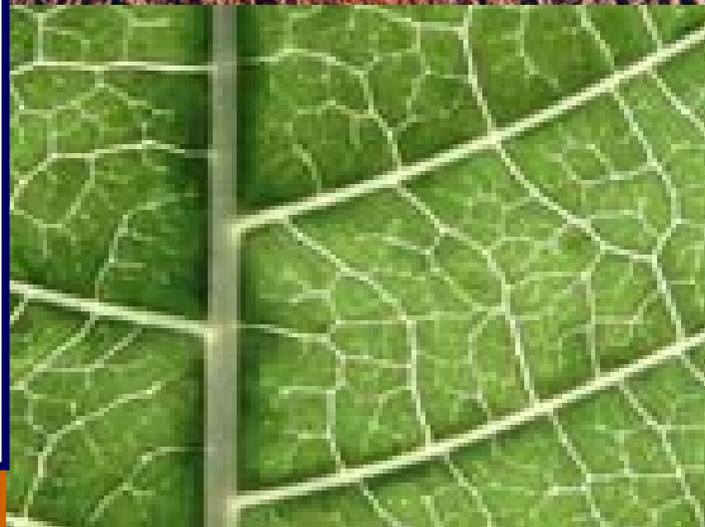
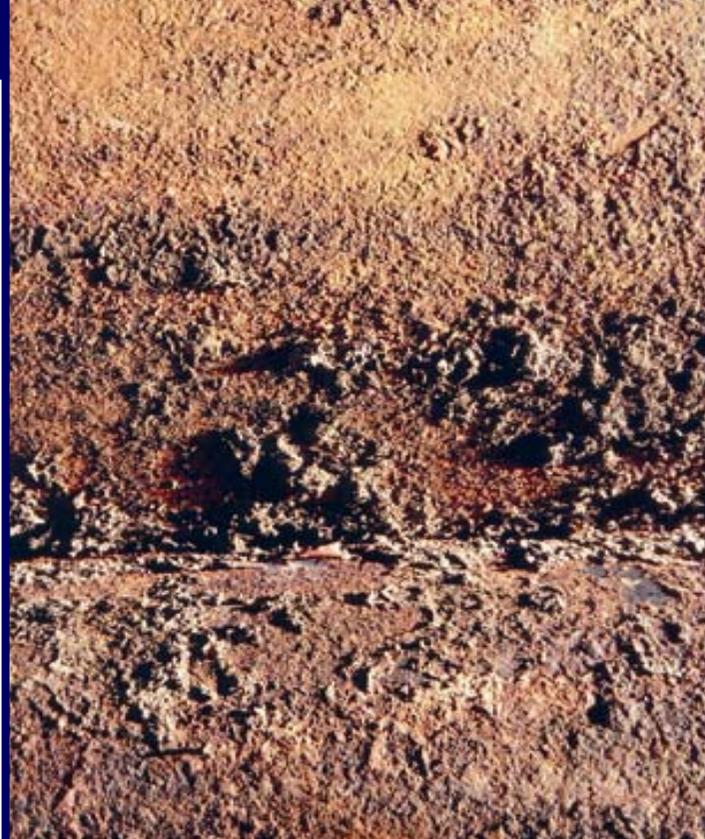




A U S T R A L I A N
Greenhouse
Office





Australian Greenhouse Office

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Synthetic Gas Use in Australia

Montreal Protocol Industries

- Refrigeration & air con
- Foam blowing
- Fire protection
- Aerosols
- Solvents

non Montreal Protocol Industries

- Aluminium
- Magnesium
- Electricity supply



National Greenhouse Strategy—Measure 7.2

“Governments will work with industry to develop environmental management strategies for each of the synthetic gases included in the Kyoto Protocol—HFCs, PFCs, and SF₆. The strategy for HFCs will address the use of HFCs in non-refillable containers.”



Greenhouse Challenge

- Voluntary program between industry and government
- Currently has 400 signed agreements and more than 300 companies committed to joining
- Includes major importers of synthetic greenhouse gases, all transmission companies, and significant metal producers



Greenhouse Gas Abatement Program (GGAP)

- Allocation of \$100m per year for four years
- For activities that result in substantial emissions abatement—open tender process
- Funding for the first round of funding closed on 5 September, at least one focused directly on synthetic greenhouse gas emissions



Prospects for Magnesium Production in Australia

- Australia does not have a magnesium industry, but it possesses world-class deposits of magnesium ore and cheap electric power
- Proposals for nine magnesium plants are currently the subject of feasibility analyses
- By 2010 Australia could be the world's largest producer of primary magnesium

Australia's Magnesium Proposals

Project Owner	Nameplate Capacity (tonnes/yr in 2003)	Potential Installed Capacity in 2008
AMC	96,000	96000
Crest Magnesium	95,000	190000
Golden Triangle Resources	0	80000
Golden Triangle Resources	0	65000
SAMAG (Pima Mining)	0	52500
Mt. Grace Resources	50,000	50000
Pilbara Magnesium Metal	0	50000
Anaconda Nickel Ltd	0	100000
Hazelwood Power	30,000	30000
Total capacity (potential)	271000	713500



Current Activities of Australian Magnesium Industry

Currently Australia has:

- a 1500 tpa demonstration magnesium metal plant of AMC at Gladstone in Central Queensland
- a few firms that produce magnesium and magnesium magnesium alloy die-castings
- research into light-metal casting technology

Advantages of HFC-134a As A Cover Gas

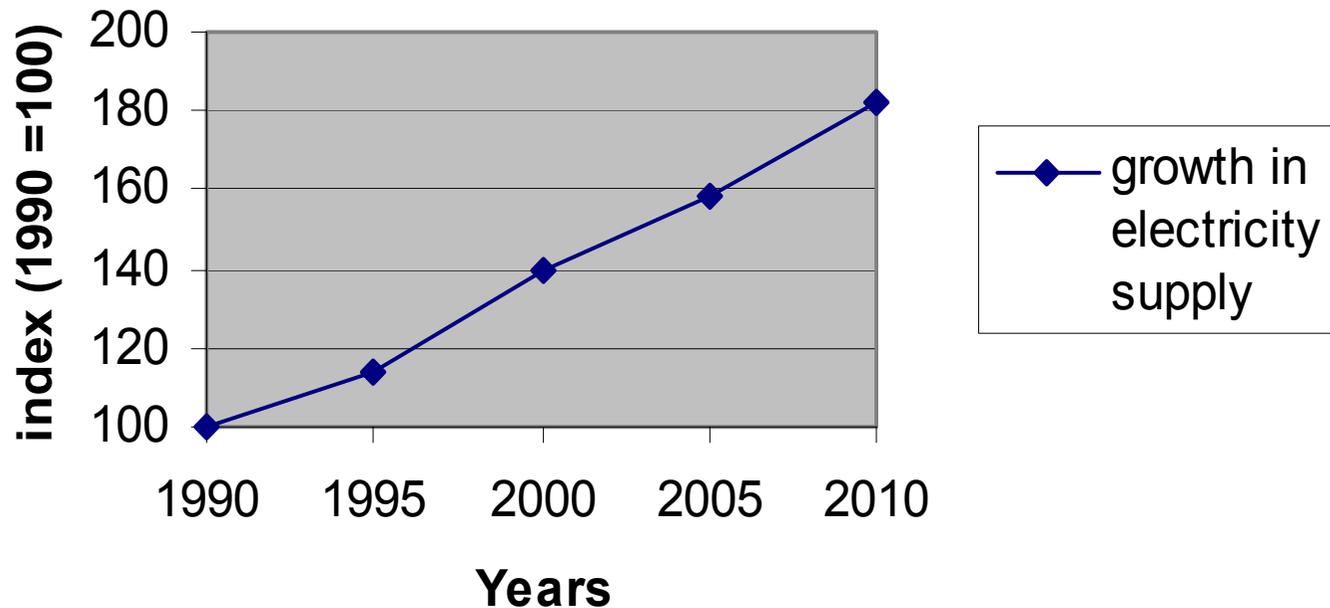
HFC-134a:

- **has** a global warming potential of only 1300, 18 times less than that of SF₆
- **costs** about one-third of the cost of SF₆
- **is** more effective than SF₆ for magnesium melt protection
- **has** the ability to extinguish a magnesium fire once started

Replacing SF₆ with HFC-134a could potentially save Australia millions of tonnes of CO₂-e per annum

Projected Transmission of Electricity on the Grid

Projected Growth in Australia's Grid Supplied Electricity





Actions in Electricity Supply

The majority of electricity utilities have agreements with Greenhouse Challenge

Ongoing work will:

- allow a better understanding on SF₆ use and emissions
- support revised data collection procedures, inventory methodology, and projections work
- assist in developing cost-effective measures that mitigate SF₆ emissions



The Australian Greenhouse Office
is the lead
Commonwealth agency
on greenhouse matters



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