

## 50% by 2020 – What Does it Mean?

Climate change is the greatest environmental threat, challenge and opportunity to face humanity. The global community has a choice between a stark future or a bright new future based on conservation, global cooperation, equity and justice for every citizen and species and an essential ecological sustainability. We need a re-imagining of our society, economies, institutions, energy and production systems to deliver a safe climate future.

To meet the climate challenge together, we need to act fast and act decisively. The longer we leave action the more dramatic and expensive the consequences become. But how do we get there? As with any plan, we need to set targets.

By setting a target of how much we need to reduce our greenhouse gas emissions and by when, we can begin to map our path of what we need to do now to get there. **GetUp believes our Government needs to set a target of reducing Australia's emissions by 50% of the level they were in 1990, by the year 2020. Emissions have to start declining by 2010.** This is a revision of the targets we set in 2006, in line with scientific developments since then.

### **Why 50%?**

Scientists agree global average surface temperature must not rise more than 2°C above pre-industrial temperatures. Developed countries like Australia have contributed the most to the problem of excess greenhouse gases, and are also best placed economically and socially to implement measures that reduce them.

The most recent science is suggesting things are worse than we first thought. Recent evidence, such as last year's dramatic Arctic melt, suggests that the climate system is responding faster than expected to increasing greenhouse gas emissions, with observed data being at the upper end, or exceeding, the UN's Intergovernmental Panel on Climate Change (IPCC) climate model predictions.

We are finding out that in fact our climate system is much more sensitive than previously thought and that we may be close to tipping points which can cause irreversible changes. Melting is occurring so rapidly in the Arctic that scientists now suggest that there will be no summer ice by 2013, 90 years earlier than IPCC predictions. Global emissions are rising much more quickly than predicted in even the worst case scenarios projected by the IPCC.

The IPCC recommendations are helpful, but they are also conservative estimates and based on old science. They recommend we reduce emissions by 25-40% by 2020, but this will still only give us a 2–2.4 degree temperature rise, and that is already too much to avoid serious climate change. That means we need to reduce emissions by **more than 40%** by 2020.

### **What's Wrong With the Current Recommendations of 25-40% by 2020?**

The current recommendations are based on scientific papers more than two years old, not taking into account that observed temperature, sea-level and emissions increases are tracking at the very top of, or above, IPCC projections. The lowest emissions scenario assessed does not limit global warming below 2°C, which is too high for a stable climate future. Global warming above 2 degrees poses unacceptable risks to Australia and the rest of the world. The risk profile behind these projections only give a 50% chance of meeting the temperature target for the given emissions scenario.

## Above 2 Degrees Too Dangerous

A two degree rise in temperature is widely viewed as the threshold above which lies global climate disaster. These risks are widely documented, including in the Stern Review and Interim Garnaut Report, and include substantial consequences for Australia.

The signs of climate change are already evident in the polar north, in Darfur's famine, in Australia's depleted Murray–Darling river system, the collapse of ecosystems across the globe, the 2007 Greek and Californian mega-fires, coral stress in the Caribbean and Australia's Great Barrier Reef, widespread species loss, changing monsoon patterns, destruction of low-lying communities, and regional food-production stress. Our world's warning bells are well and truly ringing. The United Nation's emergency relief coordinator, Sir John Holmes, warned that twelve of the thirteen major relief operations in 2007 were climate related and that this amounted to a climate-change 'mega disaster.'

The Interim Garnaut Report recognises that Australia is the developed country most susceptible to the impacts of climate change. With as little as a 1-2 degree temperature rise, likely impacts in Australia are:

- Increased influx of refugees from Pacific Islands
- Southward spread of malaria receptive zones
- 91% chance of wheat exports being below current levels (without adaptation)
- \$12.4 million/ year to manage the southward spread of the Queensland fruit fly
- 12-25% decrease in flow of Murray Darling Basin

The Report also recognises the likely impacts of a 2-3 degree temperature rise on Australia's economy, environment and water resources, including:

- 97% of the Great Barrier Reef bleached every year
- 80% loss of Kakadu freshwater wetlands (30cm sea level rise)
- 40% reduction in livestock carrying capacity for native pasture systems
- 10% increase in forest fire danger across much of Australia
- 20-30% increase in tropical cyclone rainfall
- 5-10% increase in tropical cyclone wind speeds
- Temperature related mortality among people 65+ years in Australian capital cities increases by 89-123%

Scientists have calculated that for us to have a good chance of keeping the temperature increase below 2 degrees we need to stabilise the long term concentration of greenhouse gases at no more than '400 parts per million' of carbon dioxide in the atmosphere (see graph below). **Since the IPCC's lowest scenario is 445 – 490 parts per million (based on 25 – 40% reductions by 2020), developed countries such as Australia need to reduce by more than 40 % by 2050.**

## Is 50% by 2020 Possible and What Will it Mean for Australia?

McKinsey & Company's report *An Australian Cost Curve for Greenhouse Gas Reductions* found that a significant reduction in Australian emissions is achievable — 30 per cent below 1990 levels by 2020 without major technological breakthroughs or lifestyle changes.

The cost of achieving that, less than \$1 per day per household, represents a small fraction of the increase in annual household income of well over \$20,000 expected by 2020. Using the same methods, the cost of reducing 50% of our emissions by 2020 is estimated to cost each household about \$3 a day. There are many ways, not taken into account by that model, to further reduce that cost. By comparison, this is roughly the cost of the Australian advertising

industry, and significantly less than the economic cost of road accidents. This amount represents less than 5% of the extra income Australians are projected to have by that year.

Australia has some of the cheapest energy in the world. Around 75% of our electric power comes from coal — the dirtiest form of conventional power generation. If we were to get down to the same level of carbon efficiency that already exists today in Europe, we would already have reduced our emissions by over 50%. On the other hand, Europeans, who already emit much less than us, are committing to reduce further.

What would Australia be like if we halved our emissions by 2020? Without doubt, we would need to make bold, rapid changes to our economy. New industries will need to be created and expanded — in energy efficiency, industrial-scale reforestation, renewable energy, and new clean tech industries. Hundreds of thousands of new jobs will be created, spurred by our investments in these activities. In Germany, already 250,000 people are employed in the renewable energy sector and renewable energy exports have boomed. New buildings will be designed very differently to the way they are designed today, to be more energy efficient, in some cases helping generate their own power and feeding it back into the grid.

We will need to invest in free, reliable public transport and pedestrian- and bike-friendly neighbourhoods. The private cars that we do need can be hybrids and eventually full electric vehicles. The power required will need to be supplied by a rapidly increasing supply of renewable energy, as we phase out coal-fire power plants. We will fly less and travel instead by fast trains, as exist in many other countries. We will eat more local produce.

These are big changes for any society to undertake in 12 years. And for many of us, change can be scary — especially changes as big as these. But the alternative, the cost of not making these big changes, is much worse. And the benefits of early action to reduce emissions will be far more than just achieving a safe climate future: they will also revitalise our communities as people walk, cycle and take public transport more. They will create hundreds of thousands of new green-collar and green-professional jobs. If we succeed we will have pulled together as a society, overcoming old differences in one united effort to address the greatest challenge of our generation. Much greater material sacrifices have been made by generations who are still with us today.

## **Strong Australian Targets = International Leadership**

Australia cannot solve climate change on our own. We need strong global targets for the international agreements to follow Kyoto. Developing countries will play a key role — it is imperative that they commit to stabilising and reducing emissions. However, developing countries did not historically cause the problem, and industrialised nations have much higher per capita emissions than non-industrialised nations. Considering that many parts of the world suffer from energy poverty, asking developing countries to reduce their emissions is grossly unfair. Australia must do its fair share of reducing global emissions.

## **Conclusion**

Together we can rise to meet this challenge. Emission reduction targets must be based on what is necessary, in order to keep up with the most recent science. **This year, our Government needs to set targets that ensure Australia's emissions must peak and decline by 2010, and halve over 1990 levels by 2020.**

**A more detailed and fully referenced summary of GetUp's position can be found at: <http://www.getup.org.au/files/campaigns/getupclimatetargetpolicy.pdf>**