

## Aims and objectives

On successful completion of this subject, the student should be able to:

- Analyse the concept of energy usage
- Evaluate advantages and disadvantages of the various energy sources
- Examine supply and demand side management
- Evaluate energy in an environmental context

## Teaching methods

2 on-campus full day workshops (Hawthorn), 10 online tutorials.

1 field trip to La Trobe Valley power generation facility and Power Works [www.powerworks.com.au](http://www.powerworks.com.au),

## Assessment

Analyse a local energy facility (report); conduct a home/household energy use assessment; systems analysis of a proposed response to an energy sustainability challenge (essay).

## Content

This unit will explore energy concepts, forms and use from a number of perspectives, covering energy use in an everyday sense and how it is measured and controlled. The social and economic consequences of how we currently use energy will be investigated, along with energy trends and forecasting. This unit also explores the importance of energy efficiency and alternative energy options.

## Topics

- Energy concepts
- Energy sources
- Energy efficiency
- Energy's environmental context
- Energy trends and forecasting (energy's social context)

## Lecturers – Prof Frank Fisher and Josh Floyd

### Prof Frank Fisher

Frank is committed to social transformation to a more sensitive self-aware world. He has worked in the area of environmental education for three decades, much of that time as Associate Professor in the School of Geography and Environmental Science at Monash University in Melbourne. He uses the insights he has gained to transform his own life which, in addition striving for sustainable practice, has included learning to live positively, with a life threatening condition.

Frank has published numerous papers on context education and specifically, on the social contexts of health, transport and energy. A selection of these has (2006) been published as a book by Vista Publications called "Response Ability: Environment, Health & Everyday Transcendence".

### **Josh Floyd**

Josh has worked for the National Centre for Sustainability as a lecturer and researcher for the past six years. His move into the sustainability field followed a ten-year career in the extractive metallurgy industry as a mechanical engineer.

His areas of expertise include meta-systems thinking and analysis, and strategic foresight. Josh has a particular interest in energy futures. He has a Master of Science degree in Strategic Foresight from Swinburne University.

### **Recommended reading**

Elliott, D (2003), *Energy, Society & Environment*, 2nd ed., Routledge, London.

Fisher, F (2006), *Response ability: environment, health and everyday transcendence*, Vista Publications, Melbourne

### **Comments from previous students:**

*"Teaching style and teaching perspective is great – especially as it has really engaged students"*

*"Student conversations / sharing stories"*

*"Challenging our current way of doing things"*

*"Excursions were fantastic, very beneficial and related to course"*

*"Excursions were something I will always remember"*