



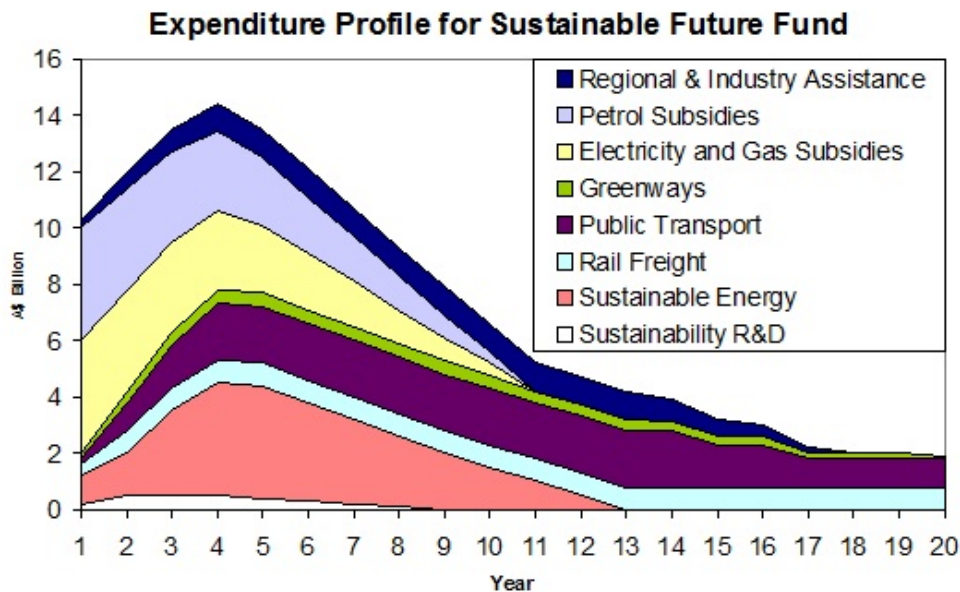
A Sustainable Futures Fund for a Fuel and Climate Emergency

Posted by [Phil Hart](#) on March 8, 2008 - 11:00am in [The Oil Drum: Australia/New Zealand](#)

Topic: [Policy/Politics](#)

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This is a guest post by Garry Glazebrook, who is an urban transport consultant and urban planning lecturer at the University of Technology, Sydney. The Sustainable Futures Fund is described in the Australian context, but with our population of 21 million and a local currency approaching 1:1 with the US dollar, the figures suggested here could be considered comparable with those required in a moderate size state in the USA.



Readers of TOD are well aware of the oil supply threat and its implications for society. Recent reports such as [“Crude Oil – The Supply Outlook”](#) by Energy Watch Group suggest global oil production could fall 50% by 2030, while research by [Jeff Rubin at CIBC](#) suggests OECD countries will experience an 8% fall in supply by 2012 due to delays in Megaprojects, declining production from existing fields and strong oil demand growth in OPEC, Russia and China.

Similarly, more and more people are aware of the potential for dramatic climate change, though few are perhaps fully across the critical nature of our current circumstance. In Australia, Professor [Ross Garnaut’s interim report](#) has frightened some State Premiers, with quotes such as these:

“Only urgent, large, and effective global policy change leaves any hope of holding atmospheric concentrations (CO₂e) at the 450 ppm or even the 550ppm levels” (p19) or “The review does not consider 'business as usual' a likely outcome” (p24).

However the [Climate Code Red](#) report by David Sprat and Philip Sutton makes for even scarier reading. Drawing on 250 references, many of them recent scientific papers, the authors call for recognition of a “sustainability emergency”, noting that global average temperatures have already risen 0.8 degrees C above per-industrial levels, that there is a further 0.6 degrees 'locked in' from past emissions, and that melting of the sea ice in the Arctic (which could happen in the next few years) would add 0.3 degrees due to albedo feedback. This would take us perilously close to the 2 degree “safe” limit assumed by many European Governments, but which scientists like James Hansen believe is already above the threshold for dangerous climate change.

How these two major threats develop and interact is the 64 million dollar question, but it is already clear that a dramatic change of course from current “business as usual” is required. Either governments foresee what will happen and act urgently, or we face a series of rolling recessions from the rising oil prices and the impact of significant carbon pricing. 2010 is perhaps shaping as a crunch year, with a new US government settling into its second year and the economy struggling out of a sub-prime mortgage-induced recession. In addition, we are approaching a demographic turning point, when large numbers of baby boomers begin to retire, and start drawing on savings rather than contributing to them.

How to avoid this coming crunch?

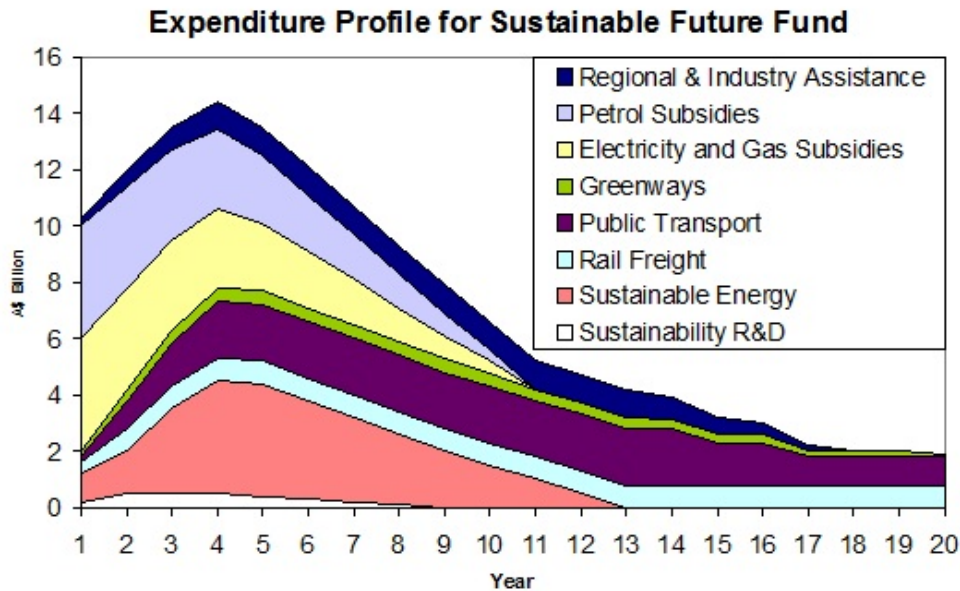
My suggestion is to move immediately to declare a “**Climate and Fuel Emergency**”; to institute carbon taxing on coal, oil and gas at point of production or import, as a prelude to carbon trading, and to establish a “**Sustainable Futures Fund**”.

This Sustainable Futures Fund would receive the revenue from the carbon taxes (later carbon trading) and allocate it to three key areas:

- Rapid deployment of renewable energy generation and support for new renewable energy technologies
- Rapid development of mass transit; networks of “greenways” for bicycles and small electric vehicles, and other sustainable transit initiatives
- Introduction of transitional assistance, targeted at those most at risk from the sudden shift in priorities.

Assistance would include electricity and gas subsidies for low income families, petrol subsidies for low income outer suburban and non-metropolitan families, and regional and industry adjustment assistance – for example for the Hunter Valley, Central Queensland and the Latrobe valley which are all tied to the coal industry, or to the current car manufacturing sector. Such assistance would be aimed at strengthening the capacity of the regions and firms to develop new industries or products which will contribute to rather than detract from sustainability.

Currently Australia produces some 320 million tonnes pa of CO₂ from electricity generation and transport. A carbon tax of A\$40/tonne CO₂ would equate to around \$120 per tonne of coal or 30c per litre of petrol. These price signals would drive expansion of existing renewable energy options such as wind and solar and accelerate the move to walking, cycling and public transport which has emerged in the last two years in Australia. For example, rail patronage grew 3.7% in Sydney last year, 20% in Melbourne in the last two years, and a staggering 41% in Perth following the opening of the new line to Mandurah last year and purchase of additional rollingstock.



The Sustainable Futures Fund would generate some \$13 billion in year one. This would allow electricity / gas subsidies of \$1000 on average for four million families, and a petrol subsidy of \$1000 for a further 4 million families. These subsidies would be wound down gradually over ten years to give people time to insulate their homes, install solar power, buy smaller vehicles and alter their travel behaviour. It would also enable an initial \$2.3 billion to be invested in renewable energy, sustainable transport and transitional industry and regional assistance.

By year four, the peak spending year, annual spending on these investments would total \$8.8 billion. This is designed to allow time to gear up major programs, and to avoid adding to current inflationary pressures or labour shortages caused by the current resources boom. It can be expected that the resources boom will be levelling off or declining in 4-5 years as Chinese and Indian growth rates slow, in part from the impact of peak oil and climate change mitigation efforts, and efforts to accelerate investment in renewable energy, rail and public transport will therefore provide counter-cyclical expenditure at that time.

Over time the renewable energy fund revenues would gradually wind down as CO₂ emissions taper out, as fossil fuel consumption should eventually be largely eliminated (unless carbon capture and storage can be proved effective on a wide scale). A profile of expenditure for the Sustainable Futures Fund is shown, with transitional family subsidies largely wound down within 10 years, although regional and industry assistance programs would continue up to 20 years.

A program of planned retirement of older coal fired power stations would be introduced. By 2030, virtually all our existing coal fired plants will be 45 – 50 years old in any event. The existing car fleet would also be almost entirely retired by 2030 – policies would be needed to phase out production or import of current generation cars within 7 years. Our electric rail systems could be converted to 100% greenpower within the next two years as large scale wind plants (as just proposed near Broken Hill) and solar (like the [concentrated solar PV plant](#) announced by Senator Wong on 25th February) rapidly gear up.

What could this achieve over the 20 year life of the fund?

- \$27.5 billion assistance to accelerate renewable energy, plus a further \$2.5 billion in R&D. In this context, the rise in general electricity prices and the fall in costs for renewable energies from scale economies should allow this assistance to be phased out within about twelve years.
- \$15.6 billion to upgrade our main interstate rail freight system, enabling a significant shift of

long distance to rail, which is three times more energy efficient than road freight. This will also reduce congestion and maintenance costs on major highways

- \$31.7 billion to significantly revamp our urban public transport systems. This would allow such projects as electrification and expansion of Adelaide's rail system, major new mass transit systems for growing areas such as the Gold and Sunshine Coasts, Perth and Western Sydney, expansion of bus priority and cross regional bus services, and bringing Sydney's rail system into the 21st century.
- \$7.4 billion to create a comprehensive network of "greenways", "greenlinks" and "green lanes" to allow safe, energy-efficient and healthy personal mobility in our cities and towns, using bicycles, electric bicycles, electric scooters and electric gophers. These will be needed even in the absence of climate change and peak oil to cater for the mobility needs of our rapidly ageing society.
- \$13.7 billion of regional and industry assistance to assist transition to a more sustainable future.

Without such a comprehensive approach, it is highly likely Australia will fail to make the necessary transition away from oil and fossil fuels in time to avoid massive social and economic damage.



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