AUSTRALIAN COUNCIL OF RECYCLERS INC
THE VOICE OF THE RECYCLING INDUSTRY

Waste Generation and Resource Efficiency
Productivity Commission
Locked Bag 2
Collins Street East, Melbourne, Vic, 8003

7th July 2006

Draft Waste Management report following Productivity Commission's Inquiry into Waste Generation and Resource Efficiency.

Dear Commissioner Weickhardt,

The Australian Council of Recyclers (ACOR) is pleased to provide its response to the Commission's draft report on Waste Management, and would like to support this response with a verbal presentation at the Commission's upcoming Sydney hearings.

ACOR believes that the Draft Report falls well short of the terms of reference presented to the Commission. The Commission was directed to produce a report on Waste Generation and Resource Efficiency and instead produced a report titled "Waste Management" (which might more accurately have been titled "Waste Disposal"), in effect negating the purpose of the Inquiry. It appears that it was just "too hard" to fulfil the original terms of reference, but there is no indication that these will be covered in an additional report.

ACOR believes two fundamental areas of concern must be addressed before proceeding with a detailed response on technical matters in the draft report:

1) Waste Policy must be integrated with Resource Policy to deliver cost effective materials supply through sustainable resource management. The draft report, contrary to virtually every government waste policy around the world, would lead to a schizophrenic separation between waste and resources policy.

2) Sustainable Resource Management requires that we "get right the price for the services of nature". That is, we need to properly value the delivery of eco-services such as greenhouse gas abatement and resource conservation. Contrary to community attitudes, the draft report recognises no case for using waste management policy to address global warming, doesn't recognise any inherent value in resource conservation and refuses to come to grips with the concept of resource efficiency or the social value of recycling.

The following sections more fully explain the basis of ACOR's concerns in relation to these two key points.

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1) Waste Policy Integration with Resource Policy.

The draft report quotes ACOR's February submission arguing that Australian governments replace the "take-make-waste" pattern with a more sustainable mode of consumption, reuse and recycling.

The draft report recognises that "One interpretation of this argument is that waste management practices are deficient because they would not be suitable if continued unchanged into the long term future. This is almost certainly true, but is not necessarily a valid reason for government intervention" (page 97).

The Commission's rejection of ACOR's position is therefore surprising, but especially that it recommends Australian policy makers effectively (and illogically) separate waste as a "downstream" issue from resource policies as an "upstream" issue.

On page XXVII the draft report says, "The Commission considers that, to the extent that there is a case for intervention, such upstream issues should be addressed as directly as possible, not through waste management policy. Using waste management to address these issues is likely to be inefficient and ineffective. For example, if conservation of old growth forests were a policy priority, subsidising newspaper recycling on the grounds that this would relieve harvesting pressures on those forests would be largely futile. This is because virgin newsprint is predominantly made from plantation-grown wood."

This is certainly a spurious argument. How much newspaper in Australia is made from old growth forests? Why not instead recognise that Australian governments' waste recycling policies' focus on manufacture for recycling has in turn lead to an increased upstream focus on the need to design products to enhance their recyclability? ACOR believes that recycling can have the most cost effective impacts on upstream resource management and this is especially the case in terms of packaging materials.

The Commission clearly doesn't recognise the reason for the enthusiastic adoption by the Australian community of recycling systems. Most domestic recycling currently undertaken is not for the purpose of reducing "downstream" pollutant emission from landfills, but to reduce upstream impacts. Plastic bottles and metal packaging are not known for landfill pollution. While the community obviously values the conservation of materials and embodied energy, the Commission seems unable to understand how to value resource conservation, confusing market price adjustments that "increase supply" (page 351) for an actual ability to extend the supply of finite resources.

The Commission's only real justification for this policy choice follows closely the submission of the Business Roundtable for Sustainable Development (BRSD), which supports its position by reference to the COAG principles, citing cost benefit analysis and asserting that it is ineffective to address resource issues with downstream policy. This cost benefit approach also ignores the benefits that the community puts on recycling.

While the Commission supports the COAG principle of cost benefit analysis, it does not even consider in the draft report how difficult it might be to deliver resource efficiency by relying only on upstream policy measures in isolation. How cost effective would it be to implement the novel split of resource and waste policy that the Commission favours? In taking this position the Commission has in effect disregarded another key COAG principle of cost-effectiveness. The terms of reference required the Commission to address resource efficiency, and to consistently apply the COAG principles, the Commission should not substitute a cost benefit analysis assuming current materials prices for a cost effectiveness analysis of resource efficiency under its recommended policy regime.

In fact in an interview recorded in the Environment Manager (Issue 579), the Commissioner was reported as acknowledging that:

"the commission hadn't looked at upstream impacts "in great detail". This is partly because "we really feel that is a study in itself and needs to be done raw material by raw material, and situation by situation and would be a very lengthy and extensive study in its own right".

But that resource focus is surely what the Inquiry's terms of reference required and the fact that the Commission did not do it is obviously a reason why the draft report title does not match the Commission's terms of reference. The complexity of this separate upstream focus that the Commission favours is one of the key reasons that federal and state governments adopted landfill avoidance targets as a way of addressing an obvious and growing problem. More than 90% of waste materials can be characterised as either metals, organics, paper, plastics or inerts and recycled without arranging "a very lengthy and extensive study" on every raw material in every situation.

However, even if the Commission did such a study, it appears that it does not have any analytical means of valuing the upstream impact reduction in the way that the Australian community does. The community clearly values resource conservation highly enough to willingly spend more on recycling than on disposal.

The community's desire is not going to disappear because the inquiry has pointed out the obvious about the cost of recycling of some waste streams exceeding the cost of disposal. But if government policy were to shift to managing resource impacts upstream only, then the logical approach would be that which the Commission has recommended for lead-acid batteries - "raw material by raw material, and situation by situation" every product and material of concern would have its own "non-waste-system" producer responsibility system applied to it. The cost of such a system on business would truly be astronomical.

Increasingly, the community is seeing wastes as not merely "wastes" but as "wasted resources". There is a growing appreciation for a need for a paradigm shift from waste management to resource management. Indeed, European policy is for the integrated management of wastes and resources, or a "closed loop" approach to sustainable consumption. In this view, there is a value in resource conservation which the Commission's terms of reference required it to address, but which the draft report rejects. The draft report is only able to justify this rejection of the value of "resource conservation" with arguments like "rising prices encourage exploration for new supplies" (page 351) which is admitting that our generation will push resource price rises onto future generations. The draft report continues this theme saying "As there appears to be no market failure associated with extraction rates for finite resources, it is not appropriate to treat resource depletion as an externality". What the Commission is supporting is in fact intergenerational cost transfer, which is fundamentally unsustainable behaviour. Although in analysing this argument the Commission does say, "Whether this is consistent with sustainable development needs to be considered" (page 103), it is obvious what conclusion the Commission has reached.

In the same vein, it is impossible to understand how the Commission justifies the rejection of resource conservation in Box 2 on page XXVIII, "we do not know with any precision what the resource needs of future generations will be, so it is difficult to know what needs to be conserved". The Commission is recommending nothing be conserved, because it puts no value on the conservation of any resources. Surely a more reasonable starting point than total ignorance of future resource needs is that adopted by advanced societies around the world: "What we need, future generations will probably need, so we should behave as good stewards in the management of these resources".

World's-best waste policy requires integration with resource policy to ensure the growing pool of resources in the waste stream is allowed to compete in parallel with the pool of virgin resources being produced afresh. This enlarges the available pool of total resources and maximises opportunities for manufacturers to become internationally competitive, low-cost producers into the long term (ie sustainably). This is because such producers are now able to access reliable sources of cheaper alternative raw materials. These 'secondary' resources may at worst be comparable in both final price and quality to virgin materials at current prices and thus avoid future rises in resource prices that the Commission views as inevitable.

2) Sustainable Resource Management and Eco Service valuation

ACOR's submission indicated that from an economic perspective, what was required was to "get right the price for the services of nature". However because the Commission's position is that there is no value in eco-services such as resource conservation (for instance at page 351) the Commission has recommended that this not be taken account of in waste policies, even where it has recognised government may place a value on eco-services (such as greenhouse gas abatement).

Because the Commission cannot address the value of recycling on the "macro" issues, it is unable to deal with the "avoided virgin materials extraction benefits" that come from recycling. The Commission notes on page 2:
"The terms of reference also direct the Commission to adopt a life-cycle perspective that incorporates 'raw material extraction and processing, product design, manufacture, use and end of life management'. Waste may be generated during the extraction of raw materials, the processing of those materials to intermediate and final products, and the consumption of final products.

The product life cycle approach required the Commission to consider if it were appropriate to cover the on-site disposal of waste. On-site disposal is an integral feature of many upstream activities and can account for very considerable amounts of waste of one sort or another. For example, large amounts of residue are left after cropping or forest harvesting, and mineral processing can result in stockpiles of byproducts accumulating on or adjacent to processing plants (for example, the red mud associated with alumina refining).

However, the Commission was advised early in the process that it had been the government's intention for the inquiry to concentrate on off-site, not on-site disposal issues, when it drafted the terms of reference."

It is one thing not to concentrate on on-site impacts of waste from virgin materials extraction. It is quite another to ignore the benefits of the amelioration of precisely those upstream impacts when they can be avoided by recycling. These upstream impacts are exactly the sort of environmental impacts that the public wants to see reduced by recycling and it is not acceptable that the Commission disregards them from consideration. For example, in the mid 1990's the USA EPA estimated that the energy savings from use of recycled materials in place of virgin materials were:

- Aluminium 95%
- Copper 85%
- Lead 65%
- Zinc 60%
- Plastics 80+%

In the case of paper, recycled paper uses 64% less energy and 50% less water, resulting in 74% less air pollution, 35% less water pollution, saves 17 trees and creates 5 times more jobs.

In the case of iron and steel, energy savings are 74%, 90% savings in virgin materials, 86% reduction in air pollution, 40% reduction in water use, 76% reduction in water pollution, 97% savings in mining wastes and 105% reduction in consumer wastes generated.

Two recent reports from Europe that consider the life cycle assessment and cost benefit of recycling versus landfill and incineration can be found at www.eea.europa.eu (titled "Paper and Cardboard - Recovery or Disposal?") and at www.wrap.org.uk (titled "Environmental Benefits of Recycling").. The European Environment Agency Report selected 9 LCA studies and 9 CBA studies following a thorough literature search. The UK Government Waste & Resources Action Programme evaluated 272 studies and used 55 of them. The Foreword to the latter report states,

> "The message for policy makers and practitioners is unequivocal. Recycling is good for the environment, saves energy, reduces raw material extraction and combats climate change. It has a vital role to play as waste and resource strategies are reviewed to meet the challenges posed by European Directives, as well as in moving the UK towards more sustainable patterns of consumption and production and in combating climate change by reducing greenhouse gas emissions.
>
> The environmental benefits demonstrated by this study show that it is time for recycling to take its rightful place at the heart of sustainable waste management and resource efficiency, and reinforce its clear contribution to reducing greenhouse gas emissions."

How can the commission ignore such significant upstream and downstream contributions?

The Commission notes this concern in its Key Points on page 43, but ignores it in its findings:

> "There is a growing public concern over the upstream environmental impacts and the sustainability of natural resource use associated with production and consumption."
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> While the Commission recognises the high recycling rate for aluminium (page 49) and that, "An example of a positive upstream externality is the reduction in greenhouse gas emissions associated with producing aluminium cans using recovered aluminium rather than virgin aluminium" (page 59), yet it does not want government policy to organise waste management so that these benefits accrue to recycling. This is absurd.

It is not surprising the Commission takes issue with the Nolan ITU eco-services metrics because of the potential costs of pollution impact versus the expected costs (page 349). Even a widely accepted pollution impact such as global warming is quantified in terms of "global warming *potential*". Airbags have been fitted as standard equipment to most cars for some time because car purchasers positively assess their value in avoiding a *potential* impact. If drivers only justified the purchase of an airbag-equipped vehicle when they "expected" an impact, it would be much more cost-effective to avoid all travel on the date of the "expected" collision!

The Commission has dismissed the sort of eco-services assessment that the Nolan ITU system offers, but it has no coherent means of assessing the life cycle impacts of waste generation and resource efficiency. The Commission's report therefore provides no coherent basis for deciding when materials should be recycled rather than disposed and doesn't justify why greenhouse gas emissions should be covered by national policies and other attributes (eg embodied water or energy saving) should not. Global warming is a potential impact on a future generation, not today's, and some areas may be better off with more rain and warmer conditions. According to the Commission's form of assessment, people may just as well move out of devastated areas and into the new paradises, like manufacturers can move out of one material as it becomes depleted and expensive and into a new material that is then cost competitive.

The recycling industry delivers environmental services that include the reductions in global warming and materials intensity. These are not currently valued economically in Australia, and ACOR has made a case to the Commission for doing so.

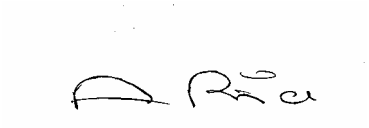
It is widely held that one of the most cost effective, proven ways to reduce waste generation and increase resource efficiency is to recycle. The value of recycling should be determined using a life cycle assessment. ACOR's suggested means of achieving increased recycling is a product stewardship approach, which targets all segments of the value chain. This is the European approach. It may be that using waste policy as a silver bullet solution to impact waste generation and resource efficiency is a somewhat blunt instrument but separating resource policy from waste policy would be removing one of the most effective tools in the current resource efficiency toolkit. The resources that are present in waste are a fact of life, and it is these resources that the state waste policies have focussed on, and the community wants recycled.

Conclusion

The draft report avoids the core of the assignment the Commission was given on waste generation and resource efficiency by focussing on waste disposal whilst ignoring the huge value of used resources. It's a lost opportunity to use environmental economics to "get right the price for the services of nature" and thus right some of the wrongs that an unsustainable, throwaway society causes in waste generation and inefficient resource use.

ACOR calls on the Productivity Commission to complete the project it was assigned and help develop the sort of economics that recognises the community's desire to transition to a recycling society.

Yours faithfully,



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