

# Public Health Association of Australia submission on

Clean Energy Legislation (Carbon Tax Repeal)
and related Bills 2013

Christine McDonald

Secretary

Environment and Communications

Legislation Committee

PO Box 6100

Parliament House Canberra ACT 2600

Email: ec.sen@aph.gov.au

Contact for PHAA Michael Moore CEO

**21 November 2013** 

# **Contents**

Introduction	3
Public Health	3
The Public Health Association of Australia	3
Advocacy and capacity building	3
Ecology and Environment Special Interest Group (SIG) of PHAA	3
Clean Energy Legislation (Carbon Tax Repeal) and related Bills submission summary	4
1. The relevance to health	5
2. Scientific basis for urgency	6
3. A systematic approach to Greenhouse Gas emission reductions	6
Core features	6
Health Co-benefits from action	7
Economic Co-benefits	8
Additional factors	8
4. Multi-partisan support	8
Conclusion	9
References	

# Introduction

The Public Health Association of Australia Incorporated (PHAA) is recognised as the principal non-government organisation for public health in Australia and works to promote the health and well-being of all Australians. The Association seeks better population health outcomes based on prevention, the social determinants of health and equity principles.

#### **Public Health**

Public health includes, but goes beyond the treatment of individuals to encompass health promotion, prevention of disease and disability, recovery and rehabilitation, and disability support. This framework, together with attention to the social, economic and environmental determinants of health, provides particular relevance to, and expertly informs the Association's role.

#### The Public Health Association of Australia

PHAA is a national organisation comprising around 1900 individual members and representing over 40 professional groups concerned with the promotion of health at a population level.

Key roles of the organisation include capacity building, advocacy and the development of policy. Core to our work is an evidence base drawn from a wide range of members working in public health practice, research, administration and related fields who volunteer their time to inform policy, support advocacy and assist in capacity building within the sector. PHAA has been a key proponent of a preventive approach for better population health outcomes championing such policies and providing strong support for the Australian Government and for the Preventative Health Taskforce and National Health and Medical Research Council (NHMRC) in their efforts to develop and strengthen research and actions in this area across Australia.

PHAA has Branches in every State and Territory and a wide range of Special Interest Groups. The Branches work with the National Office in providing policy advice, in organising seminars and public events and in mentoring public health professionals. This work is based on the agreed policies of the PHAA. Our Special Interest Groups provide specific expertise, peer review and professionalism in assisting the National Organisation to respond to issues and challenges as well as a close involvement in the development of policies. In addition to these groups the Australian and New Zealand Journal of Public Health (ANZJPH) draws on individuals from within PHAA who provide editorial advice, and review and edit the Journal.

# Advocacy and capacity building

In recent years PHAA has further developed its role in advocacy to achieve the best possible health outcomes for the community, both through working with all levels of Government and agencies, and promoting key policies and advocacy goals through the media, public events and other means.

# **Ecology and Environment Special Interest Group of PHAA**

The Ecology and Environment SIG is an active part of the PHAA on several topics. Overall activity focuses on promoting an ecologically sustainable human society as a foundation for long term

human health. Acting for a safe climate by advocating for a rapid, ordered transition from fossil fuels to renewables; opposing expansion of the nuclear industry and supporting sensible discussion on wind turbines as an energy source are priorities. Environmental chemical, including lead, exposures is an emerging topic.

We work with the Climate and Health Alliance on several projects, including the Energy Choices and Health Collaboration. This project assesses the potential impacts on health of all the major energy sources, with a particular focus on fossil fuel extraction and use. Immediate, direct and longer term global health effects are equally important. We also educate about the wider health and implications of greenhouse gas emissions.

# Clean Energy Legislation (Carbon Tax Repeal) and related Bills submission summary

This submission argues that strong, rapid and urgent action to mitigate greenhouse gas emissions is required protect human health and wellbeing now and into the immediate future. It bases this argument on the evidence about warming in the most recent Intergovernmental Panel on Climate Change Fifth Assessment Report. We propose a schema for considering what elements might be included in an approach that is designed to protect human health and wellbeing by reducing greenhouse gas emissions. We suggest a broad, flexible, multidimensional set of policy and program initiatives are required along with cross-parliamentary collaboration.

# 1. The relevance to health

- 1.1. Global warming and its sequelae sea level rise and climate change are an important and serious policy problem ultimately because of the effects on individual and societal health and wellbeing, directly, indirectly, and via economic disruption.
- 1.2. The actual and potential global warming health effects are well documented. These include an amplification of a host of existing issues and can be considered in three groups (Figure 1)(1, 2). First are the direct effects, such as: increased injuries and deaths from more severe or frequent weather events including heat waves, and storms compounded by sea level rise and population shifts. Next are the secondary, indirect effects from ecosystem changes in natural cycles and functions. These include the changed range and timing of infectious diseases; changed temperature, rainfall and evaporation effects on plants additional to those from increased atmospheric CO<sub>2</sub> concentrations; sequelae from changes in microbiota influencing soil fertility; and changed insect ecology that will effect crop fertilisation and pest prevalence and behaviour. All of these are likely to synergistically reduce agricultural output and quality resulting in food insecurity. The economic and social consequences of these and other systemic effects will both reduce capacity to respond, including health system capacity, and reduce psychosocial wellbeing (3-11).

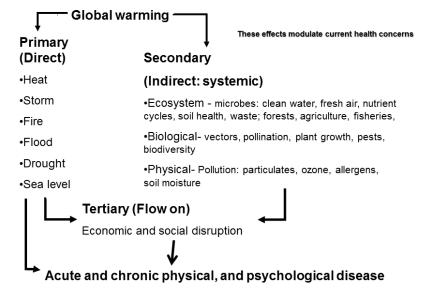


Fig 1 Summary of health consequences of greenhouse gas emissions

- 1.3. Additional to these effects, as poorer developing nations, particularly ones who will be affected by rising sea levels within a decade of so, become more affected by the consequences of greenhouse gas emissions, global population displacement raises legitimate humanitarian issues which include forced migration and health impacts.
- 1.4. Carbon emitting energy sources have local and direct adverse impacts on people's health besides the global indirect effects from global warming. These effects will be reduced at the

- same time as action to reduce greenhouse gas emissions from energy generation and transport.
- 1.5. Based in the public health principle that to prevent or minimise these health related consequences as much as possible is better, and ultimately less costly, than having to manage them, it is therefore in society's interests to protect the health of people in this and subsequent generations, by taking action to conserve the natural environment, and rapidly reduce greenhouse gas emissions.

# 2. Scientific basis for urgency

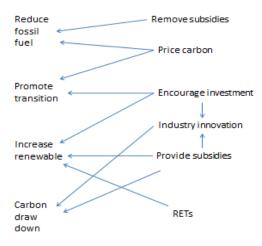
- 2.1. At Copenhagen in 2009, the scientific consensus was that to avoid dangerous climate change, the mean global temperature should not increase by more than two degrees centigrade above the pre-industrial level (12).
- 2.2. The most recent Intergovernmental Panel on Climate Change (IPCC) report estimates that, to have a 50 per cent probability of not exceeding a 2°C increase relative to 1861-80, humanity can emit less than 1,210 gigatonnes of carbon (GtC). For a better probability of not exceeding a 2°C increase a 2 to 1 chance (66% probability) the budget is 1000 GtC. Emissions to 2011 were 531 (446 616) GtC. If non-CO<sub>2</sub> forcings are included, the numbers are 840 and 800 GtC (13). At current emission trajectories it is likely we will exceed a 2°C increase in the 2040s (14). Further, emissions and rates of emissions are increasing (15) so the probability of passing the 2 degree guardrail is high (16).
- 2.3. The IPCC AR5 confirms the need to rapidly implement programs to achieve substantial, sustained reductions in greenhouse gas emissions to halt warming (13).

# 3. A systematic approach to Greenhouse Gas emission reductions

## **Core features**

- 3.1. Any plan to reduce greenhouse gas (GHG) emission to a level consistent with that which the science suggests is needed, will have to be ambitious, in the order of 25% or more by 2030 and more rapidly thereafter, and flexible to respond to evolving circumstances.
- 3.2. PHAA recognises that action to reduce GHG emissions is complex and we anticipate that multiple strategies will be required, and that a mix of policies will be necessary across different sectors of the economy. Given the urgency and likely severity for society of global warming, we would prefer to see a complete alternative package of measures developed and publically discussed before repeal of the existing legislative package occurs.
- 3.3. Some indication of the types of measures we are considering is outlined in Figure 2. While our expertise is in health, this background provides us a set of skills which we can apply to looking at the system transition that will be required.

3.4. Four broad domains of action are required (left hand column). These are in turn under the influence of a set of broad possible policy elements which can affect several domains. In essence it is introducing both policy guidance and price signals to foster changes in social behaviour and drive industry innovation and increasing investment in research and



development in technology and systems.

Fig 2 Schema summarising examples of types of policy / program action to reduce greenhouse gas emissions

- 3.5. It is beyond our expertise to go into further depth; the point is to outline that the approach to mitigating greenhouse emissions requires a broad and integrated set of responses. This is the kind of approach that we would anticipate a government may propose to replace the set of measures that currently exist.
- 3.6. We think an independent body such as the Climate Change Authority is extremely important to monitor and advise on greenhouse emission targets and trajectories. This removes this sensitive issue from political influence in the same way that financial advice is removed by the Reserve Bank.

#### **Health Co-benefits from action**

- 3.7. The health sector knows that action to reduce greenhouse emission and adapt to warming can have benefits for health. For instance,
  - 3.7.1.consuming less red meat reduces risk of heart disease and colon cancer;
  - 3.7.2.better designed cities reduce motor vehicle use and improve opportunity for physical activity and social connectedness, and can make them cooler and more comfortable places to live.
- 3.8. Planned, calm reformation of the economy will be better for people's mental health than change driven by crisis and disasters.

#### **Economic Co-benefits**

- 3.9. Developing renewable non-greenhouse polluting energy sources offers exciting economic opportunities and helps the economic transition from fossil fuels to renewable energy.
- 3.10. Clean energy sources as alternative employment for the workforce that is concerned about employment with scaling down of fossil fuel industries. Such initiatives will help offset unemployment due to the mining down turn and in fossil fuel industries in locations such as Newcastle or regions with high unemployment such as Tasmania. The point is that planning is needed to guide the transition, reduce unemployment and stimulate economic growth and this includes setting the right economic policy drivers, based around government incentives and a price on carbon.
- 3.11. Health and emergency response planning experience tells us that rising to the challenge presented by global warming sooner rather than later will minimise the costs both economically and socially.

## 3.12. Additional factors

- 3.13. Thinking more broadly, to help reduce population displacement or ensure such movements of people are ordered and do not exacerbate international refugee problems, Australian overseas aid should be prioritised to investment in infrastructure to help manage climate change and mitigate greenhouse gas production.
- 3.14. Smart grids and integrated renewable energy sources will support a society and economy adapting to warming and climate change. For instance, a million dwellings (maybe 2.3 million people) have solar on roofs, which can also help reduce the peak of peak demand in Australian heat (17).
- 3.15. The national, regional and local transport systems have to be integrated into the design of measures to reduce greenhouse emissions.
- 3.16. Emissions from agriculture and food production, while more difficult than from energy sources to assess and measure, need to be addressed as part of the greenhouse gas reduction plan.
- 3.17. Because there is further warming built into the climate system because of the greenhouse gases already in the atmosphere, complicated by possible changes in aerosols and other drivers, funding for developing and implementing adaptation strategies is required in parallel to mitigation efforts.

# 4. Multi-partisan support

The PHAA considers that this pressing policy challenge requires the whole Australian Parliament to unite and calls on all political parties to take a multi-partisan approach to match the urgency of this serious health threat. We want sensible public discussion, and a reliable, politically independent, cutting edge source of information to guide us.

# **Conclusion**

PHAA supports urgent, strong, rapid yet planned reductions in greenhouse emissions to protect the health and wellbeing of Australians and other at risk populations. We are particularly keen that the following points are highlighted:

- The effects of unmitigated greenhouse gas emissions pose a substantial threat to health now and into the immediate and long term future.
- The scientific understanding of the situation as reflected in the Fifth IPCC Assessment Report suggests rapid action is required to move away from carbon emitting, fossil fuel based energy sources to minimise the degree of warming.
- An integrated, systematic policy and program approach is needed to reduce greenhouse gas emissions from all sectors.
- Health and economic co-benefits arise from proactive, coordinated action to reduce greenhouse gas emissions across multiple sectors.
- A multi-party, cross parliamentary approach that recognises the urgency of the situation and
  permits clear government leadership is necessary to address greenhouse gas emission
  reductions in a way that supports people through the changes that will be necessary so to
  minimise adverse psychological health effects.

The PHAA appreciates the opportunity to make this submission and would welcome the opportunity to present to an inquiry if this arises.

Please do not hesitate to contact PHAA should you require additional information or have any queries in relation to this submission.

Michael Moore BA, Dip Ed, MPH Chief Executive Officer Public Health Association of Australia Dr Peter Tait, FRACGP, MClimChng, Environment and Ecology SIG Convener Public Health Association of Australia

22 November 2013

# References

- 1. McMichael AJ. Climate Change in Australia: Risks to Human Wellbeing and Health, Austral Special Report 09-03S. Melbourne, Australia: The Nautilus Institute, RMIT2009.
- 2. Butler C, Harley D. Primary, secondary and tertiary effects of eco-climatic change: the medical response. Postgraduate Medical Journal. 2010;86:230-4.
- 3. Stern N. Review Report on the Economics of Climate Change 2006. Available from: http://www.hm-

treasury.gov.uk/independent\_reviews/stern\_review\_economics\_climate\_change/stern\_review\_report.cfm.

- 4. Confalonieri U, Menne B, Akhtar R, Ebi K, Hauengue M, Kovats R, et al. Human health. In: Parry M, Canziani O, Palutikof J, van der Linden P, Hanson C, editors. Climate change 2007: impacts, adaptation and vulnerability Contribution of working group II to the fourth assessment report of the intergovernmental panel on climate change. Cambridge, UK: Cambridge University Press; 2007.
- 5. Costello A, Abbas M, Allen A, Ball S, Bell S, Bellamy R, et al. Managing the health effects of climate change. The Lancet. 2009;373:1693-733.
- 6. Hanna EG, Kjellstrom T, Bennett C, Dear K. Climate change and rising heat: population health implications for working people in Australia. Asia-Pacific Journal of Public Health. 2011;23(2 suppl):14S.
- 7. McMichael A, Lindgren E. Climate change: present and future risks to health, and necessary responses. Journal of Internal Medicine. 2011;270(5):401-13.
- 8. Global Humanitarian Forum. Human Impact Report: Climate Change The Anatomy of a Silent Crisis. Geneva: United Nations2009.
- 9. Gleadow RM, Evans JR, McCaffery S, Cavagnaro TR. Growth and nutritive value of cassava (Manihot esculenta Cranz.) are reduced when grown in elevated CO2. Plant Biology. 2009.
- 10. Taub DR, Miller B, Allen H. Effects of elevated CO2 on the protein concentration of food crops: a meta-analysis. Global Change Biology. 2008 Mar;14(3):565-75.
- 11. Hughes L, McMichael T. The Critical Decade: Climate change and health. Canberra: Climate Commission, Commonwealth of Australia (Department of Climate Change and Energy Efficiency)2011.
- 12. United Nations. Report of the Conference of the Parties on its fifteenth session. In: United Nations Framework Convention Climate Change, editor. Copenhagen: United Nations; 2009.
- 13. IPCC. Climate Change 2013: The Physical Science Basis, The Working Group I contribution to the IPCC Fifth Assessment Report, Summary for Policy Makers. Geneva: Intergovernmental Panel on Climate Change 2013.
- 14. Meinshausen M, Meinshausen N, Hare W, Raper SC, Frieler K, Knutti R, et al. Greenhousegas emission targets for limiting global warming to 2oC. Nature. 2009;458.
- 15. Canadell JG, Le Quéré C, Raupach MR, Field CB, Buitenhuis ET, Ciais P, et al. Contributions to accelerating atmospheric CO2 growth from economic activity, carbon intensity, and efficiency of natural sinks. Proceedings of the National Academy of Sciences. 2007;104(47):18866.
- 16. Potsdam Institute for Climate Impact Research. Turn Down the Heat: Why a 4°C Warmer World Must be Avoided. Washington, USA: The World Bank2012.
- 17. Catchpole K. How do we get the next million solar roofs? The Conversation [serial on the Internet]. 31 July 2013: Available from: <a href="http://theconversation.com/how-do-we-get-to-the-next-million-solar-roofs-16515">http://theconversation.com/how-do-we-get-to-the-next-million-solar-roofs-16515</a> (accessed 31/7/13).