



**Submission by the
Australian Environment Foundation
to the
House of Representatives Joint Select Committee on Australia's Clean Energy Future
21 September 2011**

The Secretary,
Joint Select Committee on Australia's Clean Energy Future,
Parliament House,
Canberra

Dear Secretary,

Please note the attached submission to the Committee.

The key points in this submission are:

- *This legislation is opposed by a clear majority of the Australian public;*
- *This legislation will threaten jobs, livelihoods and businesses;*
- *This legislation will add a costly compliance burden to Australian companies;*
- *This legislation will make Australia significantly less competitive internationally;*
- *This legislation will make Australia less attractive as a destination for investment;*
- *This legislation is completely and utterly pointless and ineffective;*
- *This legislation will not influence other nations in any way whatsoever;*
- *A global treaty binding major emitters is the only solution to CO₂-driven global warming;*
- *Government must accept climate science is in its infancy and far from 'settled';*
- *Natural influences have greater impact on climate than any man-made factor;*
- *Man-made CO₂ is not a significant driver of global temperature;*
- *Australia is a net absorber of atmospheric CO₂, not an emitter;*
- *'Carbon' tax is pure politics, as post-election negotiations showed, and must be dropped.*

Yours truly,

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The Australian Environment Foundation is a non-political group that insists that public policy on environmental matters be based on evidence, not politics or ideology. It has taken stands that were once unpopular, but have since been adopted by governments in Australia: in favour of genetically modified crops; flexible controlled burning of bushfire-prone country; recognising the legitimacy of water use by producers in the nation's food bowl; and against wind-farms until health and environmental effects are known.

AEF entered the climate debate because governments in Australia were taking political and ideological positions on climate change that appeared to be unsupported by evidence – and the 'carbon' tax proposal is an extreme example of this tendency.

This legislation is opposed by a clear majority of the Australian public

A Newspoll survey published on 3 May 2011 showed that 60% of voters were opposed to the government's 'carbon' tax and only 30% favoured it. The survey showed that voters not only disapproved of the 'carbon' tax by two to one, but that opposition to the plan is far more intense than the support for it. Of the 60% who were opposed to it, 39% were "strongly against" it, and of the 30% for it, only 12% were "strongly in favour" of it.

The 'carbon' tax was introduced in the teeth of an electoral promise not to do so; the disapproval by the voting public is clear; the only politically responsible course for a government with an ounce of self-respect is to put the question to the electorate before enacting it.

This legislation will threaten jobs, livelihoods and businesses

The increased costs of the scheme will permeate all sectors of the Australian economy. Although it is aimed at the 500 largest emitters of CO₂ (unfairly stigmatised as the 'big polluters'), which include companies in coalmining, metals refining and smelting, oil refining, liquefied natural gas, power generation, cement, and air and ground transport, the higher cost of business inputs will also penalise all the other enterprises throughout the national economy.

Forecasts have been made of 10% increases in electricity costs and 9% increases in gas costs in the first year, as well as increases in local government rates, fuel costs and other flow-through costs. Particularly hard hit will be smaller firms in tourism, manufacturing and retail, all of which are already suffering from the high dollar exchange rate.

The 'carbon' tax will be a nightmare of higher costs, shrinking margins and severe job pressures that neither workers, not employers, nor farmers need. The government's plans to compensate low-income earners for these effects notwithstanding, there will certainly be casualties in the form of layoffs and bankruptcies. Job losses from the 'carbon' tax will be inevitable in many of these sectors, with all their sad consequences for families and communities.

This legislation will add a costly compliance burden to Australian business

The 'carbon' tax scheme amounts to the most extensive and expensive proposal of its kind in the world. Unlike the European ETS, which is largely limited to the power sector, the proposed 'carbon' tax covers the entire Australian economy and will impose much higher costs on it.

In addition to paying the costs of the ‘carbon’ tax, companies will be faced with an ominous swag of new government bodies, including the Clean Energy Regulator, the Climate Change Authority, the Australian National Registry of Emissions Units and a National Greenhouse and Energy Reporting system. Dealing with these entities will involve a costly nightmare of meeting regulatory deadlines, lodging forms and dealing with the possible consequences of inadvertent non-compliance.

The IT section of the Australian reported on July 12 that the nation's “top 500 ‘polluters’ will shell out more than \$100 million on technology to comply with the Gillard government's carbon tax scheme. The IT industry expects a windfall in carbon compliance and reporting technology investment after Julia Gillard set a price for carbon on Sunday.”

This legislation will make Australia significantly less competitive internationally

The ‘carbon’ tax penalises exporters without applying comparable costs on imported goods. Particularly hard hit will be coal exporters, as they will have to pay for ‘fugitive emissions’ from coalmining, in addition to higher costs for electricity and fuel.

None of Australia’s competitors, particularly those in the resources sector, such as exporters in Canada, Brazil, India and Indonesia, have imposed on their business sector similar burdens of either kind. Consequently, export prices received by Australian firms will be higher by the amount of the impact of the ‘carbon’ tax, while those of foreign competitors will not. Meanwhile, importers of foreign goods will face higher domestic costs for including electricity, fuel, rents and all other inputs, none of which will escape the effects of this tax.

This legislation will make Australia less attractive as a destination for investment

In addition to regulatory burdens already faced by overseas investors, the ‘carbon’ tax adds to the taxation and bureaucratic compliance costs already burdening overseas investments in Australia.

This legislation is completely and utterly pointless and ineffective

It will have no perceptible or even detectable effect whatsoever on atmospheric CO₂ or on global temperatures. This is among the most damning fault of all faults found against the tax.

This legislation will not influence other nations in any way whatsoever

High-emitting countries such as the US, China, India, Mexico, Brazil, and Russia will conduct their affairs according to their own priorities, and will pay no attention whatsoever to altruistic actions by a remote ‘Boy Scout’ nation. It would be naïve in the extreme to expect any follow-on effect from Australia’s unilateral action. It is obvious to all foreign countries that the ‘carbon’ tax is being imposed purely for reasons of politics – to meet the demands of the Greens for their support; and reasons of finance – to raise funds for the Labor government’s fiscal excesses.

A global treaty binding major emitters is the only solution to CO₂-driven global warming

If man-made CO₂ is really a problem, comprehensive and binding global action is the only solution - yet there is no sign of it. Contrary to Treasury modeling and government statements, there is no possibility whatsoever that USA, Canada, China or India will get involved in such a treaty. Australia, which is not a major emitter of CO₂ in absolute terms and is unlikely to become one, can by itself have no meaningful impact on global temperature or climate.

Government must accept climate science is in its infancy and far from 'settled'

In this debate, there is much confusion, misinformation, government-directed statements of 'scientific' conclusion, and an ominous silencing of government scientists who disagree.

Yet all sides in the climate debate actually agree on a great deal. They agree that:

- climate has always changed and always will;
- the 'greenhouse' keeps the Earth's temperature about 34°C warmer than it would otherwise be;
- water vapour and clouds account for about 95% of greenhouse gases;
- CO₂ is a minor greenhouse gas, accounting for 3.5% of all greenhouse gases and 0.039% of the air;
- warming from a doubling of CO₂ by itself would, theoretically, be less than 1°C;
- since the Little Ice Age (which according to NASA lasted from 1550 to 1850, and reached its depth around 1650), it has been getting warmer;
- since around 1850, atmospheric concentration of CO₂ has been increasing and now stands at 390 parts per million;
- CO₂ comes from many sources, mostly natural, while a small portion is man-made;
- CO₂ from man-made sources currently accounts for 9 billion tonnes of the 220 billion tonnes of carbon equivalent emitted each year - or about 4%.

What remains in dispute is by how much CO₂ influences temperature - and this is the heart of the debate. In theory, more CO₂ means more greenhouse gas and possibly a warmer planet. The question is, how much warmer? Those who foresee catastrophe - the 'catastrophists' - whose position is most fully laid out by the Intergovernmental Panel on Climate Change, believe a man-made CO₂-driven climate catastrophe is already locked in. Those who wait for direct observational evidence to corroborate this hypothesis have not seen any; and surmise that, after allowing for CO₂ rises from all sources, any warming signal from man-made CO₂ may be so minimal as to be lost in the noise of measurement.

There is one key magnitude, which, if it could be measured reliably and without controversy, would settle the entire debate: the magnitude of climate sensitivity - the question of how much warmer would it really get, not just in theory, if a climate forcing such as CO₂ were doubled?

In its 2007 Assessment Report, the IPCC assumed that a hypothetical temperature rise from CO₂ alone would hypothetically be amplified by water vapour, in a 'positive feedback', by a factor of between 2.0 and 4.5. It's logical: if it gets warmer, there'll be more surface evaporation, more water vapour in the air, a smaller lapse rate of temperature with altitude, and a warmer surface. But has it been proven that water vapour causes further warming? In fact, it hasn't been.

Research results from the CLOUD experiment at the European Centre for Nuclear Research (CERN), operator of the Large Hadron Collider, and evidence in papers based on new satellite data recently published in peer-reviewed journals, cast serious doubt on the IPCC-catastrophist hypothesis of man-made global warming. They indicate that climate sensitivity may be negative (less than one times the warming from CO₂ alone), thus attenuating temperature rise; instead of being positive (or greater than one times), which would accelerate temperature rise. If climate sensitivity were in fact negative, it would contradict what IPCC has been reporting to the world, and would gravely undermine the hypothesis that man-made CO₂ drives global warming.

Obviously, there's no 'settled' scientific view here. The notion that man-made CO₂ causes 'unprecedented' and 'dangerous' global warming - which underlies the social angst about 'carbon' - is no more than a hypothesis; it is *not* a proven, non-controversial theory of science.

When people claim an effect is due to a cause, they are obligated to demonstrate it with direct observational evidence explained by a falsifiable hypothesis. Yet neither IPCC, nor any of the

lead, contributing or reviewing authors of its reports, can point to any measurement, experiment, data point, or any other form of direct observational evidence, to prove that increases in man-made trace greenhouse gases such as CO₂ cause a detectable rise in global temperature.

When the debate is joined by the non-technical, like academics not qualified in hard sciences, by journalists, and by politicians, it is no longer a debate of science, but one of politics and ideology.

Natural influences have greater impact on climate than any man-made factor

Other than CERN's CLOUD experiment, little research has been funded to prove natural mechanisms of global warming or cooling, although it is known that Earth's climate is influenced by many natural phenomena, all far beyond the control of mankind.

These include: cosmic radiation as a trigger for cloud formation (as CLOUD demonstrated); solar magnetic flux as a varying shield against cosmic radiation; changes in atmospheric water vapour, clouds and cloudiness; changes in trace atmospheric gases from natural causes; eccentricity of Earth's orbit; inclination of Earth's orbit; obliquity of Earth's axial tilt; precession of Earth's axial orientation; dynamic oblateness of Earth's shape; rotational velocity of Earth's core; changes in Earth's magnetic field; tectonic movements of Earth's surface; sub-sea and on-land volcanic eruptions; circulation patterns of the oceans; variations in ocean salinity and chemistry; mass-balance of glaciers; and Earth's albedo or reflectivity.

That's a lot of natural influences to starve of research funding. It seems likely that, among these variables, none susceptible to human influence, significant impacts on climate will be discovered.

Man-made CO₂ is not a significant driver of global temperature

There are in fact serious problems with the CO₂-driven global warming hypothesis. It doesn't take someone qualified in the hard sciences to understand them - just a logical thinker.

First, the weak correlation problem

The correlation between temperature and CO₂ is very weak, and the further you delve into history and pre-history, the weaker it gets. Since spectroscopic measurement began in 1958, the rise in atmospheric CO₂ has been steady, with a distinct seasonal pattern; on the other hand, temperature since then has gone down, then up, and now appears to be going down – all while CO₂ has been rising steadily. Dr. Murray Salby, Professor of Climate at Macquarie University, claims to have conclusively demonstrated that there is essentially no correlation between changes in globally-averaged temperature anomalies and measured rises in concentration of atmospheric CO₂. He adds that, consequently, no cause of climate change can be credibly attributed to man-made CO₂.

Second, the prior warm periods problem

Looking at history, there has been a warm period roughly every thousand years in the recent past, interspersed with colder periods. During the warm spells, civilisations rose and flourished, including the Mesopotamian, the Minoan, the Roman and the Medieval, all of which straddled periods believed to have been noticeably warmer than today - and all of which declined when temperatures fell. Clearly, man-made CO₂ had nothing to do with either warm spells or cold.

Third, the no acceleration problem

There is no evidence that global warming has accelerated to where it is 'unprecedented' or 'dangerous'. Many specialists have noted that the rates of global warming between 1860-1880, 1910-1940 and 1975-1998 were not 'unprecedented' in terms of past changes in climate. Nor is there any objective evidentiary basis to demonstrate that recent temperature change is 'dangerous', a claim central to the IPCC-catastrophist position. Dr. Ivar Glaever, 1973 Nobel prizewinner in physics, recently resigned from the American Physical Society because of its

commitment to catastrophism. He opined that “the temperature (change) from ~288.0 to ~288.8 degree Kelvin in about 150 years...means...the temperature has been amazingly stable”.

Fourth, the diminishing absorption problem

It is well known that the greenhouse effect of CO₂ diminishes logarithmically with increasing concentration. The largest lick of climate forcing by CO₂, by far, comes from the first 50ppmv of CO₂; the next 50ppmv absorbs far less infra-red heat energy, and so on, for each doubling of CO₂, as the available scope for more absorption diminishes. According to data from the University of Chicago’s MODTRAN model of absorption spectra, if the assumed pre-industrial CO₂ level of 270ppmv were doubled to 560ppmv, the additional CO₂ would cause temperature to rise by less than 1°C - far less than the several degrees assumed by the IPCC’s 23 computer models.

Fifth, the CO₂ lag problem

It is now clear that changes in temperature precede, and do not follow, changes CO₂ levels, by several hundred years. The reason isn’t known; but warmer atmosphere at the surface may lead to warmer ocean surface layers, and warming oceans emit CO₂, just as warming beer does.

Sixth, the inter-hemispheric transport problem

Research on airborne carbon isotopes from atomic tests in the southern hemisphere in the 1950s shows that man-made CO₂ took months to mix with northern hemisphere air. Since most man-made CO₂ is generated north of the Equator, if rising CO₂ levels are caused by man, these emissions should be detected in the North months before they’re seen in the South. But CO₂ changes are detected simultaneously and uniformly in both hemispheres, measured at Cape Grim in Tasmania, Mauna Loa in Hawaii and Point Barrow in Alaska. This suggests that increases in CO₂ probably come from a global or equatorial source, and supports the concept that changes in CO₂ could be primarily due to oceanic sources, such as oceanic respiration or sub-sea volcanism.

Seventh, the missing fingerprint problem

The hypothesis that man-made CO₂ is a principal driver of temperature change fails a simple test against observed real-world data. The greenhouse concept, as reflected in all 23 computer models of climate that IPCC relies upon, requires that when CO₂ levels rise, the temperature of the ocean surface increases, causing more evaporation and more water vapour in the atmosphere. The hypothesis holds that this causes a belt of warm air to form in the upper troposphere between 10km and 12km of altitude between the tropics at latitude 22.5°N and latitude 22.5°S.

In dry air, the lapse rate (decline in temperature with rise in altitude) is 10°C per kilometer; in humid air, the lapse rate can fall as low as 4°C/km. If a belt of excessive humidity arose in the troposphere, a belt of excessive warmth would accompany it; the lapse rate would fall and the tropical surface would warm. If upper tropical air is less humid than hypothesised, no belt of warm air would be formed, the surface would not warm, and IPCC’s models would be wrong.

In 2006, NOAA’s US Climate Change Science Program published balloon radiosonde measurements of tropospheric temperature up to 25km, collected by the UK Met Office over the 20 years of rising temperature between 1979-1999. These data show conclusively that the predicted belt of warm air does not exist. It is a direct test of the AGW hypothesis against observed data, and it fails. This ‘fingerprint’ of man-made CO₂-driven global warming simply isn’t there. If CO₂ in general has no detectable climatic fingerprint, and therefore no demonstrable influence on climate, then man-made CO₂ cannot be a problem of any significance.

Eighth, the natural causes problem

CERN, in newly-published results from the CLOUD experiment, reported that low-level clouds are caused naturally, by among other natural causes, cosmic radiation. Concurrently, using fresh satellite data, Dr. Roy Spencer, who publishes important NASA-approved atmospheric and sea-surface temperature time series at the University of Alabama Huntsville, recently published evidence in a peer-reviewed journal that low-level clouds cause temperature changes, rather than

- as hypothesized by IPCC - the other way round. He and his colleague Dr. William Braswell demonstrate that temperature change is a natural occurrence; and conclude that warmer surface temperatures don't cause more clouds, but more clouds cause cooler surface temperatures.

Proof that clouds are formed naturally, and evidence that clouds cool the surface and thus govern temperature naturally, leaves little role for man-made CO₂. It casts serious doubt on the CO₂-driven global warming hypothesis of the IPCC and the position of catastrophists who accept it.

Australia is a net absorber of atmospheric CO₂, not an emitter

Government ministers have often stated that Australia should act on its man-made CO₂ emissions because it is the world's greatest per capita emitter among developed countries; but these statements are open to question. Ministers should focus strictly on fossil fuel, which is what the 'carbon' tax is aimed at. Several countries, from large (USA) to small (Kuwait), have higher per capita emissions of CO₂ from fossil fuel than Australia. On a per capita basis, Australians emit 4.4 tonnes/yr of carbon equivalent from fossil fuel. In 2010 Australia's fossil fuel emissions were about half those of Kuwaitis (8.4t/yr per capita) and 82% of Americans' (5.4t/yr per capita).

Global emissions from fossil fuel in 2010 totaled 9.0 bn.t/yr on a carbon-equivalent basis; of this, Australia accounted for 0.1 bn.t/yr C-equivalent or 1.1%. Using IPCC data (AR4, Ch.7, Fig.7.3), if absorption of CO₂ by Australia's natural sinks is factored in, then this country absorbs 0.2 bn.t/yr C-equivalent in absolute terms, *twice* the 0.1 bn.t/yr of CO₂ it emits from fossil fuels.

And in per capita terms, Australia perform *ten times* better as a CO₂ sink than the next runner-up, which is the continent of Africa. Per head of population, Australian territory and oceans absorb a net 4.5 tonnes/yr C-equivalent of airborne CO₂; the nearest runner-up is the African continent (0.4t/yr), followed by Brazil (0.4t/yr), and then Canada (0.2t/yr). Due to its small population and great expanse, Australia - of all major nations - provides the world's greatest CO₂ sink. In both absolute and per capita terms, all other major nations and regions are net emitters of CO₂.

This refutes the questionable declarations of ministers, based on misleading arguments, that Australia must tax 'carbon' because the nation is a huge per capita emitter of CO₂. It could equally be argued that Australia should do nothing, since on per square km basis, its emissions are negligible: 60 tonnes/sq. km compared to 700 t/km² for China and 3000 t/km² for Japan.

Ministers point to China as an example of a nation acting to control its CO₂ emissions. In reality, China's fossil fuel emissions grow each year by twice Australia's total emissions; in 2010 China's emissions from fossil fuel were 10% greater than in 2009. In 2010, China produced 23 times more CO₂ from fossil fuel than Australia; and it emitted over 10 times more CO₂ from fossil fuel than it absorbed naturally – a performance worse than any other major nation. Journalist Terry McCrann writes, "over the next decade, China is going to increase its coal-fired power generation (and so its CO₂ emissions) by about 10 times Australia's total generating capacity."

'Carbon' tax is pure politics, as post-election negotiations showed, and must be dropped

Keith Orchison, past president of the Energy Supply Association of Australia writes: "The acid test...is whether (the government) can deliver the promised 2020 abatement target – which now requires cuts in emissions at 2020 of 160mnt (CO₂ weight) a year". He concludes: "no amount of spinning can conceal that...this policy won't get within coo-ee of doing so."

If recovery from the Little Ice Age in the last 160 years has natural causes, and if man-made emissions have no proven or detectable effect on climate, there's surely no need for political action to control man-made CO₂ emissions. To base fundamental changes in public policy on the vigorously-contested positions of a politicised body like IPCC, in a multi-faceted field still in its

infancy, and when ‘the science’ is far from ‘settled’, would, to say the least, be highly premature.

How it is that a mindset of such certainty grips the political class of Australia, when the basic science remains unresolved, and their objectives remain so far out of reach?

The widely-published writer Walter Russell Mead, Professor of Foreign Affairs and Humanities at New York’s Bard College, summarises the absurdity of their position. Catastrophists were “so cluelessly unrealistic as to be clinically insane...When it comes to climate change, the environmental movement has gotten itself on the wrong side of doubt...It proposes big economic and social interventions and denies that unintended consequences and new information could vitiate the power of its recommendations.” He might well have been describing the ‘carbon’ tax.

The late physicist Professor Harold Lewis of UC Santa Barbara was forthright in his letter of resignation from the American Physical Society. He resigned because he disagreed with APS kowtowing to “the global warming scam, with the (literally) trillions of dollars driving it...(which) has corrupted so many scientists, and has carried APS before it like a rogue wave. It is the greatest and most successful pseudoscientific fraud I have seen in my long life as a physicist.” Here is a distinguished physicist and decorated public servant saying that the basis for the government’s proposed ‘carbon’ tax is not only pseudoscientific but also fraudulent.

Others point to an insidious tangle of rent-seeking academics who need funding, ideological movements that need to pay for their causes, media that needs a life-threatening crisis to command audiences, an administrative class that enjoys power, and politicians who need new taxes to pay for expensive ideas and who sense that ‘saving the planet’ is a good excuse for it.

The notion of man-made CO₂-driven catastrophic global warming is a cult of the Western intelligentsia alone, emphasised by the fact that leaders in China, India, Indonesia, Africa, the Middle East and Russia talk little about, and act less on, global warming. The Chinese above all can see that Australia and Europe are on a mistaken but slippery slope to economic suicide.

To conclude, Dr. Richard Lindzen, Alfred P. Sloan Professor of Meteorology at MIT, wrote:

“The fact that the developed world went into hysterics over changes in global mean temperature anomaly of a few tenths of a degree will astound future generations. Such hysteria simply represents the scientific illiteracy of much of the public, their susceptibility to substitution of repetition for truth, and the exploitation of these weaknesses by politicians, environmental promoters, and, after 20 years of media drum-beating, many others as well.”

To summarise:

- *This legislation is opposed by a clear majority of the Australian public;*
- *This legislation will threaten jobs, livelihoods and businesses;*
- *This legislation will add a costly compliance burden to Australian companies;*
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