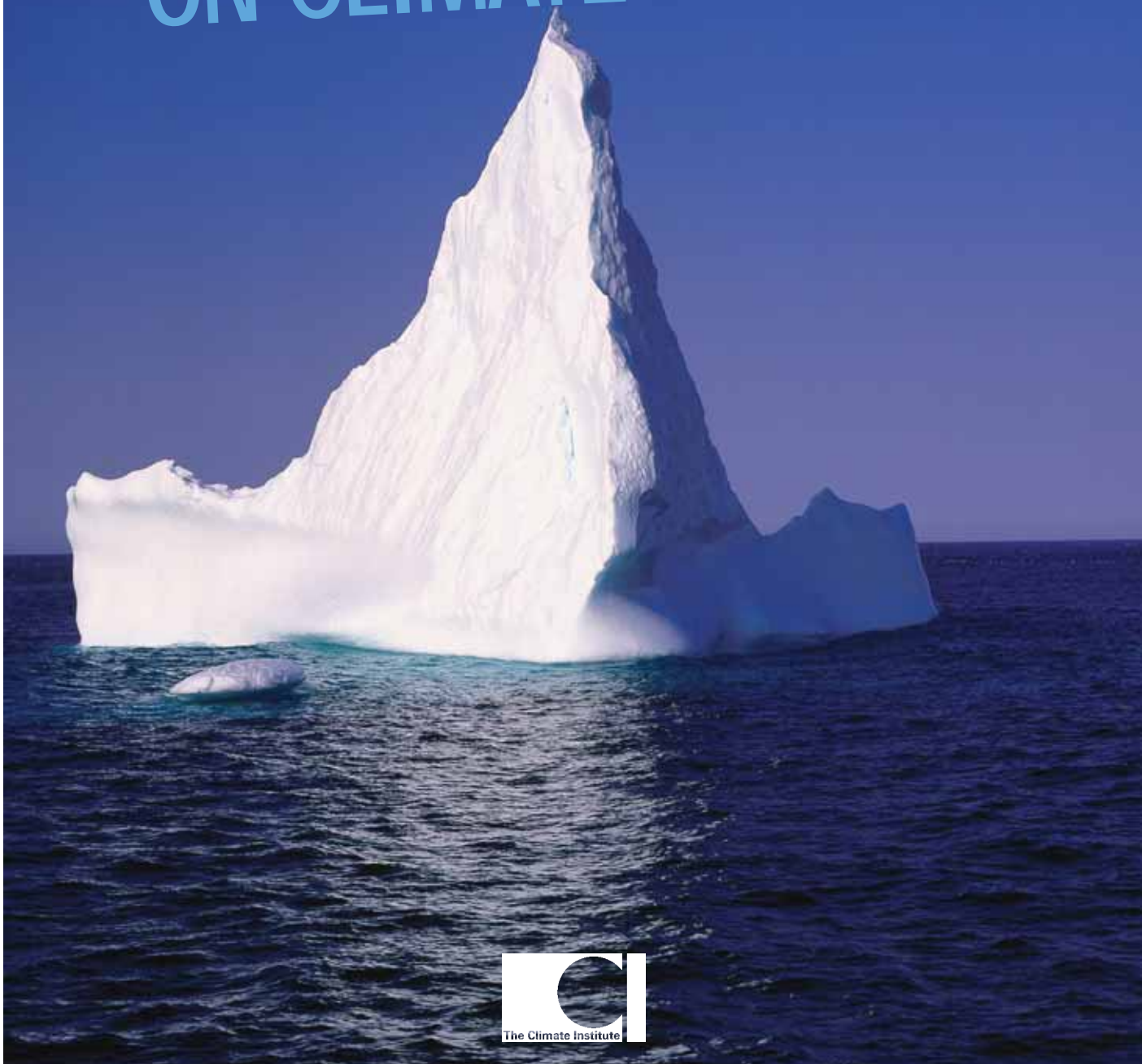


TOP TEN TIPPING POINTS ON CLIMATE CHANGE



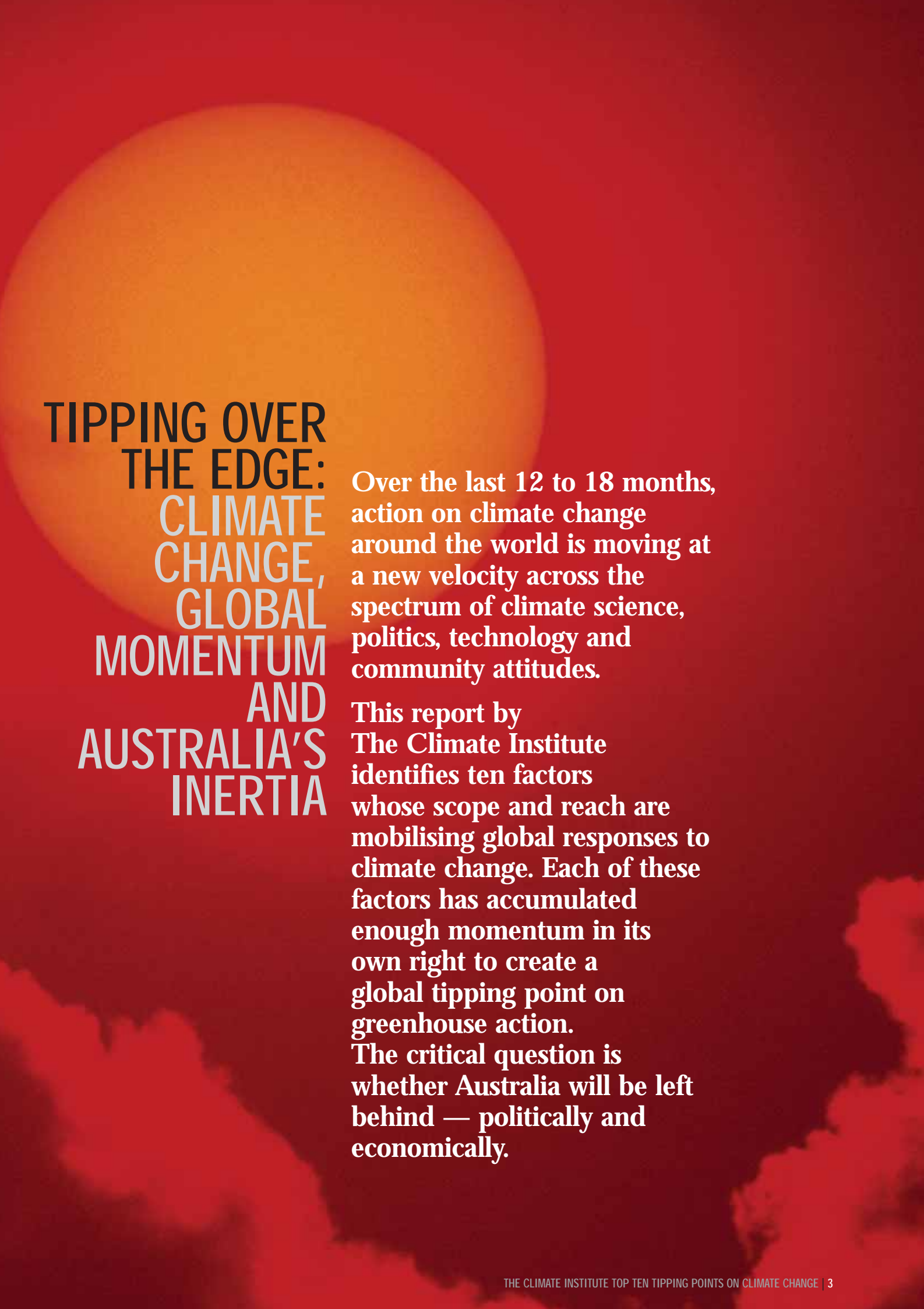
THE CLIMATE INSTITUTE

TOP TEN TIPPING POINTS ON CLIMATE CHANGE

AN ANALYSIS OF HOW
THE FUNDAMENTAL TRENDS
OF CLIMATE CHANGE
HAVE SHIFTED AND
WHY AUSTRALIA IS ADRIFT

"We are entering the Oh Shit era
of global warming."

Rolling Stone Magazine (US), 3 November, 2005



TIPPING OVER THE EDGE: CLIMATE CHANGE, GLOBAL MOMENTUM AND AUSTRALIA'S INERTIA

Over the last 12 to 18 months, action on climate change around the world is moving at a new velocity across the spectrum of climate science, politics, technology and community attitudes.

This report by The Climate Institute identifies ten factors whose scope and reach are mobilising global responses to climate change. Each of these factors has accumulated enough momentum in its own right to create a global tipping point on greenhouse action.

The critical question is whether Australia will be left behind — politically and economically.

THE TOP TEN TIPPING POINTS ON CLIMATE CHANGE ARE

1 SCIENCE: The evidence is clear, the impacts are growing and there are signals that extremes are increasing in scale and frequency.

According to leading scientists, climate change is the greatest environmental challenge confronting the world. There is no longer any question that the problem of human-made climate change is intensifying. Our planet is heating up faster than at any time in recorded history, while concentrations of the key greenhouse gas, carbon dioxide, in our atmosphere have been measured at levels higher than at any time over the last 650,000 years. Recent evidence has many scientists stating that we have underestimated the scale and speed of climate change impacts. There are signals that climate extremes are increasing in scale and frequency. The impacts are likely to be more serious than previously thought.

The scientific consensus is that it is necessary to make cuts of at least 60% in emissions by 2050 in order to avoid catastrophic climate change impacts.

2 THE USA: A significant shift has occurred; despite an obstructionist Bush White House, the US is taking concerted action on climate change.

While the Australian position has been aligned with that of President Bush and his anti-Kyoto stance, the Canberra radar has failed to notice the enormous

number of progressive steps being taken by various US national, state and city leaders who are taking a prominent role in the carbon-constrained global market. Seven US states, 227 cities and a number of influential members of Congress, both Republican and Democrat, are circumventing the Bush White House's intransigent position. These congressmen, governors and mayors are committing their jurisdictions to emission reduction targets, carbon trading and renewable energy development. Like a super tanker changing course, seemingly small initial movements are imperceptible but alter the destination markedly. As the US moves forward on climate, it leaves Australia politically and economically isolated as the least-prepared developed country in the world on this issue.

3 BUSINESS: The "watch and wait" approach is over; global business is driving the establishment of a global economy that controls carbon.

Companies around the world are using climate change as a strategic business driver across not only emissions reductions, but also the development of new markets, technologies and other areas of investment. The prevailing view that reducing greenhouse gases harms economies and profits is being superseded by significant corporate activity to exploit the upsides of climate change. Primary producers, manufacturers, lenders, insurers, consultants and investment analysts are integrating

greenhouse gas exposure into commercial decision making. Australian businesses are laggards compared to their counterparts in Europe, Japan and North America. The sheer size of the new carbon-constrained markets — which includes China — is ignored at Australia's economic peril.

4 MEDIA: A global spike in the quantity and quality of media coverage has brought climate change to the front of public awareness.

Once the subject of scientific journals alone, last year, *The New York Times* and *Washington Post* alone ran nearly 600 stories on climate change. In 2006, global warming adorned the covers of *Time* and the programs of the BBC, ABC (US), CNN and HBO. The tenor of the articles shifted from scientific queries to calls for action. The issue, previously treated as a minor environmental topic like recycling, is now a multifaceted current affairs issue with news, foreign policy, science, business and popular culture angles. Not surprisingly, public awareness of the issue has followed in the wake of this global media spike.

5 ENERGY SECURITY AND OIL PRICES: Oil and gas overdependence has created new impetus to reduce fossil fuel consumption. This widespread concern has ushered in a new group of advocates for energy security to become proponents for climate change action.

One of the most powerful tipping points around climate change has been the need to tackle global energy insecurity and increasing oil prices. The oil market is fuelled by the fear of terrorism, instability in some exporting countries, a nationalist backlash, fears of a scramble for supplies, geopolitical rivalries,

and countries' fundamental need for energy to power their economic growth. With oil hitting record highs of US\$75 a barrel, off-the-shelf renewable energy sources are moving centre stage for political reasons that have little to do with the environment. The energy crisis is stimulating the interest level and investment credits in clean energy sources well beyond the traditional climate change drivers.

6 INTERNATIONAL POLICY: Kyoto, the G8 and other international forums are establishing tougher parameters for global action to reduce greenhouse gas emissions and address climate change.

International diplomacy on climate change has a heightened sense of urgency and activity. The Kyoto Protocol signed by 163 countries entered into force in 2005 and the subsequent meeting in Montreal, Canada launched fresh global action on a number of important levels, including the adoption of the rulebook setting the framework for trading and potential future action by developing countries. The most recent meeting in Germany in May 2006 set an ambitious agenda towards "science-based emissions reduction targets" on the part of industrialised countries within the next few years. Often cited by the US and Australia as a major Kyoto failure, action by and within the developing world is gathering pace. To date the Protocol has created US\$2.7 billion (AU\$3.6 billion) of greenhouse friendly investment in the developing world, especially China, Brazil and Mexico. Over 750 projects are underway, and the forecast investment by 2012 in developing countries is US100 billion (AU\$133 billion). Since 2005, climate change has also become a top priority for the G8 and the UK's Presidency of the EU.

7 CARBON PROFITS: International carbon trading markets have exploded, already worth billions and projected to be one of the largest commodity markets in the world.

The global carbon market, which combines cutting emissions with making money, has exploded in the last two years, largely driven by the Kyoto Protocol and the introduction of the European Union Emissions Trading scheme. Last year, the global carbon market was worth US\$10 billion (AU\$13.3 billion) with predictions for 2006 of US\$25-30 billion (AU\$33-40 billion). Carbon markets are destined to be one of the world's biggest commodity markets. Currently Australia has little access to or experience of this burgeoning market.

8 CLEAN ENERGY: Formerly a boutique player in the energy arena, renewable energy is mainstream and booming, with US\$56 billion (AU\$74 billion) of business world-wide in 2005.

Clean energy technologies — wind, solar, biofuels, etc. — have come of age. In 2005 the global market was US\$56 billion (AU\$74 billion). Clean energy is now a major part of power systems throughout the world. Advanced generations of clean energy technologies continue to improve and costs are declining with mass production and deployment.

With double digit growth, clean energy is one of the hottest commercial sectors in the world. The 'alternatives' tag is now an anachronism.

9 POP CULTURE: Too complicated, too frightening, too "green"? No more. Climate change is now part of popular culture, be it TV, movies or celebrity champions.

When *Vanity Fair*, *Rolling Stone* and moviemakers jump on the climate change bandwagon, it is safe to say the issue is thoroughly mainstream. Al Gore's film, *An Inconvenient Truth*, has played a critical role in raising the issue in the US and internationally, with launches at Sundance and Cannes making global headlines. International celebrities are linking their names and their efforts to this critical issue.

10 MORAL ISSUE: Once the purview of environmentalists and scientists, climate change has been embraced as a moral issue by churches, faiths and spiritual leaders.

Given the severity of the impacts of climate change, church and moral leaders have recently taken up positions on the issue calling for global leadership, international cooperation and swift action to protect planet Earth and to spare those most likely to feel the repercussions, the poor and underprivileged.

Taken together, these ten factors have created a global tipping point for concerted greenhouse action. The question is how will Australia respond?

As the world wakes up to the urgency of climate change, Australia is asleep at the wheel.

AUSTRALIA'S PLACE IN THE WORLD

While the world moves forward on climate change with determination, ingenuity and positive action, Australia is, at best, hesitant, at worst, recalcitrant. It remains a back seat passenger in the international effort to cut greenhouse gases while domestic emissions climb. Despite the existence of various Government greenhouse programs, Australia has no plan or policy to halt the trend of rising emissions, or even to stabilise them. Australia's total greenhouse gas emissions are expected to grow to 22% above 1990 levels by 2020¹. Emissions primarily from electricity generation are expected to grow by 46% from 1990 to 2010 and 70% by 2020, and transport emissions by 53% to 2010 and 78% by 2020.

Under current policies, the only direction for Australia's greenhouse gas emissions is upwards. A shift to nuclear power would have no impact on emissions profiles to 2020 because it would take that long to get a nuclear power plant up and running.

The science is more urgent, yet there remains a high degree of denial in Australia. Global carbon

markets are a reality yet Australia has no carbon price. Clean energy technologies are the next big thing yet Australia's renewable sector has been virtually killed off and is moving backwards. Global corporations are capturing economic opportunities, yet here the debate is mired in the notion that reducing emissions will be too painful and expensive. The USA's position has shifted but Australia's has not. In the realm of global politics, the debate on climate change is "hot" yet here it is still distinctly unfashionable. Worldwide, countries are finding ingenious ways to make dramatic emissions cuts, while Australia makes little concerted effort and emissions rise.

Despite the fact that the climate change issue has changed beyond all recognition in the last 12 to 18 months, these tipping points seem to be going largely unnoticed in Australia. There is little sense of urgency or forward direction on the issue in the national debate, across the political spectrum, in the business sector and in the media.

As the world wakes up to the urgency of climate change, Australia is asleep at the wheel.