# NARGA

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Committee Secretary
Select Committee on the Scrutiny of New Taxes
PO Box 6100
Parliament House
Canberra ACT 2600

Email: newtaxes@aph.gov.au

Dear Secretary,

**Submission: Inquiry into the Carbon Tax Mechanisms**

NARGA represents the independent retail grocery sector comprising over 4500 stores employing more than 190,000 people. This submission presents our concern that the proposed carbon (dioxide) tax will substantially increase grocery prices through its impact throughout the grocery supply chain, further erode the competitive position of local farmers and food processors in a grocery market that is increasingly relying in imports.

As the independent sector is the main supplier of groceries to people living outside of the major cities, it is more significantly affected by plans to tax diesel fuel through changes to the fuel excise rebate system. The carbon and related tax proposals therefore further erode the competitive position of the independent sector.

The proposed carbon (dioxide)tax will impact the local food supply chain but not impact food imports. Imports have already grown to $10 billion p.a. in a $90 billion grocery market. Taxing our own grocery supply chain will serve only to make local produce less competitive and increase the proportion of imported products sold in supermarkets.

The carbon tax, imposed on the 500 so-called major emitters will directly affect retailers through increases in electricity prices. The impact is significant as electricity is, after wages and rent, the most significant overhead cost for

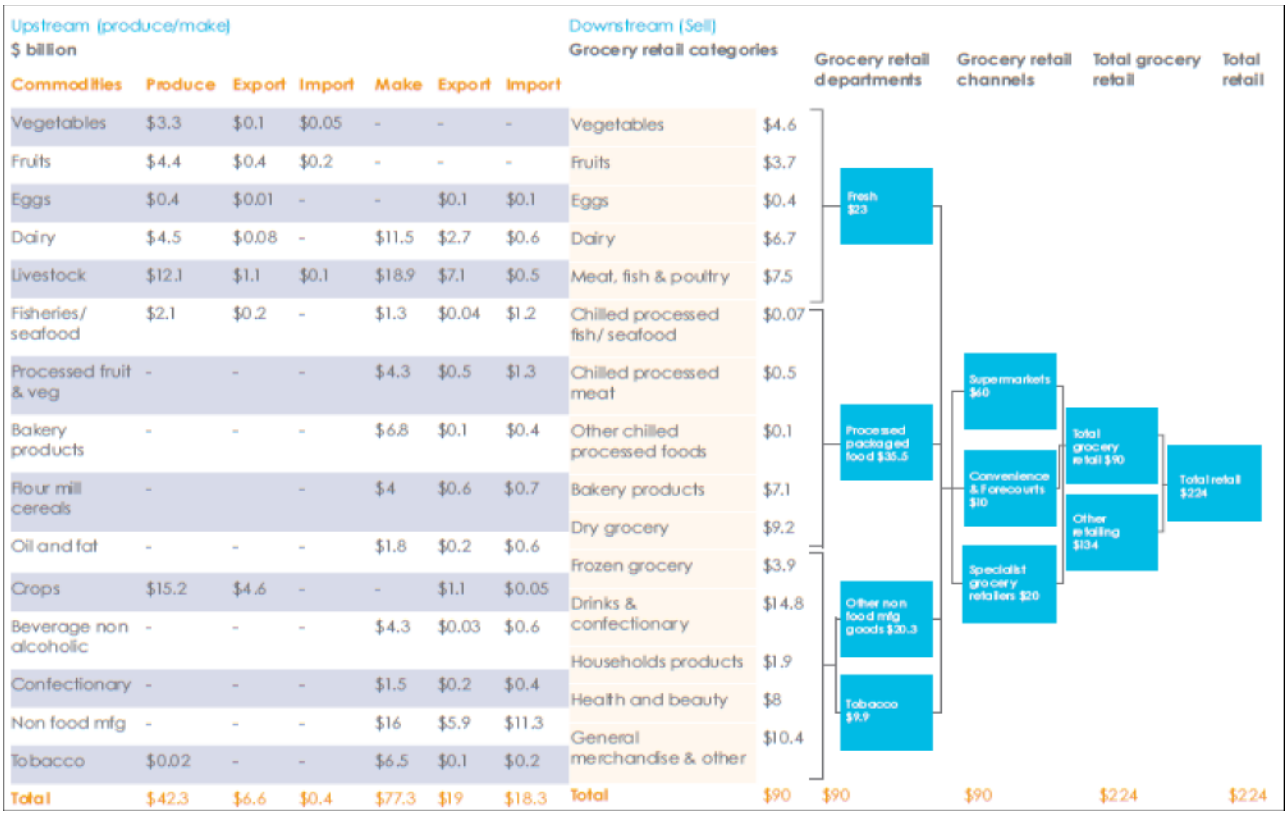
a supermarket as it is needed to run refrigerators, cool rooms, hot water, air conditioning, heating, lighting and computerised checkouts.

It is estimated that electricity prices are to increase by 15% - 22%[1] during the first year of a carbon tax, and will keep increasing each year thereafter. The first year's price increase will cost the average supermarket an average of $15,000 which would need to be recouped through higher retail prices or reduced staffing levels.

But in-store electricity costs are not the only cost impact that will push up grocery prices under a carbon tax.

NARGA commissioned Accenture Australia to conduct a review[2] of the Australian grocery sector. The review tracked the food supply from 'paddock to plate' showing the various stages in the production, processing transport and sale of groceries.

**Australia – 'Paddock to Plate' – Comparative rate of value add components (2007)**



| Upstream (produce/make) $ billion | | | | | | | Downstream (Sell) Grocery retail categories | |
|---|---|---|---|---|---|---|---|---|
| Commodities | Produce | Export | Import | Make | Export | Import | | |
| Vegetables | $3.3 | $0.1 | $0.05 | - | - | - | Vegetables | $4.6 |
| Fruits | $4.4 | $0.4 | $0.2 | - | - | - | Fruits | $3.7 |
| Eggs | $0.4 | $0.01 | - | - | $0.1 | $0.1 | Eggs | $0.4 |
| Dairy | $4.5 | $0.08 | - | $11.5 | $2.7 | $0.6 | Dairy | $6.7 |
| Livestock | $12.1 | $1.1 | $0.1 | $18.9 | $7.1 | $0.5 | Meat, fish & poultry | $7.5 |
| Fisheries/ seafood | $2.1 | $0.2 | - | $1.3 | $0.04 | $1.2 | Chilled processed fish/ seafood | $0.07 |
| Processed fruit & veg | - | - | - | $4.3 | $0.5 | $1.3 | Chilled processed meat | $0.5 |
| Bakery products | - | - | - | $6.8 | $0.1 | $0.4 | Other chilled processed foods | $0.1 |
| Flour mill cereals | - | | - | $4 | $0.6 | $0.7 | Bakery products | $7.1 |
| Oil and fat | - | - | - | $1.8 | $0.2 | $0.6 | Dry grocery | $9.2 |
| Crops | $15.2 | $4.6 | - | - | $1.1 | $0.05 | Frozen grocery | $3.9 |
| Beverage non alcoholic | - | - | - | $4.3 | $0.03 | $0.6 | Drinks & confectionary | $14.8 |
| Confectionary | - | - | - | $1.5 | $0.2 | $0.4 | Households products | $1.9 |
| Non food mfg | - | - | - | $16 | $5.9 | $11.3 | Health and beauty | $8 |
| Tobacco | $0.02 | - | - | $6.5 | $0.1 | $0.2 | General merchandise & other | $10.4 |
| Total | $42.3 | $6.6 | $0.4 | $77.3 | $19 | $18.3 | Total | $90 |



[1] NSW Treasury review
[2] The challenge to feed a growing nation, Accenture Australia, November 2010

The above chart outlines the total $90 billion chain, employing over 900,000 people[3].

The key takeout here is that the grocery supply chain is made up of a number of stages; on-farm production, processing, wholesaling and retailing. Transport links each stage to the next – often assisted by refrigeration to maintain a cold chain. Each stage is affected by the proposed carbon tax and the effect is cumulative.

The tax also affects other inputs. For example the on-farm production stage is impacted through the higher cost of fertiliser and electricity to pump water. The processing stage is affected by increased costs, including increases in the cost of packaging materials. Processing and manufacturing costs will also be affected by higher electricity process.

It is our understanding that the Treasury modelling of the impact of the proposed tax was based on the model used to determine the impact of the GST. The major difference between the carbon tax and the GST is that, whilst the GST is rebated at each stage, the impact of the carbon tax is cumulative – each stage of the grocery supply chain is impacted in turn.

It is also instructive to note that Treasury predictions relating to the GST were wrong. The level of GST revenue collected far exceeded Treasury predictions, suggesting that the Treasury assessment of its impact was also unreliable. We therefore place little reliance on Treasury's current predictions on the carbon (dioxide) tax.

It is unlikely that the complex nature of the grocery supply chain has been modelled effectively to determine the impact on grocery prices of the carbon (dioxide) tax and associated changes to the fuel excise system.

As there is no proposal for government to compensate farmers, processors, transporters, wholesalers or retailers, the full cost associated with the carbon tax will impact grocery prices.

As the detail of the Treasury's assessment of the impact of the carbon tax on the cost of living has not been released, it is not possible for us to critique the approach taken to assessing the tax's impact on grocery prices. However, as the average family spends in excess of $10,000 a year on groceries, each 1% increase in the cost of groceries will add $100.00 to the family's annual grocery bill, a substantial proportion of the promised compensation.

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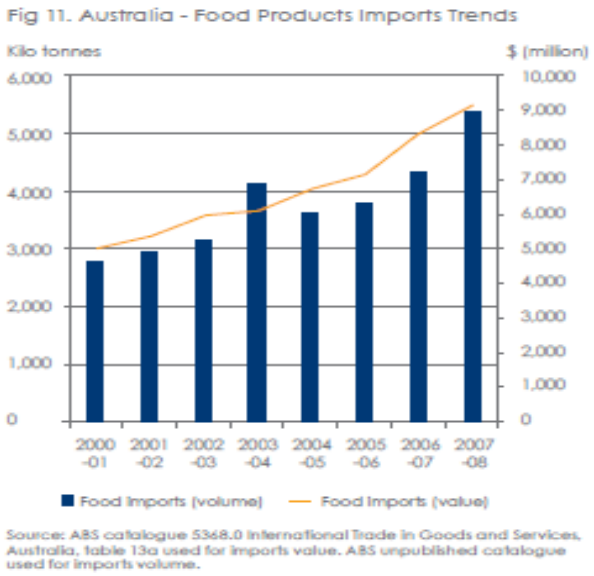
[3] Ibid p.36

In other words, people with less money to spend will be faced with higher retail prices. This is clearly recessionary.

We suggest that the Treasury's estimate of a net 0.7% carbon tax impact on the CPI is yet another under-estimate.

One way the grocery sector can adjust to higher local production costs is to import more food from overseas suppliers. Whilst the independent sector has a 'buy local' emphasis and preference, it has to compete in an unlevel playing field with the majors who have shown an increased inclination to purchase a variety of fresh and packaged product from overseas suppliers as the chart below demonstrates[4]:




Recent years have not seen a decline in the trend towards higher levels of imports, a trend that can only be accelerated by the proposed carbon tax.

Whilst discussions of the impact of a carbon (dioxide) tax has largely been on the basis of the initial level the tax - $23.00 per tonne – the incorporation of an 80% (by 2050) reduction target into the legislation will mean that the tax will need to rise substantially in order to achieve that objective. The Garnaut Climate Change Review[5] suggests that the carbon price under an emissions trading scheme would need to reach $200.00 a tonne (2007 dollars) at around 2050 and exceed $700 a tonne later this century in order to reach an 'acceptable' level of carbon dioxide in the atmosphere.

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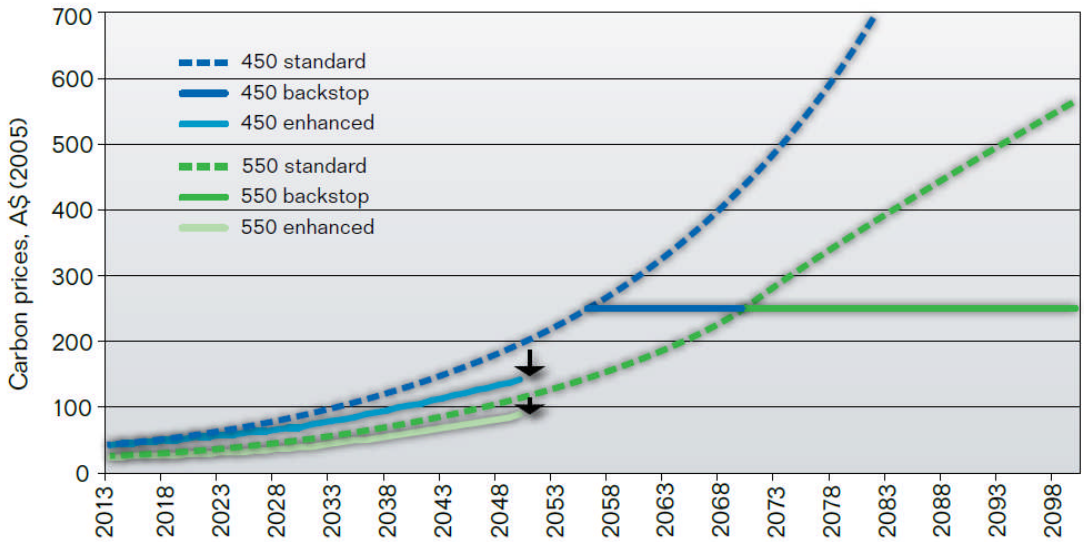
[4] Ibid p.16

[5] Garnaut G., The Garnaut Climate Change Review, Final Report, Commonwealth of Australia 2008

**Figure 11.1 Australia's carbon prices under different mitigation scenarios and technological assumptions**




Note: The rising carbon price paths are derived in GTEM and implemented in MMRF, except for the prices derived under the enhanced technology assumptions, which are implemented only in GTEM and reported up to 2050. The 450 and 550 price paths move on to the horizontal backstop path when they reach about $250/t $CO_2$-e. The two arrows show the extent to which the enhanced technology assumptions reduce the carbon price relative to the standard technology assumptions.

Note here that, under the proposed carbon tax legislation, the emissions trading scheme operating after July 2025 will still act as a tax, given that the government proposes to set a floor price for permits and, benefit from the auction of permits and indirectly control the permit price[6] through setting of the emissions trajectory and hence the emission cap.

Note also that the above graph demonstrates the fiction proposed by Prof. Garnaut which suggests that at around 2050 a technology will be discovered that is able to remove carbon dioxide from the atmosphere at around $250 a tonne, thereby putting a cap on what would otherwise be an ever increasing carbon price.

In his 2011 update[7] Prof. Garnaut suggests a starting price of between $20 and $30 per tonne with an annual uplift of 4% (suggesting that the price is

[6] It is proposed that permits be treated as personal property and as financial products. This suggests that as the value of permits increases under a carbon tax or trading regime, capital gains tax will be payable whenever permits are sold. Sectors holding permits will then be taxed in the tax.

[7] Garnaut R. The Garnaut Climate Change Review, Update 2011, Commonwealth of Australia, 2011. P.21

not being independently set by the market). As the proposed staring price for the carbon (dioxide) tax is $23.00 per tonne, a 4% annual uplift would see the carbon price reach $100.00 per tonne (in 2012 dollars) by 2050. It is doubtful that family compensation would be increased accordingly.
The impact on Australian family cost of living will increase year by year, directly through the carbon tax and indirectly through interest rates as the tax impacts the CPI.

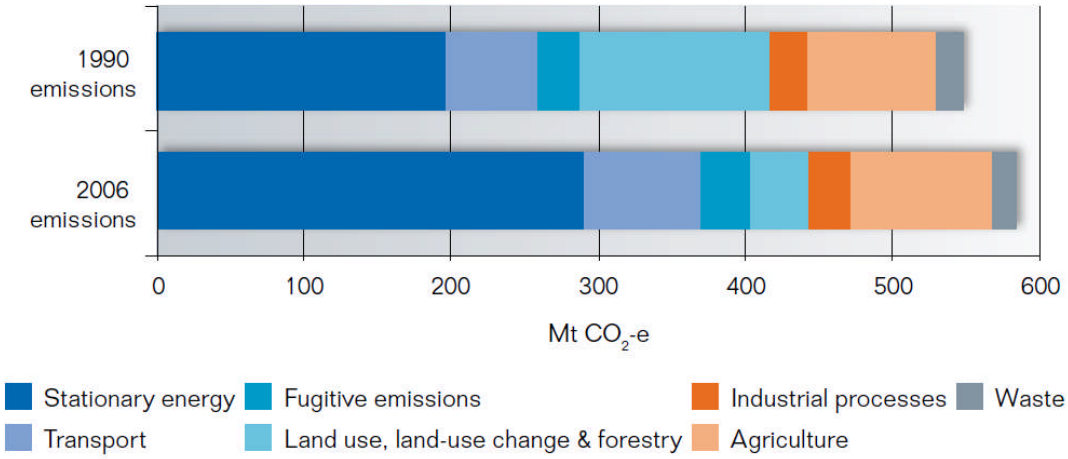
Surprisingly, it is clear from the details on the carbon tax released by the government that the tax will not of itself bring about the required level of reduction of carbon dioxide emissions. To achieve Australia's notional (as opposed to actual) reduction levels will necessitate the purchase of offsets or permits from overseas trading schemes to the tune of billions of dollars per annum – sending Australian tax payer dollars overseas.

We would suggest that there are better ways of spending tax payers' dollars.

A 'no regrets' approach could include investment in energy efficiency. An example of what is possible in this regard is Japan whose economy is based on a level of energy consumption about half of that of Australia per unit of GDP.

The Garnaut Climate Change review report[8] produced the following chart which raises concerns about our ability to reduce the level of carbon dioxide emissions, even under a carbon (dioxide) tax regime.

**Figure 7.2 Greenhouse gas emissions by sector, 1990 and 2006**




[8] Garnaut R., The Garnaut Climate Change Review, Final Report, Commonwealth of Australia, 2008 p.155

As is evident, apart from the proportion of emissions related to the generation of electricity, the bulk of the remaining emissions are due to the production of food and fibre – our agricultural sector – both in terms of directly attributable emissions and in terms of land use changes – and the transport of those materials.

To reduce emissions in these sectors would either require substantial transformations of them (using technologies as yet unknown) or substantial reductions in outputs, putting at risk our food security.

We also note that current reduction targets are supported by investment of public funds in the renewable energy sector. It is assumed that the technologies promoted by this sector do in fact reduce emissions and can keep on reducing emissions as the proportion of power generated by the sector expands.

Unfortunately this is not the case. Analysis of the contribution made to emission reduction by the wind energy sector tends to ignore the fact that, because the input from wind energy is intermittent, wind generating capacity needs to be backed up by other base load capacity. Most often this is provided by gas which can be ramped up relatively quickly to compensate for a drop in supply. However, these back up plants need to be left idling (a spinning reserve) so that they are in readiness should the need arise. These idling plants, and the need for these plants to kick in at short notice, substantially decrease the emissions saved through wind generation and, as the proportion of wind energy in the system increases, savings are further reduced as more instant response capacity is added to the grid. There comes a time when the proportion of idling capacity is so high that wind energy savings are close to negated.

The unreliability of wind power is demonstrated by the extract below. It shows that during periods of extreme heat and cold – which tend to be windless – the contribution to the energy supply provided by wind drops substantially below its rated capacity.

> *Texas has 10,135 megawatts of installed wind-generation capacity. That's nearly three times as much as any other state. But during three sweltering days last week, when the state set new records for electricity demand, the state's vast herd of turbines proved incapable of producing any serious amount of power.*
>
> *Consider the afternoon of August 2, when electricity demand hit 67,929 megawatts. Although electricity demand and prices were*

*peaking, output from the state's wind turbines was just 1,500 megawatts, or about 15 percent of their total nameplate capacity. Put another way, wind energy was able to provide only about 2.2 percent of the total power demand even though the installed capacity of Texas's wind turbines theoretically equals nearly 15 percent of peak demand. This was no anomaly. On four days in August 2010, when electricity demand set records, wind energy was able to contribute just 1, 2, 1, and 1 percent, respectively, of total demand.*

*Over the past few years, about $17 billion has been spent installing wind turbines in Texas. Another $8 billion has been allocated for transmission lines to carry the electricity generated by the turbines to distant cities. And now, Texas ratepayers are on the hook for much of that $25 billion, even though they can't count on the wind to keep their air conditioners running when temperatures soar. ...*

*The wind-energy lobby ... hype has obscured a dirty little secret: When power demand is highest, wind energy's output is generally low. The reverse is also true: Wind-energy production is usually highest during the middle of the night, when electricity use is lowest.*

*— Robert Bryce, senior fellow at the Manhattan Institute.*

The use of a carbon tax and related mechanisms to force a transition to 'renewable' energy, before that sector has shown that it can provide base load electricity at prices equivalent to fossil fuels, results in a bringing forward of unnecessarily high expenditure on energy generation to the current generation, when future generations which would be in better placed to meet these costs (because they would be wealthier) would need to spend less on what could by that time be better or proven technology.

This results in intergenerational inequity.

No account has been taken of the embodied energy associated with these alternative technologies. In the case of a photovoltaic system the solar panels have to be used for many years before they actually pay back the energy (and carbon dioxide emissions) associated with their production and installation. They operate only at optimum capacity if kept clean and then only for a relatively short period of time after which, depending on the technology used and their quality, their output starts to drop off, and they

would need to be replaced or augmented with additional panels to maintain output.

Wind farm owners now report that once turbines are out of warranty maintenance costs alone are equivalent to the cost of coal fired power generation.

On the basis of the above we would suggest that, before the Australian government imposes this new tax on an already fragile economy, that the following questions are addressed and that the tax proceed only if each question can be answered in the affirmative.

**A DOZEN CARBON (DIOXIDE) TAX QUESTIONS**

| No. | Question | Your Answer | Comment |
|---|---|---|---|
| 1. | Has the earth's temperature increased significantly over the last century? | Yes/No | World temperature records, cooperatively generated suggest that the earth has warmed about 0.7°C over the last century – but half of this increase occurred before 1940 when carbon dioxide emissions took off. However all records have been 'adjusted' and are criticised by in scientific peer reviewed papers as to their accuracy and reliability. The NZ record is currently under challenge in the High Court. The Australian record has similar deficiencies. |
| 2. | Is the level of increase significant or dangerous? | Yes/No | Rate of change difficult to separate from natural variation. Amount temperature will increase in the future is uncertain as climate models do not and cannot match temperature observations. Predictions of a substantial increase in temperature are based on a postulated 'feedback' the existence of which has not been verified by observation. |
| 3. | Is the temperature change unprecedented? | Yes/No | Long term records confirm the existence of a Medieval Warm Period, Roman Warm Period etc. when temperatures were warmer |

| | | | |
|---|---|---|---|
| | | | than they are now, suggesting that there is a significant natural cyclical element to variations in the temperature of the planet unrelated to carbon dioxide emissions. |
| 4. | Is there direct evidence that carbon dioxide is a key contributor to temperature rise? | Yes/No | The theoretical linkage between temperature and increasing levels of carbon dioxide in the atmosphere has not been confirmed by observation. e.g. The theoretical tropospheric 'hot spot' that was supposed to confirm the theory has not been found. |
| 5. | Have other theories or explanations for the temperature rise been disproven or discounted as insignificant? | Yes/No | Theories relate the fluctuations in the solar magnetic field with variations in incident cosmic rays and cloud formations and hence temperature. There is close correlation between temperature cycles and sunspot cycles. |
| 6. | Have natural factors been quantified and taken into account? | Yes/No | Scientists have shown a substantial proportion (if not all) of recent warming to be natural in origin. |
| 7. | Will the carbon tax make a meaningful reduction in carbon dioxide emissions? | Yes/No | Treasury modelling suggests not. |
| 8. | Can the carbon tax achieve the proposed cuts in national emissions? | Yes/No | Treasury suggests additional offsets need to be purchased offshore to achieve targeted reductions. |
| 9. | Can alternative sources of energy meet Australia's future energy needs? | Yes/No | Wind energy is unreliable and needs base load backup. Solar energy requires a means of storing energy (or backup) at night and is extremely costly. |
| 10. | Will other | Yes/No | The outcomes of Copenhagen and |

| | | | |
|---|---|---|---|
| | countries (major emitters) act in concert to the extent that a meaningful reduction in atmospheric concentrations will result? | | Cancun COPs suggest not. Unless all major emitters act, Australia's efforts would be futile. |
| 11. | Will reducing carbon dioxide concentrations bring about an improvement in the climate? | Yes/No | Only if a substantial proportion of temperature changes can definitively be linked to carbon dioxide concentrations in the atmosphere and meaningful reductions in concentration results from global action. Australia's actions alone will not achieve a reduction in future temperatures. |
| 12. | Will the benefits of reducing carbon dioxide emissions in Australia exceed the costs? (including opportunity costs?) | Yes/No | According to Garnaut and Stern benefits theoretically exceed costs. This outcome is reached only when economic analysis assumes extremely low discount rates, factors in pessimistic climate projections and resultant impacts, and assumes reducing emissions will automatically bring about a change in climate outcomes. |

We would be happy to provide copies of peer reviewed literature to back up each of our comments.

We ask each person reviewing the above questions to give their own answer to each one in turn. Should the individual answer to any question be 'No' (or even 'Uncertain'), the obvious response should be to commit to rejection of the carbon tax legislation

Please contact me should you have any questions.

Yours sincerely

Ken Henrick
**Chief Executive Officer**