

# SUBMISSION TO AUSTRALIA'S FUTURE TAX SYSTEM REVIEW

## TAXATION AND POLICY ON CLIMATE CHANGE RESPONSE, ENERGY EFFICIENCY AND RENEWABLE ENERGY

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To:

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## Introduction

This submission focuses on taxation issues relating to sustainable energy and climate change response.

For many decades, the focus of Australian energy policy has been on large investments in centralised energy supply systems with long time frames. Since these investments were seen to have critical importance in underpinning Australia's economic and social development, they attracted many subsidies and incentives. Indeed, much of our existing stationary energy infrastructure was built using public funds and publicly guaranteed low interest debt. At the same time, decisions relating to how efficiently energy is used were seen as the responsibility of individuals and businesses. Indeed, it was seen as a basic right to waste energy – as long as it was paid for.

Today's situation is dramatically different. Large, capital intensive, centralised energy systems must now compete with emerging alternatives that range in scale from micro-solutions to large scale. Smart control systems and sensors mean that energy use, supply and storage can be optimised in ways unimaginable even a few years ago. And innovation, economies of scale and 'learning effects' mean that relative costs of emerging energy solutions are falling rapidly while their performance is improving. Burning of fossil fuels now contributes 70% of Australia's greenhouse gas emissions, and billions of dollars each year are being invested in expanding energy systems that deliver low rates of financial return and increase our emissions instead of reducing them. Traditional energy supply thinking is now part of the problems of climate change and economic inefficiency.

Today, thousands of small investments by end users can compete with or replace a few large investments. For example, purchase of large numbers of fuel efficient hybrid cars provides the equivalent in terms of energy services to a large virtual oil field. Such actions avoid both the environmental impacts and many of the costs of finding and developing an oil field, and processing and supplying petrol. This approach also enhances energy security. End use efficiency, demand management and distributed energy generation in homes, businesses and industry avoids the need for a power station, transmission line and distribution network.

These changes have enormous implications for taxation: now a large project eligible for numerous tax advantages and supported by sophisticated financial capability competes with many small investments by relatively uninformed and inexperienced decision makers who may face significant transaction costs, apply high discount rates, and cannot capture some of the benefits of their actions. The energy supply industry now competes with the appliance and building industry to deliver useful energy-related services efficiently and cost-effectively. Further, the rapid changes in technology, climate science and community attitudes mean that taxation mechanisms that constrain innovation and voluntary action will undermine progress.

Policy tools such as taxation must confront a new paradigm with regard to energy. It is critical that taxation supports actions that are part of the solution, not part of the problem. So taxation policy must focus much more clearly on the societal objectives associated with energy, not on facilitating supply of more energy from traditional sources.

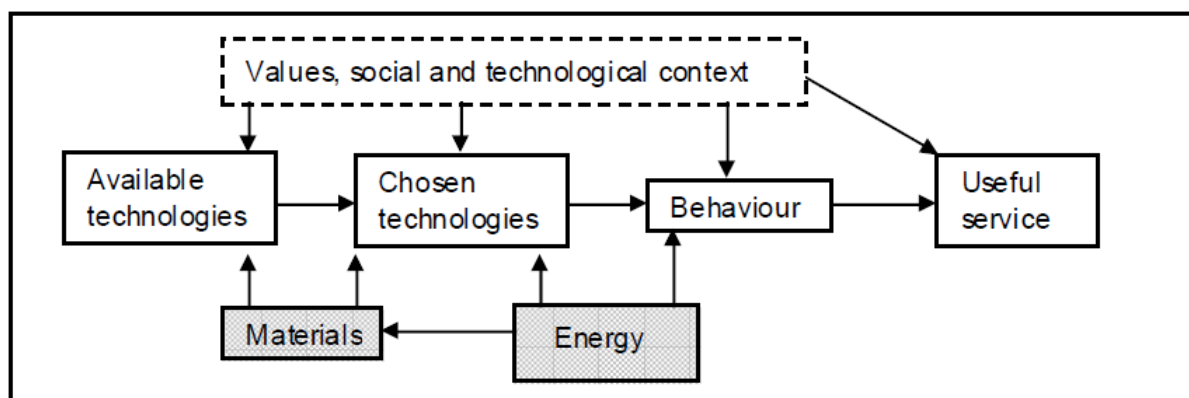
## Do We Need Energy?

A unit of electricity is not much use without some technology to use it and a desire or need for a useful service to be satisfied. So taxation policy should not focus on energy supply, but on the delivery of socially useful energy-related services. As Figure 1 illustrates, this may involve influencing the framing of a perceived energy service need, influencing behaviour related to this service, influencing selection of technologies, influencing research, development and commercialisation of energy service technologies, and so on.

The reality is that we need very little energy to provide most of the services we value. Unfortunately, the traditional energy supply sector, and the resources sector, either do not understand this, or see such a

paradigm shift as being against their interests. And policy makers in general seem to have struggled to understand the fundamentals of the new energy paradigm.

Figure 1. Energy's role in delivery of services (Pears, 2006 – *Imagining Australia's Energy Services Future*)



### Remove Existing Taxation Distortions

It makes sense to review existing government taxation and other policy measures to ensure that they are not working against climate change response. Many do. Failure to rectify these contradictions will increase the cost of carbon abatement and slow the national response to climate change.

Some examples include:

- Differential taxation impacts on repair of industrial and business equipment compared with upgrading efficiency. Basically, replacement of, for example, a damaged motor with a similar item gains a 100% tax deduction that year. Upgrading to an efficient variable speed drive and high efficiency motor is treated as an investment, so it is only eligible for a depreciation allowance. Now that many Chief Financial Officers are on short term contracts, why would they invest in something that will make their successor look good and add to short term costs. This issue was addressed in a major study for the National Framework on Energy Efficiency in 2004. The Review team should track down a copy of this report.
- Taxing of business vehicles and vehicle use for business purposes. In principle, incentives should be linked to delivery of productive services to business, not subsidies for inefficient vehicles or encouragement of wasteful vehicle car use. For example, offering a flat rate per km instead of a higher rate for larger cars would remove one incentive for waste. The increasing rate of benefit for greater travel is another obvious incentive to drive more
- The lower 4WD tariff rate should be increased to the passenger vehicle rate immediately. Even if the passenger vehicle rate declines to the 4WD level in 2010, this change will generate substantial short-term revenue and send a clear signal to car buyers.
- LPG conversion rebate. This is a difficult issue. LPG offers very limited greenhouse gas emission reductions per vehicle-kilometre. On one hand, conversion of existing vehicles to LPG allows low income households, who often own fuel guzzlers, to cope with recent petrol price increases. However, it also acts as an incentive to continue to use fuel guzzlers instead of replacing them or using more fuel-efficient vehicles where they are available. One option may be to offer the rebate only to conversions of vehicles built before a specified date, say 2005. Then low income owners of older vehicles could still be helped, but the current perverse incentive for new car buyers would be removed.
- Stamp duty on house sales. This adds to the barriers to people relocating to housing that is better suited to their changing needs in terms of size and location. However, this may be a small factor relative to other forces at work driving the inefficient utilisation of Australian housing, including asset tests on pensions, negative gearing, etc.

- Tax incentives for oil exploration. Incentives like this create serious market distortions. This incentive is based on a narrow and superficial argument that ‘we’re going to be short of oil, so we’d better encourage them to find more.’ It demonstrates an emphasis on supply-side at the expense of action on climate change. Alternatives such as incentives to purchase fuel-efficient and alternative fuel vehicles, development of low emission alternative fuel options, investment in infrastructure to support public transport, bicycle and other low impact vehicle use, and more integrated urban planning strategies could deliver a lower oil import bill more cost-effectively within a carbon-constrained future.
- Tax advantages for major projects favour such solutions over large numbers of small projects that could deliver a superior outcome.
- Small investors typically apply much higher hurdle rates of return on investments than do large businesses. So, as a society, we tend to over-invest in large scale energy systems and under-invest in small scale energy efficiency and distributed generation.

#### An Example of a New Approach: Access, not Mobility or Transport

Transport is not an end in itself. Indeed, the need to travel often reflects a failure to effectively co-locate the provision of a service with its user. Telecommunications can avoid the need for travel, as documented in a recent Telstra-funded study by ClimateRisk consultants. Sophisticated logistics systems can reduce the amount of travel. And fuel-efficient vehicles or public transport can provide low environmental [removed for privacy reasons] but they have a perverse outcome in that they encourage people to relocate activity to low congestion areas – but this increases congestion there after they have invested in relocation. So it could encourage inefficient location decisions. Shifting taxes and charges from ownership of cars to user charges can also be problematic: if people own more cars, there is a tendency for them to use them more, because even high running costs are small compared with the perceived benefits of accessing services. For example, if I want to go to for an evening out when I will spend \$100, \$10 for travel is a relatively minor cost.

#### Shelter or Housing?

Is a large, energy-inefficient house located a long way from public transport and services a societal asset? I suspect not, as it ties up large amounts of capital, wastes energy and requires maintenance. It also drives inefficient utilisation of urban land. Yet First Home Buyer schemes and negative gearing mechanisms make no distinction between shelter that cost-effectively satisfies people’s needs, and extravagance that should not be subsidised.

#### Conclusion

This Review is an exciting opportunity for Australia to adopt a taxation system that coherently and consistently promotes economically efficient delivery of environmental and social outcomes. I hope this opportunity is not missed.