

Hydraulic Fracking Taskforce  
GPO Box 4396  
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## **SUBMISSION TO HYDRAULIC FRACKING TASKFORCE, NORTHERN TERRITORY**

The point of my submission is simple – development of gas fields in the Northern Territory should **not** go ahead under any circumstances, regardless of the level of fugitive emissions from the hydraulic fracking operations. The basis for this recommendation is that any new fossil fuel development – coal, oil or gas – is incompatible with the goal of the 2015 Paris climate agreement that aims to limit the rise in global temperature to well below 2.0°C above pre-industrial levels and to make every effort to limit the rise to 1.5°C.

1. Australia is a signatory to the 2015 Paris climate agreement, and thereby has pledged to do everything it can to do its fair share to meet these global targets.
2. The ‘carbon budget approach’ is a scientifically robust framework for determining the amount of carbon dioxide that can be emitted from 2015 until no more can be emitted (i.e., the global economy must have eliminated fossil fuels and moved to non-emitting energy sources). That is, there is a limited amount of fossil fuels that can be burned to remain within the Paris targets (IPCC 2013). The budget varies depending on the probability of meeting the target one wishes to accept. The higher the probability of meeting the target, the more stringent is the budget. Here I take a 50:50 probability of meeting the Paris 2.0°C target, which gives the most generous carbon budget. However, **existing** fossil fuel reserves are around three times higher than this budget and so most of these reserves must be left in the ground, unburned, if we are to meet the Paris 2.0°C target.
3. An economic analysis of the fossil fuels that can still be burned consistent with this generous carbon budget has been carried out (McGlade and Ekins 2015). The results of this analysis are sobering. The implications for gas field development are that 50% of existing gas reserves must be left in the ground, unexploited. No new gas development – either conventional or unconventional – is consistent with meeting the Paris climate agreement. McGlade and Ekins are absolutely clear on the point that no new gas (or other fossil fuel) development is consistent with the Paris agreement:

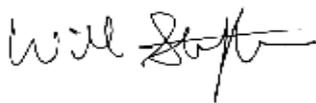
*“Our results show that policy makers’ instincts to exploit rapidly and completely their territorial fossil fuels are, in aggregate, inconsistent with their commitments to this temperature limit. Implementation of this policy commitment (the 2.0 °C limit) would also render unnecessary continued substantial expenditure on fossil fuel exploration, because any new discoveries could not lead to increased aggregate production.”*

Thus, exploitation of any new Northern Territory gas fields is inconsistent with the Paris 2.0°C target.

4. Fugitive emissions play no role in this analysis. In fact, the assumption in carbon budget analyses is that fugitive emissions are 0% and the only emissions arise from the combustion of the gas itself. Thus, in essence, the fugitive emission issue is a red herring. The primary concern is the combustion of the gas itself and the greenhouse gas emissions that result from this combustion, irrespective of any additional emissions associated with the hydraulic fracking operation.

The bottom line is clear. This development is incompatible with Australia's obligations as a signatory to the Paris climate agreement of 2015. It should not go ahead under any circumstances (Steffen 2015).

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Will Steffen', with a stylized flourish at the end.

Will Steffen  
Emeritus Professor, The Australian National University  
Councillor, Climate Council of Australia

**References:**

IPCC (2013) Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Stocker TF, Qin D, Plattner G-K, Tignor M, Allen SK, Boschung J, Nauels A, Xia Y, Bex V and Midgley PM (eds)). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp 1-30.

McGlade C and Ekins P (2015) The geographical distribution of fossil fuels unused when limiting global warming to 2.0°C. *Nature* 517: 187-190. doi:10.1038/nature14016

Steffen W (2015) Unburnable carbon: Why we need to leave fossil fuels in the ground. Climate Council of Australia, 36pp