

*Anything less than greenhouse cuts of 30% by 2020 risks the human, economic, and environmental future of NSW.*

Human induced climate change is already affecting NSW, and without urgent action to reduce greenhouse pollution we face a future of increasing drought, severe storms, and climate conditions never before experienced.

The NSW public deserves action to keep us below the danger threshold of a 2°C global temperature rise.<sup>1</sup> Best estimates are that developed countries such as Australia need to reduce greenhouse pollution by at least 30% below 1990 levels by 2020 if we are to avoid crossing this threshold.<sup>2,3,4</sup> Emissions need to start falling in the next four or five years to meet this target.<sup>5</sup>

Current NSW policy is a standstill target, for 2025 emissions to be the same as in 2000. It is not credible to set a target which falls so short of what is needed and claim to be acting on climate change.

A 30% by 2020 reduction target for NSW is ambitious and will need visionary leadership, but without it we are committing ourselves and our children to a perilous future.

We call on all parties to commit to legislate for 30% greenhouse emission reduction by 2020, and to introduce these measures:

- ➔ a target for zero energy growth by 2010 with annual 1.5% reductions from then on,
- ➔ a legislated target for 25% of electricity from renewable energy by 2020,
- ➔ a moratorium on new or expanded coal fired power station and coal mines,
- ➔ a transport strategy to reverse the growth in greenhouse pollution, and
- ➔ a genuine end to land clearing.

The NSW government should also propose 30% emission reduction below 1990 levels by 2020 as the target for a national or state based emissions trading scheme.

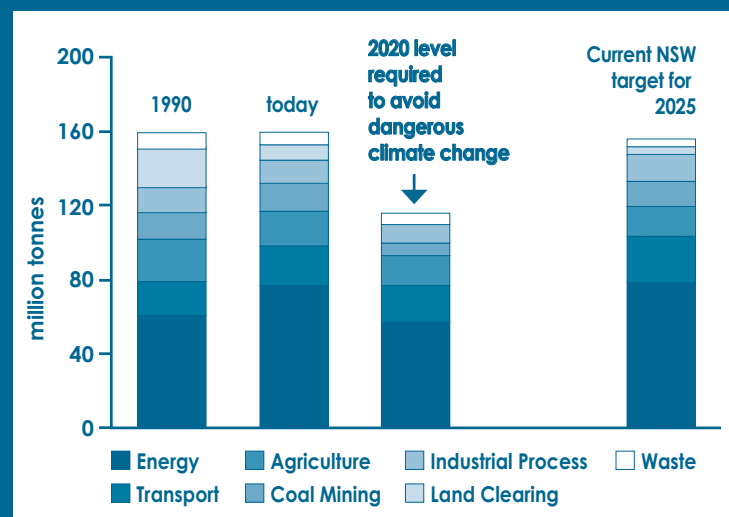
This paper shows where we are today, why we need a 30% target, and how we could achieve it.

## Where are we now?

NSW greenhouse emissions are currently about the same as in 1990, mainly because emissions from land clearing have declined significantly.<sup>6</sup> Business as usual would see emissions rising steeply.

The NSW Government has set a standstill target for emissions to equal 2000 levels in 2025. According to the latest science from the Intergovernmental Panel on Climate Change and CSIRO, this is nowhere near enough.

NSW Greenhouse Emissions



## Why we need a 30% target

The world is heading for a global temperature rise of between 1.1 and 6.4°C by 2100. When the global average temperature was only 5°C cooler the world was in the grip of the last major ice age, with metres of ice covering what are today's major cities. The global temperature has risen 0.7°C since 1860, and we are already experiencing serious climate change consequences in Australia and around the world.

There is general consensus amongst scientists, governments and environment groups that avoiding dangerous climate change means keeping warming as far below 2°C as possible.<sup>7</sup>

It is in Australia's interests to keep the temperature rise lower still, as even a 2°C rise means we are likely to lose unique ecosystems like the Great Barrier Reef, and experience even more severe drought.

**“Once the global temperature increase exceeds 2°C, climate impacts on ecosystems, food production and water supply are projected to increase significantly, unexpected response of the climate becomes more likely and irreversible catastrophic events may occur.”**

**European Union, February 2005.<sup>8</sup>**

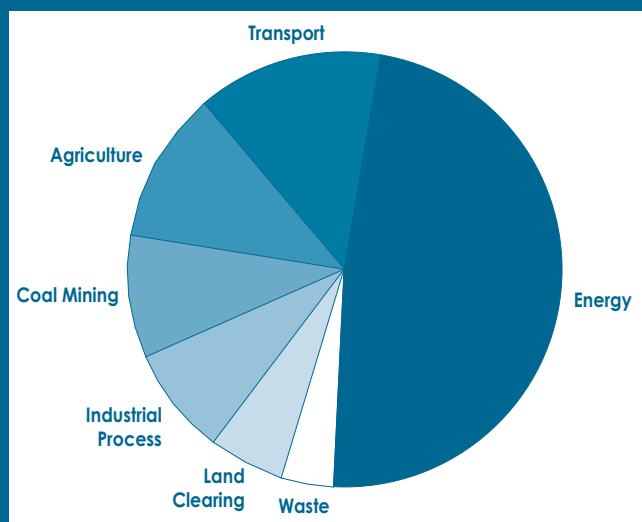
Pre-industrial levels of carbon dioxide were 280 parts per million in the air, and are currently 380 parts per million. Scientists say that to have a reasonable chance of keeping temperature increases below 2°C we need to stabilise levels below 400 parts per million. Anything beyond 450 parts per million is a “reckless flirtation with catastrophe”.<sup>4</sup>

We have a small window of opportunity to reduce greenhouse emissions to keep below the 2°C threshold. Emissions need to stop growing by 2010 and then start falling.<sup>5</sup> Developed countries including Australia and the US will need to commit to reductions of 30-35% from 1990 levels by 2020 and more than 80-90% by 2050.<sup>3,4</sup> In January this year, the European Commission proposed to unilaterally reduce its own emissions to at least 20% below 1990 levels by 2020, and said it would take on a target of 30% by 2020 as part of a global agreement.<sup>10</sup>

NSW should set an example by committing to the emission cuts we need to keep below the 2°C threshold: 30% greenhouse emission reduction by 2020.

## NSW greenhouse emissions 2004

Energy accounts for nearly half of NSW greenhouse emissions. The chart shows where the rest come from.<sup>9</sup> There have been huge increases in energy and transport emissions since 1990. Electricity use in particular is rising steeply. This is not only an environmental disaster, but means our electricity grid is groaning under the strain.



*Anything less than greenhouse emission cuts will threaten the human, economic, and environmental future of NSW.*

# How NSW can make 30% cuts by 2020

## Zero Energy Growth by 2010

We cannot afford the climate change that would result from letting electricity emissions keep rising. NSW is also wasting billions on infrastructure to support inefficient electricity use. We spend \$2 billion each year to increase the size of the NSW electricity grid.<sup>11</sup> We should instead invest this in energy efficiency, which can reduce electricity use even while the services we want increase.

The Federal Government's own research shows we could reduce energy use by 8% by just implementing the energy efficiency that pays for itself in four years.<sup>12</sup>

Reversing the current juggernaut of energy growth creates enormous opportunities, as the energy efficiency of our economy lags well behind most developed countries. For example we produce nearly double the greenhouse pollution per dollar GDP compared to the European Union.<sup>13</sup> And yet the EU has just announced it plans to increase energy efficiency so much it will reduce energy use by 13% by 2020, saving A\$164 billion in the process.<sup>14</sup>

➔ **We need to reach zero energy growth by 2010 with annual reductions of at least 1.5% per year from then on. NSW needs a comprehensive plan that includes world's best practice energy efficiency standards for appliances, buildings, vehicles and industrial equipment, expanding existing energy savings programs, and making demand management the regulated first option within the National Electricity Market before any proposal to expand network capacity is permitted.**

## 25% Renewable Energy by 2020

Renewable energy can deliver emission-free electricity. We need to grow the industry to reduce emissions in the short term and allow us to move away from polluting electricity in the long term. A 25% renewable energy target for 2020 is achievable, and would bring many benefits: 4,000 permanent jobs, \$9 billion new investment in NSW, a 16% reduction in electricity sector greenhouse emissions, and enough clean renewable electricity to power every household in NSW.<sup>15</sup>

The National Electricity Market should be reformed to correct the current bias towards greenhouse gas intensive generation.

➔ **We need a legislated target for 25% of electricity from renewable energy by 2020.**

## No New Coal

Most of our electricity comes from coal, which is the most greenhouse polluting form of electricity generation. Every time a new power station is built it 'locks in' emissions for a long time, as power stations have a lifetime of twenty to forty years. We need to scale back our coal generation, and in the long term phase it out. Any expansion will make it impossible to meet even the current NSW target for emissions to equal 2000 levels in 2025, let alone reaching the reduction target we need.

Australia is the world's largest coal exporter, and NSW hosts the largest coal export port, Newcastle. As worldwide we need to reduce greenhouse emissions, an expanded coal industry risks becoming a dinosaur as the world moves to cleaner technology. Any expansion of capacity puts jobs, investment and the environment at risk.

➔ **We need a moratorium on new or expanded coal fired power stations, coal mines, and coal infrastructure, starting with the Anvil Hill proposal.**

*Cuts of 30% by 2020 risks  
environmental future of NSW.*

## Other sectors

To reach 30% reduction needs action in every sector, not just energy. These are some of the other measures needed:

- ➔ **Transport:** a visionary strategy to reverse the growth in greenhouse pollution by 2010, including a doubling of public transport expenditure, halving timetables for improving public transport provision to greenfield and existing urban areas; effective financial incentives to achieve rapid increases in fuel efficiency, incentives for low emissions transport options, and a removal of all subsidies which encourage car and truck use.
- ➔ **Land clearing, forestry and agriculture:** land clearing will need to be stopped including removal of current loopholes and genuine compliance action.

Agricultural practices which reduce emissions and increase soil carbon should be systematically encouraged. Logging should be stopped in forests already stressed or threatened by dieback, and a Code of Practice introduced to regulate logging on private land.

- ➔ **Coal mining emissions:** account for nearly 9% of current NSW emissions. They come mainly from coal seam methane released as a result of mining, and exclude the energy used in mining. These should be reduced by at least half by 2020. This could be achieved simply by regulating minimum standards for mining operations.
- ➔ **Industrial processes:** emissions should be reduced by implementing world's best practice production processes.

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1. This is the European Union target, and quoted in refs 3 & 4.
2. While NSW or Australia cannot determine global action, we should lead by example.
3. Elzen, MGJ den 2005 Countries' climate mitigation commitments under the "South-North Dialogue" Proposal. Netherlands Environmental Assessment Agency. Pg 59 & 60.
4. Athanasiou, T., Kartha, S., and Baer, P. 2006. Greenhouse Development Rights. EcoEquity and Christian Aid.
5. If emissions peak after 2010 it becomes virtually impossible to stabilise even at 450 ppm because annual reductions would be too great: Stern, N. 2006. Stern Review The Economics of Climate Change. Page 200.
6. The NSW Greenhouse Gas Scheme has helped reduce the rate of energy growth only recently.
7. Preston, B.L. and Jones, R.N. 2006. Climate Change Impacts on Australia and the Benefits of Early Action to Reduce Global Greenhouse Gas Emissions. Report for the Australian Business Roundtable on Climate Change. Page 11
8. European Union. 2005. Winning the Battle Against Climate Change. MEMO/05/42 Page 4
9. Fugitive emissions have been labelled 'Coal mining', as coal mining accounts for 96% of NSW fugitive emissions.
10. European Union. 2007. Commission proposes an integrated energy and climate change package to cut emissions for the 21st Century. IP/07/29
11. Dunstan C. Market Mechanisms for "Future Proofing" Network Investment. Presentation at BCSE conference Energy Infrastructure and Sustainability 2006.
12. Australian Government. 2004. Securing our energy future. Table 1, Page 111.
13. Climate Analysis Indicators Tool (CAIT) Version 4.0. (Washington, DC: World Resources Institute, 2007).
14. European Union. 2007. Saving 20% by 2020: European Commission unveils its Action Plan on Energy Efficiency. Memo/07/6. Page 2.
15. Nature Conservation Council of NSW, Total Environment Centre, Greenpeace, Australian Conservation Foundation. 2006. The Great Opportunity: 25% renewable energy for NSW.



TOTAL ENVIRONMENT CENTRE

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