

## “Nukes are Neat” ...?

### Nuclear energy is clean ... ?

- The whole fuel cycle of nuclear power, from mining uranium to the decommissioning of the power station, releases 3-4 times more carbon dioxide per unit of energy produced than renewable energy (e.g. solar and wind energy). Nukes are not the answer to climate change.

### Nuclear energy is safe ... ?

- There is a risk of low-level radiation in all stages of the nuclear power process. Research shows that low-level radiation does have health and environmental implications.
- High-level nuclear waste remains radioactive for thousands of years. No country has yet found a safe way to store this waste.
- International experience shows that the consequences of an accidental nuclear explosion are devastating. Despite rigorous safety precautions, people make mistakes. The nuclear industry operates in an uncertain world, it cannot control the effects of political instability, war or natural disasters.

### Nuclear energy is cost effective ...?

- Nuclear energy is, on average, between 2 and 4 times more expensive than electricity from fossil fuels – and that’s not counting the costs of decommissioning the nuclear power station and dealing with the waste.
- The nuclear industry requires enormous financial investment – before any returns are realised. Without its huge subsidy from government the nuclear industry in South Africa would not have survived.
- The social and environmental costs associated with nuclear power, from uranium mining to disposal of nuclear waste are never factored into the project costs.

### Nuclear energy provides jobs ...?

- Nuclear power projects require experts with highly specialised knowledge and skills. Relatively few South Africans qualify for such jobs.

### Nuclear energy is a renewable energy source ...?

- Given current global demand, it is estimated that the world’s uranium resources (both those currently available and possible new reserves) will be exhausted within 70 years.

### Nuclear energy is ethical ...?

- The nuclear power industry has a reputation for being secretive and manipulating public participation processes.
- A nuclear capacity is seen as a symbol of power. It is a relatively small step from producing fuel for nuclear power stations to producing weapons of mass destruction.

## *If nukes are not so neat ... what’s the alternative?*

### Use less energy

- Harnessing the power of energy users – we can choose to act in more energy efficient ways at home and at work.
- Energy efficiency is a driving force in innovative technological design, from light bulbs to fridges – there are new appliances that use less electricity than older ones.

### Use renewable energy sources

#### Renewable energy makes economic sense

- The costs of renewable technologies is decreasing as the market and the rate of technological innovation increases.

#### Renewable energy provides jobs

- The renewable energy sector has the potential to create hundreds of thousands of jobs, and stimulate local economies in areas where unemployment levels are high.

#### Renewable energy can produce electricity for industry

- Renewable technology is not limited to producing electricity on a small scale. Solar thermal power stations are large generators of electricity.

#### Renewable energy is people’s power

- The renewable energy sector does not rely on a large, inefficient electricity grid system. A diverse renewable energy sector, with many small-scale plants serving local areas, gives people more control of their energy supplies.

**Current investment decisions:** The government’s proposed nuclear energy expansion programme requires an investment of about R400 billion. The government is investing about R14 million in renewable energy sources. *A balanced energy policy?*

#### To find out more:

Earthlife Africa has produced several research documents related to the nuclear industry and the viability of an expanded renewable energy sector in South Africa. In January 2008 it developed **10-point plan towards solving the electricity crisis**, together with COSATU, Sustainable Energy Africa, the Southern African Faith Communities’ Environment Institute (SAFCEI) and the South African Climate Action Network (SACAN)

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[www.cane.org.za](http://www.cane.org.za) the website for the national Coalition Against Nuclear Energy

[www.nirs.org](http://www.nirs.org) an international website of the Nuclear Information and Resource Service, initiated about 30 years ago, based in USA