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Mr. Philip Weickhardt
Commissioner
Productivity Commission
Level 28, 35 Collins Street
MELBOURNE Vic 3000

Sydney, 20 September 2006.

Re: Waste Generation and Resource Efficiency Inquiry

Dear Mr. Weickhardt,

I am pleased to attach this submission to the Commission's Inquiry into Waste Generation and Resource Efficiency in Australia, on behalf of the Australian Tyre Importers Group (ATIG).

ATIG is a non-for-profit organisation of most major tyre manufacturers represented in Australia. From 01 July 2006, our organisation also includes SPT, the holding company of the Goodyear and Dunlop brands with significant local production capacity: In view of this recent development the organisation is currently in the process of changing its name to Australian Tyre Industry Council, a process that we expect will be finalised in the next few weeks.

ATIG was initially established as a forum for discussion on issues affecting the tyre business and evolved into a major player in the search for an effective solution to the problem of waste tyres.

This submission specifically addresses the Draft Report and is intended to clarify both factual and economic analytical issues relating to current management of end-of-life tyres, tyres in the waste stream generally, and the proposed Product Stewardship Scheme for tyres.

Yours sincerely,

Silvio de Denaro
Secretary

attached

WASTE GENERATION AND RESOURCE EFFICIENCY INQUIRY: SUBMISSION TO THE PRODUCTIVITY COMMISSION'S DRAFT REPORT ON WASTE MANAGEMENT.

1: ***Introduction***

The Australian Tyre Importers Group (ATIG) welcomes this opportunity to comment on the Productivity Commission's Draft Report on Waste Management, and the discussion in some of the submissions and hearings that have flowed from it. Tyres have received considerable attention in the Draft Report and it is important to clarify both factual and economic analytical issues relating to current management of end-of-life tyres, tyres in the waste stream generally, and the proposed Product Stewardship Scheme for tyres.

We agree with the Commission's focus on efficiency in resource allocation as an objective for both waste management policy and resource recovery, particularly relating to:

- Waste management and landfills;
- Used tyre management;
- Market failure in used tyre markets;
- Economics of current used tyre collection and management arrangements; and
- The proposed product stewardship scheme-economic, institutional and regulatory issues.

2: ***Waste Management and Landfill Issues***

For some time now, slogans exhorting the total elimination of waste have created unrealistic expectations about what is practical and achievable in waste management in Australia. We agree with the Commission that slogans and rhetoric are not appropriate foundations for public policy, and that policy should be founded on solid analysis and good policy process. That is why the Australian tyre industry has been working with the Department of Environment and Heritage to develop a soundly based, rational and economically efficient approach to the issue of waste tyre management in Australia.

The Productivity Commission's predecessor, the Industry Commission, outlined the basic economics of recycling and waste management in its 1991 *Recycling* report. It showed how the optimal level of waste disposed and recycled would be determined by the marginal private and social costs and benefits in the various waste and recyclables markets. This report made it very clear that there were substantial impediments in Australia to the development of efficient waste markets, and to aligning private and social costs and benefits. These included few, if any, price signals for households in relation to their generation and treatment of wastes and inadequate pricing of waste management services such as landfills. It also pointed to the existence of substantial market failure in the form of public goods, information failures and environmental and health externalities.

In the fifteen years since that report was released, the pricing and management of landfills has improved to better reflect real costs and to reduce environmental hazards. However, the picture is still very patchy - there are still many legacy landfills that do not reflect best practice and that operate with unsustainably low gate prices. While in theory, gate regulation and fees should be designed to internalise externalities, this is not always the case. Fee increases for local government facilities, including tips, are often limited to CPI adjustments. As

a result, there are still many landfill facilities around Australia where gate prices have not been adjusted to reflect full economic costs, and where operators do not have revenue adequate to implement best practice technologies.

Price signals for consumers/households are still limited. In new areas where markets are opening up, as for some recyclables and reprocessed products, pricing is still developing with the markets. These markets are immature; information flows around the markets may be poor about products, players and prices. Market failures abound in such emerging markets, with inadequate information, public goods such as research, and collective goods such as industry standards and statistics.

Regulatory arrangements are also variable between facilities and jurisdictions. Even where regulations prohibit certain types of waste from entering a facility, compliance regimes may not be strong enough to prevent non-conforming waste. Environmental agencies often lack the resources for effective enforcement of waste management regulations.

While landfill levies have been introduced in most states, the revenue raised does not necessarily correct these market imperfections and failures, as the Commission has highlighted.

The Commission is right to resurrect landfills and give them an appropriate place in waste management, as opposed to those who would see them eliminated altogether. However, the Commission goes too far in assuming that because modern landfills can operate to overcome major environmental and health risks, that most landfills in Australia do operate in such a fashion. Furthermore, the fact that regulation and technology can be effective in overcoming environmental and health threats in landfills does not mean that they are necessarily economically efficient.

The mixed performance of landfills does not provide an economically efficient foundation for waste management and recycling in Australia. As long as landfills accept waste at less than its marginal social cost, markets for recyclables will be distorted. Materials that would be recovered in an efficiently operating market will instead go to landfill.

Thus, the Australian tyre industry is caught in the middle. On the one hand, governments are seeking solutions to waste tyre

problems and to reduce the quantity going to landfill, while on the other, inconsistent and inefficient landfill policies discourage it.

3: ***Tyre Waste Management Issues***

When tyres are worn to the point where they must be removed from a vehicle, they are still a rich source of recoverable materials and energy. Tyres have been reprocessed into a range of products and energy for many years. In addition, there is a wide range of potential uses of tyre-derived products (TDPs) that are currently under-utilised in Australia as a result of regulatory restrictions and market failures such as lack of industry standards and poor market information.

The larger the tyre, and the less it is worn, the more attractive it is to reprocess, as a rule. As a result, most heavy tyres within a reasonable distance of capital cities are reprocessed already. Australia's end of life (EOL) tyre management issues centre on passenger car and other small tyres, such as for motorcycles.

Disposal of whole tyres in landfills is not a satisfactory solution. They `float' through the landfill, creating tracks, air pockets and voids and damage liners and covers. They create serious fire hazards. Underground tyre fires are very difficult to control. One UK fire lasted for a decade. While tyre synthetic rubbers are designed to be relatively inert in the atmosphere, they release harmful chemicals when burnt, adversely affecting the organic decomposition processes in the landfill itself, and creating harmful emissions to the air, soil and groundwater. Whole tyres dumped or stockpiled in the open can contribute to the breeding of vermin and mosquitoes, and the spread of mosquito-born diseases. These are widely recognised internationally as external costs of whole tyre disposal.

To prevent these impacts, at many landfills, gate fees have been increased to try to cover the true costs of disposal and ongoing management. Disposal of whole tyres is prohibited in several states - they must be shredded prior to disposal. However, this is not the case in all jurisdictions. Nor is it feasible in locations remote from shredding facilities. There are still Many, particularly legacy, landfill sites in Australia where whole tyres continue to create environmental problems. There are also many landfills whose charging practices do not cover the full costs of waste tyre management, as indicated above.

While compulsory shredding prior to land filling may be an effective regulatory response to the problem of whole tyres in landfills, it is not necessarily economically efficient. Shredding or chipping converts a waste product into a potentially useful input to the manufacture of tyre-derived products, but low landfill gate fees and poorly developed markets (discussed below) often militate against their use. As a result, significant quantities of shredded tyres are disposed in landfills around Australia when that is not an economically efficient outcome. That is not to say that used tyres should never be disposed of in landfill. Disposal may be the most efficient outcome from a resource allocative perspective, particularly in remote locations where high transport costs would make recovery and reprocessing inefficient.

Furthermore, there is a significant illegal dumping and stockpiling problem. It is estimated that 11 percent of all EOL tyres entering the waste stream are disposed of illegally, most of them passenger car tyres. Not only do they represent a fire risk, as outlined above, but dumping in gullies and creeks can disrupt waterways. In the landscape, they also provide breeding sites for vermin and mosquitoes. Clean-up costs can be quite substantial as well. Illegal disposal occurs in urban areas as well as in more remote locations.

4. ***Market Failure***

The environmental and health externalities of waste tyres, outlined above, are well understood around the world. Regulation has reduced the risk of fire around Australia, and the externalities of landfills themselves, so that the major external costs are probably now related to legacy and transitional sites and illegal dumping and storage. These threats will always require management.

However, there are other sources of market failure that are currently leading to inefficient resource use, but which may be reduced permanently with appropriate action by both governments and industry. These stem from:

- Inadequate information in a number of areas,
- The public goods nature of research and development, leading to under provision; and

- The inability of the immature tyre derived products markets to provide collective goods for themselves, such as industry statistics and quality standards.

(a) Information

Information is the common thread through these inter-related sources of market failure. They are exemplified and compounded by some governments' failure to assess certain tyre-derived products on objective performance standards and insistence on the use of virgin materials in products such as rubberised asphalt.

Good information is the life-blood of efficient markets. However, at every stage, from the design of new tyres, consumer choices, through collection of used tyres to sale to reprocessors or eventual disposal (or export), information failures can lead to inefficient resource use.

Consultancy reports for the Department of Environment and Heritage and the tyre industry have indicated that collectors are not well informed about market opportunities. Used tyre collection is an imperfectly competitive industry, characterised by a large number of operators, with easy entry - easy exit, and imperfect information. There is considerable turnover among collectors. Collectors are often poorly informed about opportunities and about realistic prices. Many reprocessors find it difficult to maintain regular collection arrangements.

The frequent entry and exit of collectors means that they tend to be inexperienced in the markets for used tyres, and potential sellers and buyers do not know each other well if at all. This makes it difficult for reprocessors to access supplies of tyres, and particularly for specialised markets to develop.

(b) Public and collective goods

In a competitive industry with low barriers to entry, it is difficult for firms to appropriate to themselves the benefits of their research and development. Research is a classic form of public good. Various policies have been developed by governments to overcome inadequate provision of research, generally and for particular industries.

The Australian tyre industry is aware of a number of examples where inability to protect intellectual property has been a disincentive to introduction of innovative uses of used tyres or tyre-derived products. Details can be provided to the Commission on request.

Collective goods are a special form of public goods, where the benefits accrue to a group, rather than the public as a whole. Nevertheless, they still constitute a form of market failure in that individual companies are unable to appropriate the benefits themselves.

(c) Industry statistics and quality standards

Well established industries often provide a range of collective goods, such as statistics and quality standards, for themselves. The tyre-derived products industry is relatively new and immature, and is not yet in a position to provide such services.

The lack of industry statistics affects the development of all uses of used tyres. Information is inadequate about potential supplies to would-be users, and about potential uses themselves. Such information is vital to the development of markets.

Quality standards are another important service provided by industry associations. The lack of independent quality standards is impeding acceptance of tyre-derived products as substitutes for virgin materials. An example is the difficulty producers of rubberised asphalts have had in gaining acceptance of their products by certain state road authorities. Building and construction standards that specify virgin materials, rather than performance put regulatory impediments in the way of efficient resource allocation. However, if the standards themselves do not exist, then even performance-based regulation cannot lead to efficient markets.

5. ***Current Used Tyre Disposal Charges***

The Australian tyre industry has been attempting to deal with these issues for some years now. Most tyre retailers charge consumers an average of between $2-3 per tyre to dispose of used tyres when they are changed. This is not universal, and information to tyre consumers about the charge is highly variable. Some retailers give consumers information about the charge, but others do not. Detailed information about the costs

of collection, treatment and disposal of EOL tyres is contained in the consultancy report prepared by URS (December 2005, available from the ATIG website at www.atig.org.au).

The disposal charge is used to pay for the collection, treatment and disposal of the used tyres. Collectors have an incentive to sell tyres to reprocessors for a positive value rather than pay for waste disposal. The collection charge is an administered fee that varies from place to place. Fees tend to be higher in rural and regional areas, reflecting higher transport costs, although their disposal costs may be lower. The fee does not attempt to internalise externalities, nor does it provide revenue to deal with the other forms of market failure outlined above.

The market conditions for used tyres vary from place to place and for tyres of different sizes and qualities. Large tyres (e.g. truck and bus, etc.) find a ready market for reprocessing, but the markets for smaller tyres such as passenger vehicle tyres are more variable and those for earthmoving tyres are very limited due to their size. The URS report indicates that landfill costs to collectors are approximately $150 per tonne, while collectors are estimated to pay transformers up to $1.00 per tyre. On the other hand, retreaders may pay collectors approximately $10 per passenger tyre. These conditions vary considerably around the country. For example, in Victoria, the cement industry uses tyres as a fuel - collectors pay the cement industry to take the tyres rather than dispose of them in landfill. The collection fee is haphazard in its application. It may be used to subsidise economically inefficient uses of tyres while potentially efficient uses go unrecognised.

In contrast to this very mixed picture, the URS study has shown that the real resource costs of waste tyre management are now between $0.85 - $1.00. Furthermore, once the market failures identified above are rectified, it estimates that 90 percent of tyres could be reprocessed efficiently in a sustainable market (this is an outcome, not a target). In such a market, the resource value of the EOL tyres would be recognised and they would be positively valued, so that no collection fee would be required. This means that the current collection charge is excessive. Thus, over $1 per tyre is transferred from consumers to collectors, representing dead weight losses to consumers.

Furthermore, collection fee does not ensure that collectors dispose of the tyres legally. While most of them do, it is possible for some unscrupulous operators to pocket the levy and dump the tyres illegally. The highly competitive nature of the collection industry, and the high turnover of operators makes it particularly difficult to ensure compliance with standards.

In summary, while the industry has been attempting to deal with waste tyre problems, the current disposal charges do not overcome the market failures identified above, and do not provide a deterrent (and may even provide an incentive) for illegal disposal.

6. ***The Proposed Product Stewardship Scheme***

The Australian tyre industry has reached the conclusion that the most effective and efficient means of overcoming these problems is to replace the current disposal-oriented arrangements with a product stewardship scheme with an Advanced Disposal Fee (ADF). This fee would be levied at the time a tyre enters the Australian market, either on original equipment or as replacement loose domestically manufactured or loose tyres.

The point of entry is the most stable part of the tyre industry, with a small number of firms. The scheme would be run by the industry itself with low administrative costs. As the revenue would be used to fund activities to overcome the market failures identified above and to support temporarily various end-uses, all downstream parts of the industry would have an incentive to comply, and collection of data for monitoring and evaluation would be straightforward. All the players would have an incentive to identify themselves. It would also be a disincentive to illegal dumping. As the current inefficient collection fee system would eventually be replaced, costs to consumers would fall.

The only group that might have a disincentive to participate would be the suppliers to tyres as the fee would have to be built in to product prices. However, at 85 cents per passenger tyre equivalent, these costs are unlikely to significantly affect the price of new vehicles. For the replacement tyre market, the fee represents a significant reduction on the current disposal fee applied to the old tyres. Nevertheless, it is vital to the success of

the scheme that the scope for free-riding be removed through a co-regulatory arrangement with the Australian Government.

The Federated Chamber of Automotive Industries (FCAI) has claimed that the scheme would increase their costs by $20 - $30 per car. We find this an extraordinary claim, and fail to see how an additional cost of less than $5 per vehicle can translate into a five- or six-fold increase. Local car manufacturers would not have any extra administrative burden to bear as the ADF would be paid by the tyre manufacturers or importers. The only section of the vehicle industry that would bear any administrative costs of the scheme would be car importers, and the costs to them would be insignificant compared to the impacts on costs of such factors as exchange rates and transport costs. We should stress the temporary nature of this scheme: its life-span is not forecast to exceed 10 years from the date of implementation.

The FCAI has also claimed in the draft report hearings (Transcript, 31/07/06, pp14-5) that the scheme is setting an arbitrary `target' to divert 90 percent of tyres from the waste stream. This is simply not true. The *outcome* of overcoming the impediments to efficient tyre-derived product markets is estimated to be the recovery of 90 percent of the used tyre resource. It is neither a target, nor arbitrary. Under the current arrangements, the car industry does not bear any of the costs associated with tyres in the waste stream, regardless of how inefficient the current arrangements may be. The scheme has the additional advantage of making the costs of used tyre more transparent, so that they will be more apparent at every stage of the product life cycle.

7. ***Conclusions***

The Australian tyre industry is convinced that the proposed scheme would provide significant net benefits to the Australian community. It satisfies all of the criteria set out by the Commission for an EPR scheme (Draft Report, p XXXIII). Furthermore, the scheme is only temporary. Once the predominantly information-related market failures are overcome, the scheme would no longer be necessary as markets would be sustainable and mature and the resource value of used tyres would be recognised in positive prices.

The Australian tyre industry therefore submits that the Commission should remove tyres from its list of doubtful EPR schemes, and support it as a welfare enhancing policy initiative.