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Select Committee on Wind Turbines  
PO Box 6100,  
Parliament House,  
Canberra ACT 2600

Email: [windturbines.sen@aph.gov.au](mailto:windturbines.sen@aph.gov.au)

### **Submission to the Senate Select Committee on Wind Turbines**

Dear Sir/ Madam,

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

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} <sup>1</sup>**

In fact, emerging evidence is showing that we are losing much more polar ice much faster than had previously suspected. For example, according to researchers, the Totten Glacier in the Antarctic is losing an amount of ice "equivalent to 100 times the volume of Sydney Harbour every year."<sup>2</sup>

Some years ago now one of the world's most respected climate scientist, NASA Goddard Institute for Space Studies' Director, Dr James Hansen continued coal use will result in "*catastrophic climate change and a 'transformed planet'*".<sup>3</sup> Yet, old and inefficient coal-fired electricity plants still largely generate Australia's electricity needs and the Abbott Federal government has been dismantling all environment protection laws we now have to phase them out.<sup>4</sup> With its so-called 'developed nation' status and **enviable wind resources (aka strong 'Roaring Forties')**, Australia has no excuse for remaining one of the world's largest per capita greenhouse gas (GHG) emitters.

### **The Green Economy is the Future 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 wind power. In many places around the world wind power is already generating new investment and new jobs in rural and regional areas while stabilising local GHG emissions and increasing **energy security**.

According to Bloomberg New Energy Finance, after adding 20.7GW of capacity during 2014, China now has more wind power than the entire UK energy system. Meanwhile, the US added 4.7GW of new onshore wind capacity last year, a sixfold increase on the 764MW installed the previous year.<sup>5</sup>

*It's ridiculous. Australia's the Saudi Arabia of renewable energy. There's so much sun, there's so much wind off the coast, and so it makes absolutely no sense when you have an abundance of renewable energy, [to] rely on a depleting supply of fossil fuels with all of the attendant consequences to society and the planet.*

Jeremy Rifkin, *The Third Industrial Revolution*

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.<sup>6</sup> 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.<sup>7</sup>

Why would a Federal government attempt to kill a new industry that had created tens of thousands of new jobs and generated tens of billions of dollars in local economies? Why would a government go to enormous trouble to undo laws (the Clean Energy Future legislation) that were proving highly effective at reducing GHG and stimulating jobs and growth in the clean-energy sector? Australia has promised to reduce GHG emissions by a pathetic and embarrassing five per cent by 2020. However, the Abbott government's 'Direct Action' plan to achieve this has failed to win the support of any credible economists or policy analysts.<sup>8</sup>

Where will Australia be? Unless we move quickly to develop our 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.

### **Health Impacts of Wind versus Coal**

Regarding the relative health impacts of wind power, no research from anywhere in the world has emerged to directly link adverse health effects to wind farms. However, findings conclusively show that 'wind turbine syndrome' is far more prevalent in communities where anti-wind energy lobbyists have been active, and appears to be a psychological phenomenon caused by the suggestion that turbines make people sick<sup>9</sup>. According to the findings of leading Professor of Public Health, Simon Champam, 'wind turbine syndrome' is a 'communicated disease' — that is a sickness spread by the claim that something is likely to make a person sick. So, in fact the symptoms are caused by the 'nocebo effect' — that is the opposite of the placebo effect. In Professor Chapman's words, 'anxiety and fear about wind turbines being spread about by anti-wind farm groups will cause some people hearing this scary stuff to feel that they are suffering symptoms'.<sup>10</sup> In other words it's the anti-wind energy campaigners who are making people sick.

By contrast — in addition to releasing global warming GHG pollution into the atmosphere — 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.<sup>11</sup> Coal ash also leaches or dissolves into waterways leading to the contamination of water supplies.<sup>12</sup> 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.<sup>13</sup> That's assuming it's ever really possible to put a monetary price on health and life.

## Meeting 21<sup>st</sup> 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, such as **wind power**. 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 ferocious), accidents and/or deliberate attacks.

We know the big test for Australia, and indeed all countries, will be how to manage the **twin challenges of climate change and peak oil**. Dangerous climate change is already here and our environment is already showing the predicted signs due to excessive GHG 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 draught 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 21<sup>st</sup> 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 natural disasters, alternative technologies such as wind power 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. Anti-wind campaigners typically fall into one or more of the categories above. Yet, as previously stated, with the adoption of wind power 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**.

Further, I 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 I 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. I would welcome the opportunity to discuss any part of this submission with you.

Yours faithfully

Deborah Hart  
LIVE Campaigner  
22 Young Street  
Albert Park VIC 3206  
M: 0439 447 777  
Website: [www.live.org.au](http://www.live.org.au)

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<sup>1</sup> [http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR\\_AR5\\_SPMcorr2.pdf](http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf) 'Climate Change 2014 Synthesis Report: Summary for Policy Makers'

<sup>2</sup> <http://www.washingtonpost.com/news/energy-environment/wp/2015/03/16/the-melting-of-antarctica-was-already-really-bad-it-just-got-worse/> 'The melting of Antarctica was already really bad. It just got worse.' By Chris Mooney, *The Washington Post*, 16 March 2015

<sup>3</sup> David Spratt and Phillip Sutton, *Climate Code Red* (Scribe Publications, 2008)

<sup>4</sup> <https://www.climatecouncil.org.au/australia-s-electricity-sector-ageing-inefficient-and-unprepared> 'Australia's Electricity Sector: Ageing, Inefficient and Unprepared' by Andrew Stock, A Report by the Climate Council, released 16 June 2014

<sup>5</sup> <http://www.businessgreen.com/bg/news/2391764/chinas-wind-power-capacity-now-bigger-than-uks-total-energy-supply> 'China's wind power capacity now bigger than UK's total electricity supply' by Will Nichols, *businessGreen Sustainable thinking*, 23 January 2015

<sup>6</sup> <http://www.unendlich-viel-energie.de/en/economy/current-facts-and-figures.html> German Renewable Energies Agency Information Platform, Current facts and figures webpage

<sup>7</sup> <http://www.dw.de/denmark-leads-the-charge-in-renewable-energy/a-17603695> 'Denmark leads the charge in renewable energy' by Helle Jeppesen, *Deutsche Welle*, 2 May 2014

<sup>8</sup> <http://theconversation.com/abbotts-environment-agenda-is-even-harsher-than-he-promised-30796> 'Abbott's environment agenda is even harsher than he promised' by Ian Lowe, *The Conversation*, 29 August 2014

<sup>9</sup> 'New Study: wind turbine syndrome is spread by scaremongers' by Simon Chapman, *The Conversation*, 15 March 2013

<sup>10</sup> *ibid*

<sup>11</sup> <http://www.psr.org/assets/pdfs/coal-ash.pdf> 'Coal Ash: The toxic threat to our health and environment' A Report from Physicians For Social Responsibility and Earth Justice by Barbara Gottlieb with Steven G. Gilbert, PhD, DABT and Lisa Gollin Evans, September 2010

<sup>12</sup> *ibid*.

<sup>13</sup> [http://www.env-health.org/IMG/pdf/heal\\_report\\_the\\_unpaid\\_health\\_bill\\_how\\_coal\\_power\\_plants\\_make\\_us\\_sick\\_final.pdf](http://www.env-health.org/IMG/pdf/heal_report_the_unpaid_health_bill_how_coal_power_plants_make_us_sick_final.pdf) 'The Unpaid Health Bill: How coal power plants make us sick' A report from the Health and Environment Alliance, March 2013