

### Advanced Conventional Energy (10 credits)

The aim of this module is to introduce and discuss the issues involved with energy derived from Nuclear Power, Coal and Gas.

There is arguably no other form of energy that polarises opinion as much as in the nuclear debate. It is seen by some as an environmental threat, and others as a solution for global warming and sustainable development. The general public see coal as an old-fashioned smelly polluting source. Gas is a finite resource that is becoming increasingly expensive and subject to political controls.

Nevertheless all three sources must have a part to play in the future global energy mix since renewable energy cannot supply all of the demand. Advances in technology, such as gasification or carbon capture, now allow all three to be delivered in a more efficient and safe manner.

From 2008/09 onwards this module is delivered as a competition using teams of 4 students from a range of engineering disciplines. This mode of delivery forces them to research and understand the broad range of energy provision issues affecting today's providers. This also allows those teams who wish to enter the RWE npower challenge which is the parallel national competition. Since this challenge has started Birmingham has had teams in the final six every year.