

# Submission on the National Greenhouse and Energy Reporting Amendment Bill 2020

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Healthy planet, healthy people.

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DEA welcomes the opportunity to comment on the National Greenhouse and Energy Reporting Amendment (Transparency in Carbon Emissions Accounting) Bill 2020 [https://www.aph.gov.au/Parliamentary\\_Business/Committees/House/Environment\\_and\\_Energy/GreenhouseReportingBill](https://www.aph.gov.au/Parliamentary_Business/Committees/House/Environment_and_Energy/GreenhouseReportingBill)

## Doctors for the Environment Australia

Doctors for the Environment Australia (DEA) is an independent, self-funded, non-Government organisation of medical doctors in all Australian States and Territories. Our members work across all specialties in community, hospital and private practices. We work to prevent and address the diseases - local, national and global - caused by damage to our natural environment. We are a public health voice in the sphere of environmental health with a primary focus on the health harms from pollution and climate change.

### Introduction

DEA strongly supports the inclusion of downstream or Scope 3 emissions (*Appendix 1*) in greenhouse gas (GHG) accounting. The health impacts of GHG emissions are not limited by international borders as all emissions drive climate change and increase global temperatures. It is in the public health interest of Australians to consider emissions from the entire life cycle of major projects. Such accounting is necessary to guide government's energy and emissions policies and to make meaningful evaluations of the full health and environmental impacts of major developments.

Climate change is now recognised as a public health emergency<sup>i</sup> and Australia's contribution to global emissions is significant. We are one of, if not the largest exporter of coal and gas in the world.<sup>ii, iii</sup> Australia's emissions when including Scope 3 as well as Scope 1 and 2, are nearly 5% of the world's total global GHG emissions<sup>iv</sup> yet we comprise only 0.33% of its population. It is disingenuous and dangerous to exclude Scope 3 emissions in accounting systems when Australians are already experiencing the health impacts of increased global temperatures.

The warnings about public health and climate change are loud and clear. Australia's devastating summer of heatwaves and bushfires has destroyed lives, livelihoods, homes, millions of hectares of Australian forest and habitat at an economic cost of billions. Nearly 80% of Australians were affected either directly or indirectly by the bushfires.<sup>v</sup> Months of bushfire smoke in Australia's cities has likely caused excess deaths and illness from heart and lung problems.<sup>vi, vii, viii, ix</sup> Climate change health impacts have become a lived reality for most Australians.

Australia's contribution to the global carbon footprint is growing as emissions from both domestic and fossil fuel export activities increase. The urgency for action on climate change is even more critical as global consequences outstrip predictions from highly sophisticated climate models.<sup>x</sup>

### DEA Recommendations

To best support public health, the recommendations that DEA submits to this Bill are:

1. Accept the amendments in full

2. Ensure transparency and accountability of emissions reporting obligations by including all emissions released over the full life cycle of projects which includes Scope 3 emissions.
3. Recognise Australia's significant contribution to global GHG emissions.
4. Ensure timely public access to clear and complete information about Australia's contribution to GHG (including Scope 3) emissions by tabling GHG inventory estimates in Parliament each quarter.
5. That authorities assessing major projects in Australia make a complete environmental health impact assessment which includes the full life cycle of the project including Scope 3 emissions.
6. That climate change is recognised as a major public health issue driven by rising GHG emissions and rising global temperatures.
7. That the Paris Agreement and other international treaties should not be relied upon as a tool for assessing GHG emissions for major projects.

## Health impacts of climate change

Major medical organisations in Australia - including DEA, AMA and most specialist medical colleges representing over 75% of medical practitioners - have declared a Climate Health Emergency. Health organisations around the world – including the American, British, Canadian, NZ and World Medical Association - have also declared the climate crisis a Health Emergency. <sup>xi</sup>

Increases in global temperatures have made Australia's droughts, heatwaves and bushfires more likely, more frequent and more severe. As temperatures increase without effective action to curb emissions, more extreme weather is predicted for the years and decades ahead. <sup>xii, xiii, xiv, xv, xvi</sup> Australia has a vested interest in the global response to climate change as it is one of the most vulnerable of developed countries to its effects.

The health risks arising from climate change have been well described by many, including the World Health Organisation the Lancet, and the United Nations. <sup>xvii, xviii, xix, xx</sup>

**Bushfires** are accompanied by a range of acute health impacts including heat stress, respiratory and heart problems, trauma, burns and death. There is an increase in the number of patients seeking emergency services during bushfires. Longer term impacts on mental health are significant. <sup>xxi</sup>

**Air quality.** Bushfires can have a disastrous impact on air quality in densely populated urban areas such as seen in this summer's bushfire season. Exacerbations of respiratory and heart disease and increased morbidity and mortality have been recorded. <sup>xxii, xxiii</sup> Many of our members have seen these effects in real time as patients attended our practices over the summer.

**Heatwaves** increase morbidity and mortality, especially amongst the elderly and vulnerable. <sup>xxiv</sup> The effect of heat stress will become more significant as more very hot days are expected with increases in global temperatures.

**Droughts, floods and extreme weather events** have critical and immediate impacts on health, but also our nation's ability to maintain agricultural productivity. Access to an

affordable, stable supply of clean water and healthy nutritious food is essential to maintain health. <sup>xxv</sup>

**Mental health.** Studies have revealed that climate change and associated disruptions will have a wide range of mental health effects on populations including depression, anxiety, substance abuse, domestic violence, post-traumatic stress disorder, and suicide. <sup>xxvi</sup>

Other health impacts include changing patterns of vector borne diseases, infectious diseases, loss of biodiversity, forced human migrations and conflict. <sup>xxvii</sup>

DEA's stance has always been that a healthy environment is vital for a healthy population and consequences of negative health have social and economic consequences for all.

## Australian planning laws and public health

The National Greenhouse and Energy Reporting Act 2007 is:

*"An Act to provide for the reporting and dissemination of information related to greenhouse gas emissions, greenhouse gas projects, energy consumption and energy production of corporations."*

<https://www.legislation.gov.au/Details/C2007A00175>

However, as it currently stands, the Act constrains the reporting framework related to GHG emissions by not transparently and completely reporting the full life cycle of emissions which includes Scope 3 emissions. With such incomplete information, policy formulation and the Australian public are not fully aware of the health consequences of major projects, especially those that export significant quantities of fossil fuels overseas.

As stated in the National Greenhouse and Energy Reporting Act 2007, Part 1 (3) Object:

*The Object of this Act is to introduce a single national reporting framework for the reporting and dissemination of information related to greenhouse gas emissions, greenhouse gas projects, energy consumption and energy production of corporations to:*

- a) *underpin the introduction of an emissions trading scheme in the future; and*
- b) ***inform government policy formulation and the Australian public; and***
- c) *meet Australia's international reporting obligations; and*
- d) ***assist Commonwealth, State and Territory government programs and activities; and***
- e) *avoid the duplication of similar reporting requirements in the States and Territories.*

***[Author's bold print]***

The suggested amendments clearly enhance the objects of the Act.

DEA also proposes that the consideration and reporting of the full life cycle of emissions of any major project in Australia are essential in making full environmental and health impact assessments. The requirement for such consideration is outlined in the Objects of the two following Acts.

- 1.) As stated in the Environment Protection and Biodiversity Conservation Act 1999:  
<https://www.legislation.gov.au/Details/C2019C00275>

The Object of this Act: (3)

- (a) **decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;**
- (b) **if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;**
- (c) **the principle of inter-generational equity—that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations; and**
- (d) **the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;**

**[Author's bold print]**

- 2.) And as stated in the National Environment Protection Measures (Implementation) Act 1998: <https://www.legislation.gov.au/Details/C2016C00577>

The Object of this Act: (3)

- (b) **to protect, restore and enhance the quality of the environment in Australia, having regard to the need to maintain ecologically sustainable development; and**
- (c) **to ensure that the community has access to relevant and meaningful information about pollution.**

**[Author's bold print]**

## International reporting of GHG emissions

While international collaborations since Kyoto have used the GHG accounting framework of Scope 1, 2, and 3 emissions to determine the obligations of individual countries towards emissions reduction, these treaties and agreements should not be misunderstood as a framework for environmental and health impact assessment of individual projects.

Australia's obligations regarding emissions reductions under the Paris Agreement are isolated to Scope 1 and 2, and significant emissions are only evaluated in that context. However, it is not only the Scope 1 and 2 emissions that will have an environmental and health impacts for Australia. The Paris Agreement and other international treaties should not be used as a basis for Australia's energy and emissions policies.

## Summary

Climate change is a public health emergency. As global emissions continue to rise there is an imperative to include downstream emissions in Australia's national inventory. Only by acknowledgement and full public disclosure of our country's significant contribution to global GHG emissions can there be progress in addressing this critical public health challenge. The health impacts of GHG emissions are not limited by international borders.

## Appendix 1

<http://www.cleanenergyregulator.gov.au/NGER/About-the-National-Greenhouse-and-Energy-Reporting-scheme/Greenhouse-gases-and-energy>

The greenhouse gases that are reported under the NGER Scheme include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulphur hexafluoride (SF<sub>6</sub>) and specified kinds of hydro fluorocarbons and perfluorocarbons.

When reporting emissions, energy production and energy consumption data, only those activities, fuels and energy commodities for which there are [applicable methods](#) under the NGER Scheme are reported.

Greenhouse gas emissions are measured as kilotonnes of carbon dioxide equivalence (CO<sub>2</sub>-e). This means that the amount of a greenhouse gas that a business emits is measured as an equivalent amount of carbon dioxide which has a global warming potential of one. For example, in 2015–16, one tonne of methane released into the atmosphere will cause the same amount of global warming as 25 tonnes of carbon dioxide. So, the one tonne of methane is expressed as 25 tonnes of carbon dioxide equivalence, or 25 t CO<sub>2</sub>-e.

Scope 1 greenhouse gas emissions are the emissions released to the atmosphere as a direct result of an activity, or series of activities at a [facility level](#). Scope 1 emissions are sometimes referred to as direct emissions.

- emissions produced from manufacturing processes, such as from the manufacture of cement
- emissions from the burning of diesel fuel in trucks
- fugitive emissions, such as methane emissions from coal mines, or
- production of electricity by burning coal.

### **Scope 1 emissions are specified under the NGER legislation and must be reported.**

Scope 2 greenhouse gas emissions are the emissions released to the atmosphere from the indirect consumption of an energy commodity. For example, 'indirect emissions' come from the use of electricity produced by the burning of coal in another facility.

Scope 2 emissions from one facility are part of the scope 1 emissions from another facility.

For example, a power station burns coal to power its generators and in turn creates electricity. Burning the coal causes greenhouse emissions to be emitted. These gases are attributed to the power station as scope 1 emissions. If the electricity is then transmitted to a car factory and used there to power its machinery and lighting, the gases emitted as a result of generating the electricity are then attributed to the factory as scope 2 emissions.

### **Scope 2 emissions are specified under the NGER legislation and must be reported.**

**Scope 3 greenhouse gas emissions are not reported** under the NGER Scheme, but can be used under [Australia's National Greenhouse Accounts](#).

Scope 3 emissions are indirect greenhouse gas emissions other than scope 2 emissions that are generated in the wider economy. They occur as a consequence of the activities of a facility, but from sources not owned or controlled by that facility's business. Some examples

are extraction and production of purchased materials, transportation of purchased fuels, use of sold products and services, and flying on a commercial airline by a person from another business

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<sup>i</sup> [https://climateemergency-notimeforgames.nationbuilder.com/climate-emergency\\_declarations](https://climateemergency-notimeforgames.nationbuilder.com/climate-emergency_declarations)

<sup>ii</sup> <https://www.climatecouncil.org.au/australia-worlds-largest-gas-exporter/>

<sup>iii</sup> <http://www.worldstopexports.com/coal-exports-country/>

<sup>iv</sup> <https://climateanalytics.org/latest/australia-on-track-to-become-one-of-the-worlds-major-climate-polluters/>

<sup>v</sup> <https://www.climatecouncil.org.au/resources/summer-of-crisis/>

<sup>vi</sup> Johnston FH. Extreme air pollution events from bushfires and dust storms and their association with mortality in Sydney, Australia 1994-2007. 2011. Environmental Research 111(6):811-6

<sup>vii</sup> Dennekamp M et al. Forest Fire Smoke Exposures and Out-of-Hospital Cardiac Arrests in Melbourne, Australia: A Case-Crossover Study. 2015. Environmental Health Perspectives 123,10:959-64

<sup>viii</sup> Haikarwal A. Impact of Fine Particulate Matter (PM2.5) Exposure During Wildfires on Cardiovascular Health Outcomes. 2015. Journal of the American Heart Association 4(7) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4608063/>

<sup>ix</sup> Morgan G et al. Effects of Bushfire Smoke on Daily Mortality and Hospital Admissions in Sydney, Australia. 2010. Epidemiology 21(1):47-55

<sup>x</sup> <https://www.dea.org.au/wp-content/uploads/2019/08/Greenhouse-Gas-Emissions-Assessment-Guidance-Submission-08-19.pdf>

<sup>xi</sup> [https://climateemergency-notimeforgames.nationbuilder.com/climate-emergency\\_declarations](https://climateemergency-notimeforgames.nationbuilder.com/climate-emergency_declarations)

<sup>xii</sup> [https://www.climatecouncil.org.au/wp-content/uploads/2019/12/report-dangerous-summer\\_V5.pdf](https://www.climatecouncil.org.au/wp-content/uploads/2019/12/report-dangerous-summer_V5.pdf)

<sup>xiii</sup> <https://www.climatecouncil.org.au/resources/bushfire-briefing-paper/>

<sup>xiv</sup> <https://www.climatecouncil.org.au/resources/climate-change-extreme-weather/>

<sup>xv</sup> <https://www.csiro.au/en/Showcase/state-of-the-climate>

<sup>xvi</sup> <http://media.bom.gov.au/social/blog/2280/a-hot-and-dry-australian-summer-means-heatwaves-and-fire-risk-ahead/>

<sup>xvii</sup> [https://www.who.int/health-topics/climate-change#tab=tab\\_1](https://www.who.int/health-topics/climate-change#tab=tab_1)

<sup>xviii</sup> [https://www.ipcc.ch/site/assets/uploads/2018/02/AR5\\_SYR\\_FINAL\\_SPM.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/AR5_SYR_FINAL_SPM.pdf)

<sup>xix</sup> <https://www.lancetcountdown.org/2019-report/>

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<sup>xx</sup> [https://www.dea.org.au/wp-content/uploads/2017/02/DEA\\_Climate\\_Change\\_Health\\_Fact\\_Sheet\\_final.pdf](https://www.dea.org.au/wp-content/uploads/2017/02/DEA_Climate_Change_Health_Fact_Sheet_final.pdf)

<sup>xxi</sup> <https://www.dea.org.au/bushfires-and-health-in-a-changing-environment-fact-sheet/>

<sup>xxii</sup> Dennekamp M, Abramson MJ. The effects of bushfire smoke on respiratory health. 2011. *Respirology* 16(2):198-209

<sup>xxiii</sup> Johnston FH. Bushfires and Human Health in a Changing Environment. 2009. *Australian Family Physician* 38: 720–724

<sup>xxiv</sup> [https://www.dea.org.au/wp-content/uploads/2020/01/DEA-Fact-Sheet\\_HeatwavesWEB.pdf](https://www.dea.org.au/wp-content/uploads/2020/01/DEA-Fact-Sheet_HeatwavesWEB.pdf)

<sup>xxv</sup> [https://www.dea.org.au/wp-content/uploads/2019/10/DEA11231-Food-&-Agriculture-Fact-Sheet\\_web-final.pdf](https://www.dea.org.au/wp-content/uploads/2019/10/DEA11231-Food-&-Agriculture-Fact-Sheet_web-final.pdf)

<sup>xxvi</sup> Climate change and mental health: risks, impacts and priority actions, Hayes K. et al. *International Journal of Mental Health Systems* 2018 12:28 <https://ijmhs.biomedcentral.com/articles/10.1186/s13033-018-0210-6>

<sup>xxvii</sup> [https://www.dea.org.au/wp-content/uploads/2017/02/DEA\\_Climate\\_Change\\_Health\\_Fact\\_Sheet\\_final.pdf](https://www.dea.org.au/wp-content/uploads/2017/02/DEA_Climate_Change_Health_Fact_Sheet_final.pdf)