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The Minister for the Environment and Energy Efficiency

Mr Greg Combet AM MP GPO Box 854 Canberra ACT 2601 Australia greg.combet.mp@aph.gov.au

Sent by email on 12th August 2011

Dear Mr Combet,

I am in receipt of the 'What a carbon price means for you' booklet which was delivered to my letterbox this week. Having read the document I have some questions, the answers to which I could not find at the website mentioned in the booklet, www.cleanenergyfuture.gov.au or www.treasury.gov.au/carbonpricemodelling

- 1. There are many references to 'carbon pollution 'and, 'carbon price'. There is no mention at all of carbon dioxide (CO2). Previous Government announcements had lead me to believe the Government's objective is to reduce anthropogenic CO2, but this is not mentioned anywhere in the document. Why is that?
- 2. Also based on previous Government announcements I was lead to believe that the Government was concerned about anthropogenic global warming, but this is not specifically mentioned in the booklet. There is just one small reference to 'extreme weather events' which I will discuss later. Based on the Government's previous announcements and the information provided by the Climate Commission and specifically Climate Commissioner Tim Flannery, I have been told anthropogenic CO2 is causing dangerous global warming, but this has not been mentioned in the booklet. Why is anthropogenic CO2 caused global warming not mentioned in the booklet?
- 3. I only have high school knowledge of physics and chemistry, but I know Carbon (C) is number 6 on the periodic table and is a solid non-metal primordial element. There is no information provided supporting any price or tax on carbon alone. Oxygen is a non-metallic primordial element constituting 21 percent of the atmosphere by volume. Oxygen occurs as a diatomic gas, O₂, and combines with most elements. It appears as number 8 on the periodic table with a much greater atomic weight than Carbon. Carbon and Oxygen combine naturally to produce CO2 which is a colourless, odorless gas which currently makes up less than 0.04% of the Earth's atmosphere and is formed when any fuel containing carbon is burned. It is breathed out of an animal's (including humans) lungs during respiration, is produced by the decay of organic matter, and is necessary for plant life used in photosynthesis. As there are two atoms of the heavier oxygen in the compound CO2, isn't it misleading to abbreviate 'carbon-dioxide' to 'carbon'?

- 4. **Diamonds** and graphite are made up of carbon in a pure form and I am not aware they are being taxed. I do understand **Methane** (one atom of Carbon plus four atoms of Hydrogen), CH4, is also a carbon compound. But given agricultural methane appears to be exempt from the Government's 'Carbon Pricing' and the Government will be subsidising the coal industry, another emitter of CH4, isn't it wrong for people to assume 'Carbon' is a good proxy name for all types of so-called pollution which is going to be taxed/priced?
- 5. Almost all of the human emitted CO2 comes from burning fossil fuels (Coal, Oil and gas). We are told that these fossil fuels were created over millions of years by the process of plants taking CO2 out of the atmosphere, and producing carbohydrates through the process of photosynthesis and the resulting oxygen is released into the atmosphere. These plants have died and been buried over millions of years and been transformed under pressure into the fossil fuels which we now burn releasing CO2. We are also told that the system where animals ingest plants and other animals, convert that food to energy and exhale CO2 into the atmosphere is part of a closed system – where that CO2 is taken up by the earth's plants. However it is claimed the burning of fossil fuels is upsetting this system and adding more CO2 to the atmosphere than that system and natural CO2 sinks can handle. I have a problem with this theory. The CO2 which is being released into the atmosphere by humans burning fossil fuels was CO2 which was originally in the earth's atmosphere millions of years ago. This was during a time when plants to flourish and took up the CO2from the atmosphere leaving us the legacy of fossil fuels today. Burning the fossil fuels is therefore simply putting CO2 back into the atmosphere and creating the same atmosphere where plant life flourished on the earth. In fact we know that current atmospheric CO2 levels are historically low compared to the history of the world and periods where the earth has been both much warmer and much cooler. When atmospheric CO2 is at a low level in terms of the earth history, when the earth's global average temperature history is clearly not linked to atmospheric CO2, and when we know CO2 is a valuable plant food, why does the Australian Government think reducing atmospheric CO2 is a good idea?
- 6. As best I can tell the entire 340-page "Clean Energy Bill 2011," and the 12 other bills to which it's attached do not mention 'global warming' or 'temperature'. We have been told that it is important to reduce anthropogenic CO2 emissions and move to a clean energy future as described in the booklet, to forestall increased global warming which will lead to the 'extreme weather events'. If the legislation has no reference to global warming or temperature, does that mean:
 - a) We have no way to measure any success or failure of the proposal to set a price on 'carbon' emissions?
 - b) The Government is no longer confident that global warming or rising global average temperatures are a problem?
- 7. If the answer to 5. a) or 5. b) (above), is 'no' then why is there no mention of 'global warming' or 'temperature' in the legislation or the booklet and no way the public can determine the objectives and success or otherwise of the proposed legislation?
- 8. On page 3 of the booklet it is stated "over half the money raised from the carbon price will be used to fund tax cuts, pension increases and higher family payments. The remaining money will be invested to support jobs and help to build Australia's clean energy future." In Cancun, Mexico in December last year you signed an agreement on behalf of the Australian

Government under which about 10 per cent of carbon taxes in raised in Australia will go into a Green Climate Fund run by the UN and paid to undeveloped nations. At the time your department claimed, "It is in Australia's interest to assist developing countries to take urgent adaptation actions and to build their capacity to reduce emissions." Why has this allocation to countries overseas not been mentioned in the booklet?

- 9. Page 5. Of the booklet claims Australia needs to cut 'carbon pollution' because "......extreme weather events, such as droughts, heatwaves and bushfires, are likely to become more frequent and severe. This threatens Australian' homes, businesses and communities, and vital industries such as agriculture." I assume this is based on the predictions made in the IPCC AR4 2007 reports. For example from the Synthesis report, at 3.3.5 Extreme Events: "Altered frequencies and intensities of extreme weather, together with sea level rise, are expected to have mostly adverse effects on natural and human systems (Table 3.2). {WGII SPM}"
 - a) Why does the booklet not mention that projections of extreme weather event severity and frequency are based on IPCC Climate Model scenario predictions which to date have failed to match actual empirical results?
 - b) Why does the booklet not list a range of potential positive outcomes if global average temperatures rise which are noted in the IPCC report including increased crop yields in colder areas, decreased human mortality from decreased exposure to cold, and decreased energy demand for heating?
 - c) The IPCC report makes this statement regarding the negative outcomes caused by extreme weather events predicted by their climate models, "These do not take into account any changes or developments in adaptive capacity." Many economic commentators have said that even if we assume the IPCC climate projections are correct, the cost of trying to mitigate climate change will be greater than the cost of adapting to any climate change. Many economists have suggested that the discount rates used by Lord Stern and Ross Garnaut in their calculations of the cost of mitigation versus the cost of not doing anything are inappropriate. Why does the booklet not discuss the option of adapting to climate change rather than trying to control it?
- 10. We know that natural climate change has happened from the beginnings of our planet. We could go through all the economic and disruptive pain of changing the whole basis of our economy only to find that our climate naturally heats or cools to a level which will cause significant disruption in any case. There have recently been a number of peer reviewed papers suggesting that the world could be entering a natural cooling phase, and possibly that the interglacial period is ending. Can the Government guarantee that the action we take to change our economy and our energy future will not be a waste because of natural climate change which we have no control over, will have a greater impact on climate than anything we do about carbon emissions?
- 11. Does the Government expect that if the world governments worked in concert we would be able to control global average temperatures through policy? If so, do we have a right to condemn certain parts of the world to being forever cold barren places with very short growing seasons which may have otherwise achieved a climate more conducive to plant and animal life?
- 12. Page 5 states "......89 countries representing 80 percent of global emissions and 90 percent of the world's economy have already pledged to take action on climate change." Isn't this a blatant misrepresentation of the facts to make it sound like Australia is behind the rest of

the world when it comes to action on climate change? In fact isn't it true that only the EU, New Zealand and Australia are committed to a national price on 'carbon'? Isn't it also true that the US, China, India and Canada have all indicated that they will not sign any specific commitment limiting 'carbon emissions' beyond the Kyoto agreement which expires in 2012? Isn't it also true that China the world's largest 'carbon polluter' has categorically stated they will not agree to any emission reductions, that they will only commit to reducing their 'carbon intensity' which they can do simply by using currently available technology in their power generation?

- 13. Why does the booklet point out that China is the world's largest manufacturer of both solar panels and wind turbines without also pointing out that the turbines and solar panels are being sold to other countries which are artificially subsidising the costs of production by providing subsidies, incentives and grants for the installation of this less efficient power generation equipment? Why isn't it pointed out that China's production of these items would be impossible without their access to cheap power provided to a large extent by coal fired power stations which they are commissioning at the rate of one per week?
- 14. Page 5 of the booklet states "Australia generates more pollution per person than any developed country". A calculation of carbon dioxide emissions per capita, from 1990 through 2008, which appears to be the latest available data, does not agree with this. The data, calculated by the US Department of Energy's Carbon Dioxide Information Analysis

 Center (CDIAC), mostly based on data collected from country agencies by the United Nations

 Statistics Division places Australia at number 11. This put us behind rich or wealthy countries such as Qatar, UAE, Bahrain, Luxembourg, and the UK owned Falkland Islands.

 Where does the Government's information on per capita emissions come from?
- 15. You claim in the booklet that the Government is committed to cutting net expected 'pollution' by 23% by 2020 and by 80% on 2000 levels by 2050. This is despite anticipated significant population growth including immigration which was around 300,000 last year.
 - a) What do you expect the carbon price would need to be to achieve such a huge reduction (80% on 2000 levels), since it is only expected to achieve a 5% reduction on 2000 levels from a \$23 per ton price (increased by 2.5% each year until an ETS is introduced in 2013)? Treasury models assume a carbon price in today's dollars of \$131 based on
 - b) To make such a reduction is it your expectation that all coal fired power stations would close unless CO2 sequestration could be successfully developed by 2050?
 - c) If the answer to b) is yes, then what does the Government expect will replace base load power generation and can you point to any country which uses this means of base load power, or which is a long way towards achieving this goal?
- 16. On page 6. Of the booklet it is claimed that "By 2020 the carbon price package will take 160 million tonnes of pollution out of the atmosphere every year." Assuming by pollution it is meant CO2:
 - a) Can you advise what change in global average temperature you expect this will have:
 - i) If Australia is the only country to take such action?
 - ii) If every country in the world took similar action?
 - b) Can you advise what cost this reduction in CO2 will have in terms of Australia's GDP:

- i) If Australia is the only country to take such action?
- ii) If every country in the world took similar action?
- c) Given we know increased atmospheric CO2 improves plant growth and crop yields can you advise the anticipated reduction in crop yields in Australia this reduction in CO2 emissions will have:
 - i) If Australia is the only country to take such action?
 - ii) If every country in the world took similar action?
- 17. On page 6. The booklet states: "These measures will support jobs in existing industries like aluminium, steel, cement and coal." I am very confused by this statement in reference to the web sites which the booklet directs me to and the draft legislation.
 - a) There is some assistance to energy intensive industries which are export exposed, and there is financial assistance in place, but if the world moves to a low to zero CO2 emission future as forecast by your government, then emission permits will not be provided free to these industries and they will not be able to continue emitting CO2 to reach the 80% reduction target by 2050. Therefore how can the future for jobs in these industries be anything but grim?
 - b) Coal is the largest producer of CO2 emissions versus other fossil fuels per unit of energy, so how can the Government provide support to this industry in preference to say oil or gas? As Australia has an abundance of gas reserves, wouldn't it be far more efficient to encourage a transition from coal to gas in the medium to short term?
 - c) Does the government believe sequestration of emissions from coal fired power generation is at all likely to be economically viable in the future and if so when and what working models are there currently operating around the world? If the technology is currently not available, then how can the cost of introducing that technology be estimated?
- 18. Page 6. Of the booklet states "Economic experts around the world recognise that putting a price on carbon is the most environmentally effective and cheapest way to cut pollution." My own reading indicates that because a carbon credit is an intangible good, trading in it is open to fraud. In December 2009 Europol, the European criminal intelligence agency warned that ETS fraud had resulted in around 5 billion Euros in lost revenues and as much as 90 percent of the entire market volume on emissions exchanges was caused by fraudulent activity. One of the recognised experts in the field of emissions trading, Professor Prins of the London School of Economics is reported to have said that there is no credible evidence that ETS markets make any difference to emissions.
 - a) What empirical evidence does the Australian Government have that emission trading is an effective way of reducing CO2 emissions?
 - b) What will the Australian Government do to ensure there is no fraud in our emissions trading scheme and how much will fraud prevention cost as a percentage of the revenue raised?
 - c) How will the Government be able to ensure that emission credits purchased from overseas will be genuine? For instance, who will ensure that for instance forests locked

- up from logging will remain locked up in a country over which Australia has no jurisdiction? How will we know if an emission credit provider from overseas will not sell the same credit to more than one overseas buyer?
- 19. On page 6 it is written: "Currently, releasing carbon pollution is free despite the fact that it is harming Australia's environment." What evidence is there linking CO2 emissions directly with specific environmental harm in Australia? If you point to a specific weather event, or climate factor, please differentiate between any changes in any such events or factors which are directly linked to CO2 emissions versus natural climate change.
- 20. Page 6. Also states "It puts a price on the carbon pollution that Australia's largest polluters produce." I have seen estimates which put the Commonwealth Government and it's agencies within Australia's largest 50 CO2 emitters:
 - a) Why is the Commonwealth Government not included within the top 500 'polluters' forcing it to make reductions in emissions, or paying for emissions out of existing budgets?
 - b) There have been no announcements regarding cutting the size of the Federal Government in an attempt to reduce emissions. In fact the measures announced in this booklet will increase the size of the Federal Government. Why is this?
- 21. Page 6. Of the booklet explains the carbon price will encourage "businesses across all industries to find the cheapest and most effective way of reducing carbon pollution."
 - a) For many industries, particularly manufacturing, margins are small. Over the past couple of decades we have seen manufacturers close down in Australia and move their operations overseas. This has happened often despite millions of dollars in Government subsidies, for example in the vehicle, clothing, white and brown goods industries. We know that even a global agreement on CO2 emission reductions is unlikely to apply to developing countries. We also know the world's largest emitter, China has stated they will not consider CO2 emission reductions; they will only seek to reduce CO2 emission intensity per unit of GDP. Our nearest competitors including Indonesia and Malaysia are likely to be exempt from a global scheme. Japan has already flagged they will not go beyond their Kyoto commitments. How much industry has the government estimated will leave Australia because of the plan to introduce the emissions trading Scheme following the carbon tax to reduce emissions by 5% compared to 2000 levels by 2020?
 - b) How much industry will leave Australia due to the target of reducing emissions by 80% by 2050?
 - c) For many businesses including retail and service industries, their main CO2 emissions are related to electricity usage. Power is also a major input in any manufacturing business. While these businesses may be able to make some reductions in power usages by turning off lights and reducing air-conditioning, they have no input into power generation. Power generators are going to be hit with two cost increases, while paying for the imposed carbon taxes, they will also attempt to modernise their power generation and introduce renewable energy or more CO2 emission efficient generation sources. This will require capital which will also increase their operating costs. Both these costs which will be imposed by this government policy will increase the businesses operating costs for which there is no compensation. These costs will need to be passed on to their customers but given slim margins already it is likely these costs will cause

- some businesses to fail. What estimate has the government made regarding the businesses which will close because of this cost impost?
- d) With regards to point c) above, as far as I can tell the Government has only included an estimate of the increase in costs to power consumers due to the carbon tax, and not due to the extra capital costs of transition to lower CO2 emission power generation. Is that correct?
- 22. I have looked at the treasury modelling at www.treasury.gov.au/carbonpricemodelling in reference to the claim on page 7. in the booklet which seems to imply a carbon price can be introduced without any impact on economic growth, personal incomes or employment.
 - a) Isn't it true that based on Treasury modelling by 2050 gross national income per person will be 2.8% less under the proposed carbon pricing which equates to a loss of GNI per person of \$4,700 (much greater if calculated per household), and this gap increases year on year versus a no carbon price model?
 - b) While the government's announced starting carbon price is \$23 per ton of CO2, Treasury modelling assumes a global price of \$100 to \$200 per ton by 2050. In fact isn't the figure \$131 in today's dollars based on Treasury's medium climate action assumptions which is a 570% higher price than the one announced and detailed in the booklet?
 - c) If European Union Carbon prices commenced in 2008 at around \$A40 per ton and are now trading at around \$A16 per ton for December 2011 CERS, based on an emissions reduction target of 20% by 2020, which is 4 times higher than Australia's 2020 target, why does treasury believe the carbon price will rise so significantly?
 - d) If the Government agrees with treasury modelling, why is the Government only setting a minimum price of \$15 per ton when the ETS commences?
 - e) At a time when most of the world is entering or in economic recession and many European countries and the US have major debt problems, why has treasury assumed such a strong baseline world economic growth rate of 3.5%pa through to 2050? Remember the average annual growth rates over the last 50 years has been 3.9% but that has been achieved with access to cheap fossil fuels to aid economic expansion and the carbon pricing policy aims to remove access to cheap fossil fuels which has been the basis of much of the world's economic growth. Doesn't that make the reduced world and Australian economic growth rates following introduction of a carbon price and ETS look overly optimistic?
 - f) Isn't it true that the treasury modelling only takes account of the carbon tax when calculating increase in consumer prices in 2012-13 and this has two significant deficiencies for consumers reading their projections:
 - i) They do not project price increases which will need to be passed on because of the capital cost for companies who will need to purchase new equipment to become less CO2 emission intensive?
 - ii) Treasury do not show cost of living price increases for consumers beyond 2012-13 in their modelling. Since Treasury model a carbon price between \$100 and \$200 per ton by 2050, (\$131 in real terms discounted for inflation), which is a significant rise from the initial price of \$23 per ton. Therefore wont consumer

prices escalate astronomically above those shown by treasury modelling? Won't the Government's proposed 'compensation' packages of increased welfare payments, or reduced taxes pale in comparison to the eventual consumer price increases?

- g) Why does Treasury model a nominal global carbon price in 2015 16 of between \$ 29 and \$61 when current prices in Europe, NZ and some US States falls well short of the lower core scenario of \$29?
- h) The booklet indicates that only Australia's 500 'highest polluters' will be taxed, but Treasury modelling assumes all emission sources are eventually covered except agriculture which comprises sheep and cattle, dairy, other animal and grains. The emissions intensive trade exposed (EITE) activities are shielded from the carbon price for direct emissions and for upstream emissions from electricity use initially. Government assistance is based on allocative baselines reflecting historical industry average and assistance is initially provided by the government allocating free carbon emission permits covering either 94.5 or 66 per cent of their emissions. However this rate of assistance — the number of permits per unit of output — is reduced by 1.3 per cent per year, before being assumed to phased out in five annual steps starting in 2022. So this means EITEs will have no government assistance by 2027. Doesn't that make claims on page 6 and elsewhere in the booklet that Government measures to support jobs in industries like aluminium, steel, cement and coal an outright lie? Whatever support there is initially will gradually reduce to nothing by 2027 and workers will be facing unemployment or retraining in a new industry.
- i) Treasury modelling assumes carbon capture and storage (CCS) technology, combined with coal and gas electricity generation, is assumed to be available on a commercial scale after 2021. Since there are no small scale working models which can guarantee captured CO2 cannot escape in the future isn't this an ambitious assumption? Has the government considered whether the coal and gas power generation industries would be exempt from carbon emission reductions if efficient CCS technology does not become available? If so, what impact would this have on the Government's 2050 target of reducing emissions by 80%?
- j) Treasury modelling assumes a **decline in gross state product** for all Australia states and territories between the 2010's and the 2040's except for the ACT which actually achieves an increase in gross state product over that period. Surely policy which predicts the only growth in gross state product to be in the ACT cannot be good policy for Australia?
- k) Treasury modelling projects the real price of oil and gas between now and 2050 to double. This would make the use of oil and gas for generation of power much less attractive. These assumptions are made under the 'medium global action' scenario. However, under this scenario the utilisation of gas and oil would become more costly when adding the cost of carbon emissions. This should impact demand. At the same time, discoveries of accessible reserves of gas are increasing exponentially at the moment. Therefore shouldn't there be downward pressures on at least real gas prices in a clean energy future where carbon emissions are cut by 80% and 'cheap renewable energy' replaces fossil fuels? Doesn't the projected

- artificially high real price for oil and gas simply show an artificially good comparison to replace oil and gas by more expensive, less efficient sources of energy including various renewables and or coal with CCS?
- Treasury modelling under the 'medium global action' scenario projects coal prices to initially rise in real terms before declining and levelling off to just under current prices in today's \$A by 2050. Projecting a stable rather than rising price for coal, versus a significantly rising oil and gas price, helps justify the as yet unknown but guessed at costs for 'carbon capture and storage' which is needed to make coal mining and coal power generation feasible in a 'medium action' scenario. Without this unjustified assumption, wouldn't treasury have to assume that under the medium action scenario and the government objective to reduce carbon emissions by 80% by 2050, the coal industry in Australia, and coal fired power generation would need to close down completely?
- m) In its modelling Treasury assumes around \$20 billion of investment in new generation capacity is projected over the next ten years, growing to \$100 billion to 2050. This includes between \$13 billion and \$29 billion in renewables, \$23 billion in gas and \$55 billion in coal generation. This increased expenditure is not factored in to the 0.7% assumed carbon tax CPI increase in 2012-13, therefore it isn't factored in to any government compensation package. Will the Government compensate consumers for some or all of this increase in costs when it is passed on to consumers in higher electricity prices in the future?
- 23. On page 7. It is stated that: "The carbon price will increase prices by 0.7 per cent over 2012 13, as measured by the CPI. This is much smaller than the: 2.5 per cent increase from the GST and related tax changes." Isn't this statement deliberately misleading because this is based on an initial carbon tax of just \$23, yet the carbon price is modelled to increase to \$131 per ton (in real terms up to \$200 per ton in future dollars), by 2050; therefore while the GST was a one-off increase, the carbon tax will cause an increase in prices every year to 2050?
- 24. If Treasury estimates are accurate and a carbon price of \$23 per ton will see CPI increase by 0.7%, then a carbon price of \$131 in today's dollars would mean a CPI rise of 3.99%?
- 25. If Treasury estimates are accurate and a carbon price of \$23 per ton will see average weekly household expenditure go up by \$9.90 per week, then a carbon price of \$131 in today's dollars would mean average household expenditure would eventually rise by \$56.39 per week in today's dollars or \$2,963.48 per year?
- 26. Doesn't point 25 above make the average \$10.10 per week government assistance look inadequate and the entire contents of page 9 of the booklet grossly misleading? This is so regardless of the payment assistance being increased annually in line with CPI increases because the CPI is measured based on a complete basket of goods and services many of which will not be directly impacted by a carbon price. For instance, power bills only make up a small portion of the CPI calculation so even if your power bills double, the CPI won't double and therefore the \$10.10 per week assistance, (almost half of which is designed to compensate for increased power bills), will not be increased by anywhere near the increased cost of living caused by the carbon price. Thus aren't the contents of page 10 are also misleading?

- 27. In addition to the above, isn't it true that tax cuts provided today diminish in real value as inflation sees incomes rise without adding real value, but putting people into higher tax brackets through the process known as bracket creep? Unless the government commits to increasing tax brackets with the CPI, then the government income tax take will automatically increase through bracket creep. In any event isn't it also true that since the tax break is based on a carbon price of just \$23 per ton and not the eventual real projected price of \$131 per ton in 2050, then even if the tax brackets increased with CPI the actual tax compensation will fall well short of the actual increased costs of living?
- 28. On page 12. It is stated that with the tax cuts in 2012 and 2015 a total of 1,100,000 more Australians will no longer need to pay income tax and submit a tax return. At a time when government debt is increasing exponentially, baby boomers are starting to retire and receive a pension, health costs are skyrocketing and aged care costs are increasing dramatically, isn't it a dangerous government strategy to reduce the income tax base?
- 29. Page 13 tells us that aged pensioners, veterans and disability benefit recipients will receive a 1.7% increase in their maximum rates. As shown at question 24. Isn't this insufficient to cover the real CPI impact of an eventual real carbon price in today's dollars of \$131?
- 30. Doesn't the point made at question 29. Apply equally to students, jobseekers who according to page 17 will also receive a 1.7% increase in their benefits?

I look forward to receiving your early response to these important questions.

Yours Sincerely

James W Doogue