

CLIMARTE

ARTS FOR A SAFE CLIMATE

16 January 2014

Committee Secretary
Senate Standing Committees on Environment and Communications
By email: ec.sen@aph.gov.au

RE: Submission to the inquiry into the Abbott Government's Direct Action Plan and the Abbott Government's failure to systematically address climate change

Dear Sir/ Madam,

Thank you for welcoming our submission into the Abbott Government's failure to respond to the urgency of the climate emergency with effective policies.

It was the UK Government's 700-page *Stern Review on the Economics of Climate Change* (2006) — led by Lord Stern of Brentford (Sir Nicholas Stern) — that first rocked the establishment by determining that environmental assets were absolutely critical to the social and economic wellbeing of civilisation and hence the environmental costs of all activities had to be factored into the economy. Acknowledging that economies would have to adjust to this change, the Stern Review strongly argued that the results of not taking action, and experiencing further effects of climate change, would be “**horrendously expensive**”.

The scientific evidence is now overwhelming: climate change presents very serious global risks, and it demands an urgent global response... Climate change presents a unique challenge for economics: it is the greatest and widest-ranging market failure ever seen.

Sir Nicholas Stern¹

It is notable that at the time of his appointment, Stern — the former Chief Economist of the World Bank — was known for specifically not being environmentally minded. Obviously his views altered radically as a result of his intensive research. In recent years Stern has claimed that his review significantly underestimated the risks and costs of climate change. As is becoming increasingly evident through scientific findings, the **Earth's carbon budget** is already blowing out. Even if we halt all greenhouse emissions this very moment we will have to deal with the lethal effects of our legacy emissions. It's a simple sum of physics: we cannot afford to continue polluting.

In its Fifth Synthesis Report (2013) the United Nations Intergovernmental Panel on Climate Change (IPCC) found that: “**Warming of the climate system is unequivocal**, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased. Each of the last three decades has been

successively warmer at the Earth's surface than any preceding decade since 1850. In the Northern Hemisphere, 1983–2012 was likely the warmest 30-year period of the last 1400 years...Human influence on the climate system is clear. This is evident from the increasing greenhouse gas concentrations in the atmosphere, positive radiative forcing, observed warming, and understanding of the climate system."² In response to the findings Thomas Stocker, the Co-Chair of IPCC Working Group I said: "Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require **substantial and sustained reductions** of greenhouse gas emissions."³

"Australia exports coal and sets atmospheric carbon dioxide goals so large as to guarantee destruction of much of the life on the planet..."

*"It is moral turpitude, depravity, to build more coal-fired power plants or open coal mines, knowing what we know now...It was one thing to dig coal when we didn't know the consequences, but quite another thing today."*⁴

Professor James Hansen,
Director NASA Goddard Institute for Space Studies (1981-2013)

Meanwhile, in mid 2012 —following an intensive research effort involving a dozen scientists — Professor Richard Muller, the long-time ally of the deniers, concluded that global warming was real and that the prior estimates of the rate of warming were correct. In Muller's words: " I'm now going a step further: Humans are almost entirely the cause...Our results show that the average temperature of the earth's land has risen by two and a half degrees Fahrenheit over the past 250 years, including an increase of one and a half degrees over the most recent 50 years. Moreover, it appears likely that essentially all of this increase results from the human emission of greenhouse gases...These findings are stronger than those of the Intergovernmental Panel on Climate Change."⁵

There is no debate about the causes, consequences and solutions to address dangerous climate change, so why would the Abbott Coalition Government now seek to dismantle the necessary — and still pathetically meagre in relation to the challenge — climate protection policies required to de-carbonise Australia's pollution intense economy? To be more specific, why remove the new market and regulatory incentives to reward zero pollution energy alternatives and energy efficiency technologies while penalising dirty, greenhouse gas emissions intense energy systems? Given the evidence of dangerous climate change, the response of any responsible and logical government would be to urgently, rapidly increase the costs associated with polluting so as to hasten the transition to safe, clean and secure renewable energy alternatives.

Our last summer broke 123 extreme weather records in 90 days. Last year was Australia's hottest year on record.⁶ It hosted the hottest September on record, and lethal bushfires were already ravaging New South Wales in October. Australia's temperature records show that heat records are now happening three times more often than cold records, and that the number of hot days across Australia has "more than doubled". Further to this, the duration and frequency of heatwaves increased between 1971 and 2008, and our hottest days have become hotter. Future heatwaves are predicted to last up to three days longer on average, happen more frequently, and the highest temperatures will rise further.⁷ With regards to the 5 per cent emission reduction target proposed by the Abbott Government, it would be absurd to waste readers' time by even acknowledging it as a legitimate response to the climate emergency we are in.

The green economy is the future economy so why take Australia backwards?

In recent years investments in renewable energy capacities and manufacturing have grown strongly and steadily, up from just \$30 billion in 2004 to more than US\$244 billion in 2012 (multiplied eight times).⁸ Since 2008 each year more money has been flowing into new renewable energy capacity than in new fossil fuel capacity⁹. This happened even while fossil fuel energy sources continue to enjoy massive public subsidies, a virtual monopoly of the energy market and the rights to freely pollute. Even in the heat of the Global Financial Crisis, the renewable energy industry grew by 32 per cent per annum worldwide. With such serious money now being injected into alternative technologies, all indicators are suggesting that a major transformation in the way the world makes and uses energy is well on its way.

With only a fraction of our renewable energy resources, countries such as Germany, Spain, China, USA, and Japan, to name a few, are enjoying the **social and economic benefits** of a burgeoning solar energy industry. As a result of a decade of feed-in-tariffs, solar power systems in Germany generated more than 18 billion kilowatt (KW) hours of electricity during 2011.¹⁰ Over just 12 days during December 2011, Germany installed more than three GW of solar PV.¹¹ This represents more solar power than Australia has installed in its entire history. In terms of the social and economic benefits to be gained, as a direct result of introducing a suite of policy measures to encourage zero emission energy generation, by 2012 Germany had created more than 382,000 jobs in renewable energy and energy efficiency industries with projections up to 600,000 by 2030.¹²

Turning to China, in mid 2011 a national feed-in tariff was introduced for solar projects and the official growth forecasts for solar energy have nearly doubled to 50 gigawatts (GW) by 2020. Some analysts are conceding that, with the current rate of growth, and the quickening pace at which the cost economies are converging, China could be producing as much as 100GW of energy from solar PV by 2020.¹³ In many other places around the world solar energy is generating substantial new investment and new jobs in rural and regional areas while stabilising local greenhouse gas emissions and increasing **energy security**.

In May 2011 the IPCC (aforementioned) published a special report for policymakers, demonstrating that by 2050 nearly 80% of the world's energy supplies could be met by renewable energy.¹⁴ According to Beyond Zero Emissions peer reviewed report *Zero Carbon Australia 2020 Stationary Energy Plan*, within a decade Australia could change its stationary electricity system from polluting energy to zero emission energy using off the shelf renewable energy and energy efficiency technologies, all readily available now. The report reveals that such a transition would: 1) be feasible, 2) be affordable, 3) create an estimated 140,000 new jobs in regional economies (where they are needed most), and 4) ensure energy security in Australia for at least the next 70 years. It would use a dozen concentrated solar thermal plants in sites around Australia to provide approximately 60 per cent of our electricity, with wind power providing the remaining 40 per cent, and with 2 per cent coming from biomass and hydro as contingency. The cost to construct a zero emission energy infrastructure to secure our energy supplies for the next 70 or so years, will be around \$37 billion a year over the next decade, which is 3 to 3.5 per cent of GDP or \$8 per household per week. As its authors readily claim, the *Zero Carbon Australia 2020 Stationary Energy Plan* is not the only path to a low carbon economy but it demonstrates that it can be done. Also, it is worth noting that nearly all of the more than 50 experts who contributed to the plan have fossil fuel energy based backgrounds but would prefer to work with clean energy instead.

In 2013, a Federal government commissioned report by the Australian Energy Market Operator revealed that it was indeed feasible to operate the entire eastern states' National Electricity Market using only renewable energy sources.¹⁵ Using a variety of renewable energy sources coming in from various regions is already proving to be a successful model for the fast evolving German grid.¹⁶ Just as we saw radical changes in telecommunications and information industries, systems analysts are tipping the emergence of new companies that will specialise in integrating distributed energy resources coming in from many sources and locations, smooth and match supply and demand quickly and efficiently. Aware of the immense commercial opportunities, communication network specialists in particular are already circling the energy supply and distribution space.¹⁷ As we have seen occur in other places, Australia will gain demonstrable social and economic benefits, while quantifiably reducing greenhouse gas emissions through the displacement of dangerous fossil fuel based energy.

Logically, if air conditioners were required to be powered using solar energy then we would have no more blackouts or brownouts during heat waves. And through the merit order, electricity prices overall would come down more than enough to cover the costs of the feed-in tariffs required to enable the widespread adoption of renewable energy. This is already happening in Germany.

Unless we move quickly to develop our rich zero carbon energy resources, our reliance on coal-fired electricity will not only continue to force dangerous climate change but will also ensure that our economy falls behind because everything coming out of Australia will carry an enormous carbon footprint at a time when **world economies are transitioning** away from polluting technologies and practices. There have already been reports from China, quoting Wu Yin, the deputy head of the government's National Energy Administration, saying that China is looking to impose an absolute cap on coal energy consumption as early as 2015 – an innovative twist on global climate change policies that have so far included caps on emissions, Feed-in Tariffs, and renewable energy targets.¹⁸

Health Impacts of fossil fuel use vs solar energy

Pollution from coal combustion has been directly linked to serious diseases including asthma, lung cancer, heart disease, and stroke. It interferes with lung development, increases the risk of heart attacks, and compromises intellectual capacity.¹⁹ Of major concern is that the particulate (that is very tiny) nature of dust pollution (from coal mining) is fine enough to enter the bloodstream through the lungs. Elevated rates of mortality, lung cancer and chronic heart, lung and kidney disease have all been reported among people living near coalmines.²⁰ The calculation is that for every ten micrograms increase in the concentration of dust pollution from coal mining, the findings show a half-a-per cent increase in the mortality rate.²¹ Clearly, it is highly irresponsible for any government not to immediately start phasing out the fossil fuel use. We submit that an attractive Feed-in Tariff for renewable energy could assist in redirecting investments in dirty fossil fuel based energy systems towards safe, zero emission solar technologies.

Meeting 21st Century Challenges

If Australia is to maintain living standards and quality of life for current and future generations, we must **immediately commence a rapid transition away from 'old' centralised and highly polluting fossil fuel based infrastructure and energy sources towards 'new' decentralised and more sustainable alternatives**. In addition to drastically reducing GHG emissions, the adoption of

renewable energy sources located close to end power users will ensure a more **robust and secure power supply** than the current one. This is because centralised power supplies are more vulnerable to major disruptions caused by accidents, fires and storms (which are predicted by scientists to become even more frequent and ferocious²²), accidents and/or deliberate attacks.

We know the big test for Australia, and indeed all places around the world, will be how to manage the **twin challenges of climate change and peak oil**. Climate change is here and our environment is already showing the predicted signs due to excessive greenhouse gas emissions in our atmosphere, as clearly demonstrated by our nation's recent toll of tragic events. Further, the era of cheap crude oil for transportation is gone. Given the tyranny of distance and our increased vulnerability to draught and flooding, it is even more critical for Australia to prepare for the changed economic and ecological circumstances that will be part of life in the 21st Century.

Given the billions Australians are now spending to mop up after successive climate related natural disasters, alternative technologies are looking cheaper and more attractive by the minute.

A safe climate and healthy environment are the **foundations** on which all else we know and value depends. The most cited argument for slow and inadequate responses to climate change and peak oil, are driven by a combination of ignorance of the current science, greed by those with vested economic interests, fear of change and the failure to recognise the bountiful economic opportunities that are ready to be taken up. Climate deniers typically fall into one or more of the categories above. Yet, as previously stated, with the adoption of renewable energy as a much greater proportion of our energy mix — in addition to mitigating catastrophic global warming — there will be the added benefit of a boost to our local economies and **new, more secure and sustainable 'green collar' jobs in Australia**. Arguably the most effective policy tool to achieve a rapid, widespread uptake of renewable energy would be to offer gross metered Feed-in Tariffs of around 60c/kWh to reward generators for the safe, secure, zero emission energy they produce.

Come clean: end the misleading and deceptive rhetoric

The Liberal/National party Opposition was offered two seats on the Gillard Government's Multi Party Climate Change Committee. However, under Tony Abbott's leadership, the Coalition refused the invitation and subsequently attacked the committee at all stages of its development and proceedings. Abbott's aggressively negative position on the carbon tax was disingenuous given that he was on the public record for arguing that a direct 'charge' on emissions would be the most simple and fair approach to the pollution problem.

The Howard government proposed an emissions trading scheme because this seemed the best way to obtain the highest emission reduction at the lowest cost... On the other hand, artificially created markets could be especially open to manipulation... For this reason, many now think that a carbon charge scheme directed at the least environmentally efficient producers would be simpler and fairer than an emissions trading scheme.

Given its pro-business, free market foundation, the Coalition's choice to ignore market mechanisms required to effectively address gross market failures identified in Australia's modern market economy is monumentally contradictory. By scrapping the market signals necessary to bring in cutting edge renewable energy technologies, the Abbott Government is protecting dirty, entrenched transnational owned and controlled fossil fuel systems. This is at the direct expense of zero emission energy producers that generate jobs and investment in local economies.

Further to this, why are Australians being told that it is in their best interests for their energy systems to be privately owned when the system is poorly regulated and rife with perverse incentives supporting entrenched polluting fossil fuel energy producers? Is there any energy system in the world that is entirely unregulated and if so, in whose interests does this serve? Given what has occurred with deregulated financial markets, on what grounds can decision makers claim that no price on carbon pollution — in an otherwise under regulated energy market — will best serve Australia's current energy consumers let alone future generations? How could any decision maker argue that having no price penalties on greenhouse gas emissions will provide the incentives required to transition Australia's energy system away from highly polluting fossil fuel energy to zero emission energy sources in time to prevent catastrophic impacts from climate change? By any measure, a faith in the invisible hand of the market to preserve our safe climate and environment, while delivering us safe, secure energy systems is simply preposterous.

"The strange thing about the carbon tax was that emissions went up, not down, from 560 to 637 million tonnes" announced Australia's then new Federal Environment Minister Greg Hunt (first week of October 2013). However, what Hunt knew and yet failed to mention was that the same modeling projects that without a carbon price at all emissions would go up much further.²³ Another blindly obvious case of misleading the public has been the Coalition's ongoing claims that the carbon price is to blame for rising electricity prices. In fact the lion's share of electricity price rises have been the result of a perverse incentive for network businesses to spend more than they need to on their assets — the poles and wires — and price gauging.²⁴ As in the previous example, Coalition policy makers well understand that they are deceiving the public. Surely if the former Liberal Party leader Malcolm Turnbull understands the issue others do too. "Over the last five years or so in the east coast capital cities, electricity prices have gone up by about 50 per cent. This is pre the carbon tax. That has been largely a function of the investment in distribution and transmission, in poles and wires", said Turnbull in August 2012.²⁵

Call us all Adam or it's glaringly obvious that the Abbott Government's agenda is to bring back the free ride for polluting industries quick smart. Not content with scrapping the carbon tax (it's a levy, let's be honest) that is clearly grossly meagre relative to the task of de-carbonising Australia's pollution intense economy, the Abbott Government seeks to dismantle our nation's independent climate regulation and R & D bodies as fast as possible regardless of enacted laws. The Direct Action policy is nothing but a veiled attempt at turning Australia backwards to the Howard Government days when members of the 'Greenhouse Mafia' (GHM) shamelessly bragged about their role in creating Australia's 'La Carbo Nostra' and 'Polluters Paradise' culture as they themselves referred to it during interviews with former Liberal Party member Guy Pearse.²⁶

Burn the Abbott Government's fig leaf Direct Action Plan: reducing emissions requires effective climate policies

Presuming that the Abbott Government will select its own advisors for its climate protection policies, we suggest it appropriate to include people with expertise in climate science, renewable energy and energy efficiency. Meanwhile, there is already a suite of complementary policy measures that applied simultaneously are proven to quickly displace polluting energy and achieve greater energy security, including:

- An immediate end to all fossil fuel subsidies, estimated at more than \$12 billion annually in Australia and around \$1.9 trillion globally per year.²⁷ We submit that this funding ought to

- be redirected into R&D into zero emission and energy efficiency technologies;
- Gross metered feed-in tariffs paying 60c/kWh to support all zero emission energy generation. To differentiate between smaller private systems designed to displace polluting energy and larger energy retailers aiming to profit from electricity generation, it is also appropriate for the expenses of installation for the former to be made tax deductible;
 - Increase the mandatory renewable energy target to give investors the certainty and stability they need to plan. Based on reports previously cited, it is reasonable to expect Australia to be powered by at least 90 per cent renewable energy electricity by 2030;
 - A commitment to support a levy on greenhouse gas emissions, one that reflects the true costs of the long term damage caused by burning fossil fuels; and
 - Significant investment in forests and sustainable agriculture to draw down and sequester excess carbon out of the atmosphere and store it in sustainable sinks.

Further, we stress the point that we only have to look at a few recent extreme weather events in Australia and around the world to appreciate the dangers associated with worsening climate change.

In concluding we wish to emphasize that this submission, along with numerous others located at <http://climarte.org/submissions/> has been prepared to voice the deep climate concerns of private citizens associated with Climarte, an independent, non profit advocacy group representing more than 1,000 people. In other words, we have no vested interests, nobody is paying or compensating me in any way and there is nothing covert about Climarte's access to our democratically elected representatives.

Thank you for your attention to this submission. We would welcome the opportunity to discuss any part of it with you.

Yours faithfully,

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³ http://www.ipcc.ch/news_and_events/docs/ar5/press_release_ar5_wgi_en.pdf

⁴ <http://www.guardian.co.uk/environment/2009/aug/14/coal-energy> 'Opencast coal mine surge weakens UK's authority at climate change talks' by Severin Carrell, *The Guardian*, 14 August 2009

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