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7 February 2006 P061010

Waste Generation & Resource Efficiency Inquiry
Productivity Commission
LB2 Collins Street East
MELBOURNE VIC 8003

Attention: Inquiry Chair

Dear Sir/Madam,

AUSTRALIAN GOVERNMENT PRODUCTIVITY COMMISSION – WASTE GENERATION AND RESOURCE EFFICIENCY INQUIRY

Golder Associates is a premier global group of consulting companies specialising in ground engineering and environmental science. By servicing client's needs and building strong client relationships, our people have made Golder Associates one of the trusted sources of professional services in the world. We have worked hard to earn our reputation, built on the quality of our professionals and the success of our clients.

Operating an employee-owned group since its formation in 1960, Golder Associates has created a unique culture with pride in ownership and a commitment to providing technically sound and cost-effective consulting and contracting services. We develop close working relationships with clients so we can understand the specific complex environments in which they operate. It is this understanding that enables us to help clients succeed.

Golder Associates is pleased to provide a submission to the Federal Government's Productivity Commission Inquiry into waste generation and resource efficiency in Australia. Everyday Golder Associates is at work in communities around the world, providing a comprehensive set of professional engineering services integrated to meet the unique challenges of the waste management industry. We have 40 years of experience with the waste industry, successfully completing projects at over 900 waste management facilities in 22 countries and on 6 continents. With over 80 global offices, Golder Associates has become one of the largest employee-owned waste management consultants.

The following information summarizes Golder Associates' experience and position in relation to the economic, environmental and social costs and benefits of waste and waste-related activities (p 10 of Issues Paper).

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1. Economic Issues

Waste in itself represents economic in-efficiency, being the by-product of manufacturing, trading, construction, demolition and consumer activities. Recognising that we live on a planet with finite resources, waste represents sub-optimal use of those resources and our assumption that our current lifestyles are sustainable (which is questionable). Given that the economy represents our purchasing and consumption patterns in relation to our use of these resources, it is largely economic factors which contribute to waste generation in Australia. The solution to waste reduction, therefore, lies in changing the economic systems which produce waste in order that our society runs more efficiently. This end can be achieved through the implementation of three strategies to make change possible:

1. Education
2. Regulation
3. Market incentives

- ***What are the market failures (including externalities) associated with the generation and disposal of waste? (p10 of Issues Paper)***

One key market factor influencing waste disposal quantities, rates and prices in Australia is that the full environmental and social costs of waste generation, both short, medium and long-term, have not been factored into the manufacture of goods, product pricing or waste disposal fees and levies. In addition, waste disposal prices in Australia are low compared to overseas countries (e.g.: in Europe). These low prices result in under-accounting of the true financial, environmental and social cost of each tonne of waste disposed of.

- ***What strategies should be adopted by government and industry to improve economic, environmental and social outcomes in regard to waste and its management? (p10 of Issues paper)***

Government may legislate to ensure that the full economic, social and environmental costs are factored into manufacture, purchase and disposal. This cost factoring could incorporate each type of cost at each stage of the economic cycle. The economic, social and environmental cost of purchasing a product could be paid for at each stage according to the relative impact. A summary and discussion of strategies considered in Europe can be found in a paper by Bartelmus, Bringezu and Moll entitled: *"Dematerialisation, Environmental Accounting and Resource Management – main issues and how they can be translated into public policy initiatives" (European Commission for the Environment, 1999).* The CSIRO has also conducted a triple bottom line analysis of the Australian economy in its paper *"Balancing Act"* (CSIRO and The University of Sydney, 2005).

- ***What case is there for using waste management policies to improve the sustainability of 'resource use'? (p23)***

Such waste management policies, incorporated into legislation, may help to ensure the sustainable use of resources. Cost recovery at each stage of the supply and consumption process may also help to ensure that economic, social and environmental costs are either accounted and paid for (i.e. through appropriate pricing) or are removed in more efficient design, manufacture, use or disposal.

- ***How effective has the mix of policy instruments been in achieving efficient levels of waste? What policies have produced the most efficient outcomes? (p23)***

Current policy initiatives to reduce waste have tended to be unsuccessful where they have set unrealistic targets based on overseas' comparisons or where they are prescriptive in the methods used to achieve waste reduction and resource efficiency. Non-prescriptive policies which specify outcomes (i.e. the requirement to demonstrate that in the manufacture of a particular product, economic, social and environmental costs have been accounted for within a specified scope) may allow each sector of the economy to identify where the gains can truly be made and may allow market innovation to solve many of the waste disposal and resource efficiency problems we face.

- ***What is the appropriate mix of producer levies and post consumer charges (including local government rates and tipping fees)? (p 29)***

Producer levies and post-consumer charges such as local government garbage charges and landfill levies could be implemented at each point where economic, social or environmental costs have been identified. These charges could be levied on a user-pays basis (e.g. a landfill levy on each tonne of waste disposed). The charges could be calculated according to a specified scope, established as part of government guidelines for the factoring and calculation of economic, social and environmental costs.

Along similar lines, International trade agreements could also consider the economic, social and environmental costs of importing goods which may have adverse waste generation effects on a local economy. Any trade penalties imposed may result in overseas market initiatives to reduce or eliminate such effects. At the same time, consideration could also be given to the impact our own exported goods have on the overseas waste management sector. We cannot expect trading partners to consider the waste generation impact of their goods if we are not also willing to 'walk the talk'.

2. Landfill Costs

- ***How large are the external costs of properly constructed and managed landfills and other types of waste disposal in Australia? What types of costs are involved? How do these costs vary according to the type of waste? (p20)***

Golder Associates has conducted many landfill design projects for its Australian and overseas' clients. The costs involved in constructing a landfill in accordance with current environmental guidelines can run into millions of dollars. The reason for such large costs is that for landfills to be economically viable and at some point generate a return, large volumes are needed (i.e. millions of cubic metres). Large volumes require large amounts of materials, construction labour and testing. Design and construction requirements and costs also vary according to the type of waste disposed, with putrescible landfills for the disposal of household waste requiring additional synthetic liners, leachate collection systems and gas extraction equipment. In addition, clients are asked to provide financial assurance against future maintenance of the landfill site once completed.

- ***Do these externalities warrant a government policy response? (p20)***

- ***To what extent has greater regulation of landfill efficiently ameliorated the external costs of waste generation and disposal? Is further or better targeted regulation necessary? What costs have these regulations imposed on landfill operators? (p29)***

As landfill is currently the predominant solid waste disposal method in Australia (due to relative affordability and the availability of suitable sites compared to other technologies),

government policy may need to ensure that environmental design and construction requirements remain realistic given the limitations of Australian manufacturers in being able to supply improved materials and technology. In addition, there is probably a limit to the perceived value the community places on each dollar increase in waste disposal when weighed up against the social and environmental benefits. Again the focus in government policy initiatives could be towards achieving specified environmental outcomes rather than prescriptive regulation which may be more appropriate in an overseas context where there are many more alternative waste disposal systems available than in Australia. It is only where alternative waste disposal methods are established and successfully disposing of waste material (as in Europe) that the future of landfilling as a viable waste disposal technology can be questioned, be more heavily regulated and become more expensive. Given nation wide waste generation trends, landfill will probably always have a place in the waste disposal hierarchy.

Government could facilitate alternative technology investigation through grants, removal of inequalities, planning and public education (e.g. star ratings for energy and water efficiency have been an effective mechanism for influencing consumer behaviour). There may be potential to extend such sustainability rating systems to other areas such as product packaging and other consumables. Governments may also be able to establish targets for key inefficiencies, e.g.: the high predominance of single use e-products containing high concentrations of heavy metals. Governments could also show leadership in their consumption patterns by evaluating purchases from a triple-bottom-line perspective.

3. Summary

What role should the Australian government play in pursuing uniform national approaches when this is the appropriate course of action to take? (p 32)

The Australian government could pursue uniform national guidelines for the establishment and application of economic, social and environmental cost accounting and recovery. These guidelines could also establish the scope of this analysis and the means by which costs can either be avoided, reduced or accounted for.

In regard to the use of landfill as the predominant end of process waste disposal method, regulation needs to be kept realistic in order to keep costs at a level where waste disposal at landfill remains affordable. Other technologies can then be given time to develop and establish to a point where they present a preferable alternative to landfill disposal.

If you wish to discuss these points further, please contact me on 8862 3500.

Yours faithfully

GOLDER ASSOCIATES PTY LTD

Ric Bland
Associate

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