

The Committee Secretary,
House of Representatives Standing Committee
on Industry and Resources.

Dear Secretary,

We welcome the opportunity to comment on this most important issue. Doctors for the Environment Australia is a non-government organisation of medical doctors in all states and territories. We educate on the links between human health and the environment and as your committee will be aware, the World Health Organisation considers that 40 per cent of human disease has an environmental basis.

Why is your remit a health issue?

The Standing Committee may well be curious as to why an organisation of medical doctors should see fit to make a submission on this issue. The answer is quite simple. On the basis of the scientific reports, we regard climate change as the world's most severe threat to human health and well-being. In making this assertion, members of our Committees are part of the IPCC and keep us informed and indeed recognise that even since the most recent IPCC report, greenhouse emissions are accelerating and the state of the physical and biological world continues to deteriorate.

What are these impacts on human health and well-being? Within Australia, we recognise the following scenarios are expected to occur mostly with a high probability, and indeed some are already underway.

- Physical hazards, mental trauma, displacement and damage to livelihoods from changes in cyclone patterns.
- Changes in rainfall patterns, drought and more irregular climatic cycles in the south of our continent bringing rural stress, depression and reduced economic activity. The possibility of more flooding in the north-west and centre.
- Extremes of heat, with the potential for heat stress and deaths. In March of this year we sent a briefing on this to all senators and members, so we will not reiterate these points.
- An increase in bushfire severity in the south with consequences of injury, death and economic loss.
- Changes in the distribution of infectious diseases and the spread of new ones to Australia. Dengue fever will spread, as well as Japanese encephalitis. Other tropical diseases such as melioidosis and coastal sea food vibrios are likely to appear. Food poisoning will increase.
- The loss of ecological services will have profound effects on the availability of fresh water and the maintenance of fertile land thus affecting the livelihood of rural and some urban communities and indeed with significant economic loss to agricultural industries.
- The consequences of climate change in the Asia Pacific region will affect the security of Australia because of considerable numbers of environmental refugees secondary to sea level rise, malnutrition and the failure of Asian rivers. In the US these security issues are accepted already by many government think-tanks. No doubt the next President will understand them and act on them.

We are happy to provide references on any of these scenarios to members of the Committee.

The role of emission targets

The Stern Review has told us that in order to limit the likelihood of dangerous climate change to an acceptable level that may avoid dangerous climate change, we need to limit greenhouse gas concentrations to between 450 to 550 ppm of CO₂ equivalent. At present we are at approximately 380ppm and the rate is increasing yearly.

These targets are very challenging, and as many, including previous Environment Minister Senator Ian Campbell have recognised, will require us to use all the technologies that we currently have available, and more. *"If we're to avoid getting to 550 parts per million, you need a massive injection of new technology, you need basically everything the world's got at its doorstep at the moment. You need wind, solar, nuclear, gasification of coal, you need every single thing and you need more,"* he said. Some of us think that 550 ppm is far too high if civilization is to continue without huge disruption, for climate change effects are already widespread and are accelerating. Stabilizing the CO₂ concentration even at 450 ppm will require global human-induced carbon dioxide emissions to drop below 1990 levels within a few decades and continue to decrease steadily thereafter. This then is the task of governments throughout the world and not least a wealthy country like Australia, to assuage this situation with firm legislation. We believe that there has been enough talk about jobs and the economy, as scientists we warn there will be no healthy economies and many fewer jobs unless we treat this as an emergency.

Our view on the importance of renewables

Australia's most recent National Greenhouse Accounts show that electricity makes up 50% of Australia's overall greenhouse emissions and the growth of this sector's emissions are out of control.

Renewable energy is an essential part of the energy mix which will be required to enable us to meet these targets. It includes a diverse mix of technologies, solar thermal, solar power, wind power and bio-energy – including landfill gas and generation from sugar cane waste.

According to the Australian Bureau of Agriculture and Resource Economics (ABARE), these technologies already provide 7% of Australia's power generation.

However, the urgent need is to rapidly increase the input from renewables to significantly reduce emissions till technological developments in clean coal, perhaps nuclear, and more speculative innovation such as geothermal come on stream. We need to reduce emissions **now** because of the threat of tipping points whereby the process of warming becomes irreversible. Only renewables and energy saving can mitigate this possibility and hold the line till larger technological innovation comes into play in perhaps two decades' time.

While there is federal support available for research and development of renewable technologies, there is no longer a federal program ensuring more renewable energy is deployed. The Mandatory Renewable Energy Target has been an extremely successful program. However now the target has essentially been met - years early – and will not result in further renewable energy investment around the country. The renewable energy industry demonstrated clearly their ready capacity to quickly meet demand for renewable energy. However, while this program was designed to increase the market share of renewable energy by 2%, in reality it is unlikely to mean that renewable energy will come anywhere close to a real increase of a 2% share, as a result of such strong growth in electricity demand.

At a time when the most authoritative and scientifically credible sources are telling us that globally we must reduce our emissions by 60-80% by 2050, it is an embarrassment for our country so rich in renewable energy resources, to be only able to manage to maintain a renewable energy market share of 7%. We need to massively increase the share of Australia's power generation sourced from renewable energy. As has been recognised by the federal government we have substantial resources in this area.

We commend the federal government for their policies to support solar power and their support for geothermal energy development. However, there are a number of other renewable technologies that are further developed but which are as yet unable to compete with conventional and more emissions-intensive technologies, while the environmental costs of power generation remain externalised. MRET as it currently stands will no longer support these technologies, and so at the federal level they need support.

We also welcome the federal government's intention to implement a domestic emissions trading scheme in Australia. However while we support this announcement, with no specific target announced and judging by comment in the Shergold report, it is a reasonable assumption that emissions trading will not be an adequate support for our growth of our renewable energy industry for some time.

Renewable technologies such as wind power and bio-energy sources can make a huge contribution to Australia's energy needs. In the long run we will need these technologies in force, as they are the only way to supply our energy needs with zero emissions growth. We are not limited by the resources available, but by the requirement to provide some support to enable them to be financially attractive investments under our present economic accounting that takes no notice of externalities. Now a number of the state governments are developing renewable energy targets which are essentially very similar to the successful design of the MRET scheme. In the absence of an extension to MRET, we believe these programs will complement the federal government's emissions trading scheme, ensuring that in the near term our young renewable energy industry continues to grow. The Stern Review emphasised that emissions trading is not a one-policy wonder. There needs to be a suite of policies to achieve our emissions goals.

Renewables are a health support system

We have made the point that climate change is a health issue and that the rapid development of renewables is essential for us to head off a possible tipping point leading to uncontrollable warming and disastrous health, social and economic consequences. It would be foolish to await some arbitrary position where renewables were judged to be economic by the market. If one takes the un-accounted externalities of fossil fuels into account, renewables are economically viable now. Furthermore, in our energy policy <http://www.dea.org.au/node/91> we account for renewables having many advantages to the community in addition to their emission reducing capacity. On the one hand we have the particulate and mercury pollutions of fossil fuels compared to the clean manufacture of renewables, the community job creation and social binding attributes particularly in rural areas which in Australia can be seen by the Members of the Standing Committee.

Finally we often hear a fearful and nihilistic view expressed that Australia cannot move ahead on many of these issues for fear of losing out in the economic competitive playing field. It doesn't need an intellect of Einstein proportions to tell us that if all nations say this and await action from others, we are doomed. Poor nations have their minds set on finding a crust to feed themselves. It is the rich that must offer leadership for others to follow. It is our view that this is Australia's role in the Asia Pacific--- to offer this leadership whatever the apparent cost at this moment, for as we have said already in this submission, What economy? Unless we control this situation there will be no economy.