the solution to these problems.

My talk will explore two key questions:

1. The science behind climate change is uncertain. Despite this uncertainty, should society act now to prevent climate change?
2. Renewable electricity generation is often cited as being too expensive. Some people believe nuclear energy to be a better option for combating climate change. Is nuclear the best option, or is it simply swapping one uncertainty for another?

## **The issue**

Perhaps *the* most challenging contemporary policy problem that governments currently face is climate change, or 'global warming'. The action that we do or do not take today to combat climate change could possibly determine whether people in the future are able to inhabit the earth. In other words, the lives of future generations might be in our hands. But, note that I say '*might* be in our hands'.

## **The science behind the issue**

Few scientists disagree that climate change is happening. But a small number of people do disagree about whether human beings are causing climate change. Scientists can also not be certain exactly how bad the impacts of climate change will be, or where and in what form the impacts will be felt. This means there is a high degree of uncertainty involved in the science of climate change which makes policy making a difficult task for governments.

## **What this tells us about science and society**

In this talk I will discuss why, despite the uncertainty involved in the science of climate change, society has a moral obligation to act to prevent it. As I work for a group that provides policy advice to government on energy, I will focus on the role that our use of energy plays in driving climate change. I will explain why some people believe that renewable energy is too expensive and why nuclear energy is a better option. I will end my talk by exploring the arguments for and against the use of nuclear energy as a possible solution to climate change.

## Learning outcomes

The key thing that my talk should help you to think about is the fact that the science upon which society has to base its decisions on is not always certain. Nevertheless, decisions have to be made about how we will tackle climate change and many other pressing environmental issues. Scientists cannot provide us with all the answers. It is up to you and me, and the governments we elect to represent us, to make decisions based on an assessment of the science alongside economic, political and, most importantly, moral considerations as to what action we will take to combat climate change.

Please remember that when you listen to my talk you will hear me present a series of arguments that reflect my own personal opinion based on ten years experience of studying the available facts regarding climate change and other environmental issues. If Ian Fells had given this talk, as originally planned, you would have heard a different opinion, based on the same facts. It is up to you to look at the facts and make up your own minds.

## Background reading

The following web sites provide some interesting opinions on some of the issues that I will cover in my talk.

- **Pro action against climate change**  
BBC News: Climate change fight 'can't wait'  
<http://news.bbc.co.uk/2/hi/business/6096084.stm>
- **Anti action against climate change**  
Tom Harris: "The Inconvenient Truth" is indeed inconvenient to alarmists  
<http://www.canadafreepress.com/2006/harris061206.htm>
- **Anti micro-generated renewable energy**  
George Monbiot: Small is Useless  
<http://www.monbiot.com/archives/2006/10/06/small-is-useless/>
- **Pro micro-generated renewable energy**  
Ben Courtice: Renewable energy: is small useless?  
<http://greenleftbloggers.blogspot.com/2006/10/renewable-energy-is-small-useless-ben.html>  
(Note: this is a slow link but does seem to open if you wait long enough)
- **Pro nuclear power**  
James Lovelock: Nuclear power is the only green solution  
<http://comment.independent.co.uk/commentators/article61727.ece>
- **Anti-nuclear power**  
Friends of the Earth: Why nuclear power is not an achievable and safe answer to climate change  
[http://www.foe.co.uk/resource/briefings/nuclear\\_power\\_answer\\_climate\\_change.pdf](http://www.foe.co.uk/resource/briefings/nuclear_power_answer_climate_change.pdf)  
Greenpeace: Nuclear not the answer  
<http://www.greenpeace.org.uk/climate/solution/notnuclear.cfm>
- **Pro the precautionary principle approach to policy making**  
Environmental Research Foundation: The Precautionary Principle in a Nutshell  
[http://www.precaution.org/lib/pp\\_def.htm](http://www.precaution.org/lib/pp_def.htm)  
Wikipedia: Precautionary principle  
[http://en.wikipedia.org/wiki/Precautionary\\_principle](http://en.wikipedia.org/wiki/Precautionary_principle)
- **Anti the precautionary principle approach to policy making**  
Daniel K. Benjamin: A Cautionary Tale  
<http://www.perc.org/perc.php?id=762>