



9 November 2016

Committee Secretary
Senate Standing Committee
PO Box 6100
Parliament House
Canberra ACT 2600

Submission re Retirement of coal fired power stations

Dear Sir/ Madam,

Thank you for the opportunity to provide a submission regarding this critically important issue.

For decades mounting expert, peer-reviewed evidence from all independent science agencies all around the world has been showing that human activities that emit greenhouse gas in to the atmosphere is: 1) directly causing global warming, and 2) that if humans fail to transition global economies to zero emissions fast enough then human civilizations will collapse.

The key findings of the Fifth Synthesis Report of the Intergovernmental Panel on Climate Change (aka the IPCC's Fifth Assessment Report) are that:

Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history. Recent climate changes have had widespread impacts on human and natural systems. {1}

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, and sea level has risen. {1.1} ¹

In fact, we are now losing polar ice at alarming rates. For example, the Totten Glacier in the Antarctic is losing an amount of ice "equivalent to 100 times the volume of Sydney Harbour every year."² This year the carbon dioxide monitoring station at Mauna Loa, Hawaii, has reported that atmospheric carbon dioxide has permanently crossed the symbolic 'red line' of 400 parts per million.³ The speed and scale at which greenhouse gas emissions are rising is like nothing the Earth has experienced before. By any measure, this is unthinkable dangerous territory.

Some years ago now one the world's most respected climate scientist, NASA Goddard Institute for Space Studies' Director, Dr James Hansen warned that continued coal use will result in "*catastrophic climate change and a 'transformed planet'*".⁴ Yet, old and inefficient coal-fired electricity plants still largely generate Australia's electricity needs and our current environment protection laws are obviously not capable of transitioning our economy away from dirty fossil fuels towards zero pollution, renewable energy alternatives.⁵ By every measure, the Australian government's response to the climate emergency we face is woefully inadequate. For the sake of

current and future generations it is vital that Australia join the world's nations to halt the rise of global greenhouse gas emissions and sequester legacy emissions as quickly as humanly possible. With its so-called 'advanced' status and **enviable renewable energy resources (aka solar radiation and strong 'Roaring Forties' winds)**, Australia has no excuse for remaining one of the world's largest per capita polluters.

Retiring coal fired power stations, along with all other fossil fuel burning plants, will hasten Australia's transition to the jobs rich Sustainable Economy

With only a fraction of our renewable energy resources, countries such as Denmark, Germany, Spain, USA, Austria and Sweden, to name a few, are enjoying the **social and economic benefits** of a burgeoning, multi-billion dollar renewable energy industry, largely driven by determined climate protection policies and laws to back them up. In many places around the world strong emission reduction targets combined with ambitious renewable energy targets are already generating new investment and new jobs in rural and regional areas while stabilising local pollution levels and increasing **energy security**.

In terms of wind energy, wind power led all new power generation in 2015. China now has 145,362MW and the US has 74,471MW installed wind capacity.⁶ As for solar energy — including household solar photovoltaic (PV) as well as utility-scale PV power plants — with costs falling and efficiencies soaring, the global industry continues its meteoric rise, creating millions of jobs in local economies.

In places with climate friendly policies, renewable energy industries are exceeding people's expectations. Germany has more than 380 000 people employed in its clean-energy industry, and this figure could rise above 500 000 by 2020.⁷ Meanwhile, more than 50 per cent of Germany's renewable energy is community-owned, which makes the business of generating and distributing the energy and the profits far more transparent and democratic.⁸ Globally, there are now more than 8.1 million people employed in renewable energy.⁹

Why would a government so fiercely defend old, polluting power generation when its plain as day that the adoption of advanced zero emission technologies will reduce pollution and stimulate local jobs and growth in the sustainable, clean-energy sector? The urgent need to respond to the climate emergency aside, why would any government not strongly support a new industry that has well proven to **create tens of thousands of new jobs and generate tens of billions of dollars in local economies** where it is supported with responsible policy measures?

As the host of some of the most polluting coal fired power stations in the world, Australia must clean up its act quickly. Unless we move now to radically reduce our greenhouse gas emissions by transitioning to zero pollution energy resources, our reliance on fossil fuels 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 dirty technologies and practices. This is an opportunity to turn coal-affected regions like Victoria's Latrobe Valley into world class R&D hubs for sustainable technologies.

Given decades of peer reviewed science demonstrating that climate change is real and largely (if not yet proven to be entirely) caused by human activities that emit greenhouse gas, why are we still burning fossil fuels?

It is well known that the revolving door between polluting industries and government decision makers is insidious and has prevented the world from addressing the urgent threat of climate change. What else could explain the International Monetary Fund's findings that in 2015 global fossil fuel subsidies amounted to US\$5.3tn. This translates to \$10m a minute and is greater than the combined health spending of all the world's governments.¹⁰

Since the *Four Corners* episode 'The Greenhouse Mafia' was aired in early 2006, many Australians have become increasingly aware of the depth of corruption between polluters and our decision makers. Could this have anything to do with the LNP government's determination to privatise what remains of Australia's independent media?

This year research into political donations found that in the past three years fossil fuel companies have donated \$3.7 million to major political parties and received industry subsidies amounting to \$7.7 billion. In terms of return on investment, for every dollar invested, polluters have received \$2,000 of Australian taxpayers' money in subsidies.¹¹ Meanwhile, to avoid declaring the source of political donations, special fundraising clubs or "associated entities" like the Higgins 500 Club, Kooyong 200 Club, Team 200 Club, Warringah Club and Menzies 200 Club have for years been siphoning millions of dollars to the LNP. Not exactly money laundering but does this sound like a healthy democracy? Could it explain why LNP leaders, including Prime Minister Turnbull, were so quick to blame wind power for storms so ferocious that 22 transmission lines collapsed?¹²

Why is the Australian government content failing to do its share of 'heavy lifting' to address the most urgent threat that humanity has ever faced, failing its own people and the international community?

Without including our nation's massive fossil fuel exports, Australians are among the worst greenhouse gas emitters in the world. In fact, experts argue that when fossil fuel exports are included our per capita greenhouse emissions are three times the official figures. For an advanced, so-called democratic nation this is beyond disgraceful.

A key enabler of Australia's self-titled 'Greenhouse Mafia'—whose members proudly boast of their role in making our nation a 'Polluters Paradise'¹³— is the Institute for Public Affairs (IPA). And independent so-called 'think tank', the IPA enjoys deductible gift recipient (DGR) status and, through influential members and donations, has long-held strong ties with the Liberal Party (itself a beneficiary of tax-deductible campaign donations) to whom it makes policy recommendations.¹⁴

In a pre-election 2013 keynote speech at the IPA's 70th anniversary (a black tie gala event held at Victoria's National Gallery of Victoria — including special guests media tycoon Rupert Murdoch, whose father helped found the IPA, mining magnate Gina Rinehart and Cardinal George Pell, all of whom support climate denialism), Tony Abbott said: "So ladies and gentlemen that is a big 'yes' to many of the 75 specific policies you [the IPA's Executive Director, John Roskam who was sitting before him] urged upon me."¹⁵ At the top of the IPA's wish list was scrapping all climate protection laws (including the carbon price and Renewable Energy Target) and dismantling all independent agencies established to promote zero emission energy alternatives to dirty and dangerous fossil fuels (ie Clean Energy Finance Corporation, Climate Change Authority and the Australian Renewable Energy Agency). To make the job of stripping Australians of their natural assets easier, by silencing dissent, the IPA has long been lobbying for a fire-sale of Australia's independent news broadcasters, the ABC and SBS to friendly corporate media interests.¹⁶

Although the IPA has always been notoriously secretive about its funding base, support is known to have come from major mining (ie BHP-Billiton and Western Mining), chemical (ie Monsanto), tobacco (ie Phillip Morris), forestry (ie the former Gunns) and oil and gas companies (ie Shell, Esso, Caltex and Woodside Petroleum).¹⁷ The IPA enjoys DGR status as an 'Approved Research Institute' on the grounds that it engages in "scientific research which is, or may prove to be, of value to Australia".

At a glance it's obvious that corporations have benefited enormously from the IPA's public policy offering. For instance, in 2014 it came to light that Australia's largest coalminer, Glencore Coal International Australia Pty Ltd paid almost zero tax on income of \$15 billion made over the previous three years.¹⁸ During this period, Glencore's Australian born, Swiss based Chairman saw his personal wealth rise nearly 20 per cent to \$6.6 billion on the back of his Glencore shares.¹⁹ Both BHP and Rio Tinto are known to be squirreling profits to tax havens offshore in order to avoid paying taxes on the profits they are making through the exploitation of Australia's non-renewable natural resources.²⁰ It's worth noting here that, after talking tough re cracking down on corporate tax avoidance, Joe Hockey and the then Assistant Treasurer, Arthur Sinodinos, announced they would not legislate Gillard's tax reform package to abolish deductions (under section 25-90 of the Income Tax Assessment Act 1997) that would help combat tax minimisation by global corporations, at a projected benefit to the taxpayer of \$600 million.²¹ The justification was that it would impose 'unreasonable compliance costs on Australian companies' with subsidiaries offshore.

This all explains why the Abbott and Turnbull LNP Federal governments have systematically dismantled Australia's environment protection laws and taken a wrecking ball to what was an emerging sustainable, smart economy. For during the roughly two years that the Gillard government's Clean Energy Future legislation (including a carbon price) determined climate policies, tens of thousands of new jobs and tens of billions of dollars in new investments were generated in local more sustainable economies while emissions declined across electricity generation, agriculture, industrial processes and the transport sector.²² Any reasonable person would have to ask: why kill laws that were achieving their goals? Why kill Australia's chances for sustainable progress? Why fail the international community?

Retiring coal fired power stations, along with all fossil fuel burning plants, will help address toxic pollution

Beyond releasing dangerous global warming greenhouse gases into the atmosphere, burning fossil fuels results in highly toxic local pollution levels. For instance, burning coal results in toxic ash that typically contains arsenic, lead, mercury, cadmium, chromium and selenium, as well as aluminium, antimony, barium, beryllium, boron, chlorine, cobalt, manganese, molybdenum, nickel, thallium, vanadium, and zinc. As a result of these toxins, coal ash has been linked to a range of cancers, heart, lung, kidney and respiratory diseases, gastrointestinal problems, birth defects, impaired bone growth in children, nervous system disorders as well as developmental delays and behavioural problems. In short, exposures to coal ash can potentially damage all major organ systems, causing serious illness and early death.²³ Coal ash also leaches or dissolves into waterways leading to the contamination of water supplies.²⁴ Given the lack of proper independent testing of the affects of coal ash, it is difficult to provide a figure that adequately reflects its true cost to the community. However, in Europe the costs of ill-health and deaths from burning coal are estimated to be as high as €42.8 billion annually.²⁵ That's assuming it's ever really possible to put a monetary price on health and life.

As for gas, in areas where unconventional gas is being extracted appalling cases have emerged, including of young children with rashes from bathing in contaminated water, nose and ear bleeds, vomiting, dizziness, lethargy and severe headaches, all of which are known symptoms of gas exposure. In many cases where serious gas leaks have been reported to companies, years have gone by before anything has been done. According to chemical expert, Dr Mariann Lloyd-Smith, of the 23 major chemicals currently used in Australia by CSG companies, the national regulator has independently assessed only two but not for use as a fracking agent.²⁶

Further to this, claims that gas is a 'cleaner' fossil fuel than coal are highly questionable. Extracting gas requires enormous amounts of fresh water and the environmental and health affects of 'fracking' include scarred landscapes and contaminated ground water from migrating gases and chemicals as well as the release of fugitive emissions. Given that gas is mostly methane, it's around 85 times more greenhouse gas intensive than CO₂ in the atmosphere, when viewed over a twenty-year time span.

Given all that we now know about the grave dangers of mining and burning fossil fuels, it is reasonable to conclude that any leaders that continue to support fossil fuel industries at the expense of zero pollution renewable energy alternatives, and the efficient storage and distribution systems that support them, are knowingly, **wilfully waging war against the environment that supports the very people that it is their job to protect.**

Retiring coal fired power stations, and all other fossil fuel burning plants, will help Australia meet 21st Century challenges

If Australia is to maintain living standards and quality of life for current and future generations, we must drastically reduce our emissions, starting by immediately commencing a rapid transition away from 'old' centralised and highly polluting fossil fuel based infrastructure and energy sources towards 'new' decentralised and more sustainable alternatives, such as **wind and solar power.**

In addition to drastically reducing pollution levels, 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 ferocious), accidents and/or deliberate attacks. In fact, as I write this submission, South Australia is regaining power after 22 transmission towers were smashed by super storms. Unsurprising as it was, it was disappointing to hear the rush of climate deniers/polluter lobbyists' devil-may-care finger pointing at the renewable energy industry while remaining silent about the root cause of the unnatural weather that—as climate scientists have long warned— is now becoming the new, terrifying normal.

Dangerous climate change is already here and our environment is already showing the predicted signs due to excessive greenhouse gas emissions in our atmosphere, as evidenced by the ongoing reports of extreme weather presenting all around the world. Further, the era of cheap crude oil for transportation is gone. Given the tyranny of distance and our increased vulnerability to drought and flooding, it is even more critical for Australia to prepare itself for the changed economic and ecological circumstances that will be part of life in the 21st Century.

According to Beyond Zero Emissions widely endorsed report, *Zero Carbon Australia 2020* (ZCA2020)—which demonstrates precisely how Australia could transition its stationary electricity system from polluting energy to **zero emission energy** using off the shelf renewable energy and energy efficiency technologies that are readily available now—**wind power could be providing 40 per cent of our stationary electricity needs within a decade**. Further to this, the report shows that such a transition would be feasible, affordable (3 to 3.5 per cent of GDP or \$8 per household per week for ten years), create an estimated **140,000 new jobs** in regional economies where they are needed most and ensure energy security for at least the next 70 years. Given the billions Australians are now spending to mop up after successive climate related unnatural disasters, alternative technologies such as wind power are looking cheaper and more attractive by the minute. There could be no better place to start the powerful energy transition than Victoria's Latrobe Valley.

To help secure Australia's precious natural assets (including major tourist attractions such as the Great Barrier Reef), and prepare us for the future zero carbon global economy, the Australian government must in fact go far further faster than our commitment to the *Paris Agreement* demands.

In circumstances where:

1. The paramount duty of government is to protect its citizens from grave threats
2. Rapidly accelerating anthropogenic climate change places the very future of human civilisation and the ecosystems upon which it depends at dire risk
3. Urgent action is required to avoid further damage and to restore a safe climate
4. The necessary action will require society-wide mobilisation of resources at a scale and speed never before seen in peacetime
5. Failure is not an option

We call on the Australian government to declare a state of climate emergency and to create a body in the nature of a war cabinet comprising cross party representation and eminent climate experts to address the threat.

The steps required to address the climate emergency include:

1. The rapid phase out of all fossil fuel extraction and combustion and petrochemical usage
2. Reduction of Australia's carbon emissions to zero as soon as possible coupled with measures to draw down the excess carbon dioxide already in the atmosphere
3. An urgent transition to [100% renewable energy](#) for all buildings, manufacturing and transport
4. An end to the profligate waste of resources via mandatory standards which ensure energy efficiency and [sustainable agriculture](#), manufacturing, recycling, transport and waste management

5. An immediate end to all land clearing and commencement of large-scale re-afforestation and re-vegetation to restore natural ecosystems and sequester more than a century of legacy carbon trapped in the Earth's atmosphere
6. Acknowledgement that:
 - the imposition of absolute caps on fossil fuel extraction and combustion to ensure that fossil fuels remain in the ground save where extraction is absolutely necessary
 - disadvantaged developing nations have done little to contribute to climate change and bear less responsibility than advanced economies
 - [people displaced by climate change](#) are properly recognised as climate refugees and are entitled to the protections that refugee status affords
 - as a nation that has caused climate change, Australia should provide disadvantaged developing nations with fair assistance to implement the changes required and to cope with the impacts of climate change
7. Laws that facilitate demands 1 to 5 above including:
 - the imposition of absolute caps on fossil fuel extraction and combustion to ensure that fossil fuels remain in the ground save where extraction is absolutely necessary
 - a requirement that polluters must pay for the [true costs](#) of the pollution that they emit
 - an end to all [subsidies that support fossil fuel extraction](#) and use and pollution intensive agriculture, manufacturing and transport
 - monitoring and legally binding enforcement mechanisms
 - carefully tailored just [transition programs](#) to support and retrain all workers who are impacted by the necessary changes
 - the rapid creation of a substantial sustainability fund via an [equitable levy](#) to assist disadvantaged developing nations to make the necessary changes and to cope with climate related disasters
 - a requirement that all Australian commercial lenders make at least 20% of their loans in the form of [micro financing](#) for environmentally and socially sustainable projects proposed by and for local communities, and
 - the immediate amendment of all free trade agreement [ISDS clauses](#) to ensure that they do not compromise the above steps.

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 all fall in to one or more of the categories above. Yet, as previously stated, with the urgent adoption of renewable energy as a much greater proportion of our energy mix—in addition to playing our role in 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.**

Further, we emphasise the point that we only have to look at a few recent extreme weather events in Australia and around the world to appreciate that the cost of inaction far outweighs the cost of taking preventative measures. The more climate change we experience the more costly it will be for the nation’s economy.

In concluding we wish to emphasize that this submission, along with numerous others located at <http://live.org.au/submissions/>, has been prepared to voice the deep climate concerns of private citizens associated with LIVE (an independent, non profit climate change action group with more than 3,000 people). In other words, we have no vested interests, nobody is paying or compensating us in any way and there is nothing covert about LIVE’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 this submission with you.

Yours faithfully

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⁷ <http://www.unendlich-viel-energie.de/en/economy/current-facts-and-figures.html> German Renewable Energies Agency Information Platform, Current facts and figures webpage

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