Hyder Consulting Pty Ltd

30 April 2006

Productivity Commission

Locked Bag 2, Collins St East

Melbourne VIC 8003

For the attention of: Mr Philip Weickhart

Dear Commissioner,

Re: Waste Management and Resource Efficiency - Environmental Cost Benefit Assessment

Further to our meeting during March and my email response to issues raised at that time, I attach a summary of key points relating to environmental cost benefit assessment (CBA) and our work in this area, in the hope that it might further assist you with the challenging task of reporting.

The inquiry's emphasis on accountable decision making in waste management inevitably brings into focus cost benefit assessment and its role in decision support. In the attachment I have provided some context (with references) on environmental economic valuation and CBA, both internationally and in Australia for waste policy decision support.

As you know, Hyder Consulting, now incorporating Nolan-ITU, is widely regarded in the industry for our expertise and experience in this area. As such, I thought it may be of use to you to have our view on the method's current limitations and potential for improvement. This view, I believe, is consistent with your own, but often fails to be acknowledged by third parties when study results are communicated.

Finally, during our Melbourne meeting we had hoped to draw the link between the Inquiry's scope, our own submission and the discussion on externalities of landfill. As we didn't cover this at the time, I have included a summary paragraph that addresses resource efficiency and provides a rigorous method for determining the resource optimal position. The approach passes the important methodological tests of reproducibility and transparency.

I hope this will assist you in some way with the work ahead, If I can be of any further assistance please contact me directly on (02) 8907 8213 or by email.

Yours sincerely

Hannes Parti
Principal Consultant Sustainability Services

Summary Information on Cost Benefit Assessment for the Productivity Commission Inquiry into Waste Management & Resource Efficiency

Environmental Cost Benefit Assessment

Environmental Cost Benefit Assessment is an emerging technique that is increasingly used to assess environmental policy options throughout the developed world. The assessment framework generally involves a stepwise progression from quantification of pollutant loads to application of externality valuations (European Commission DGXII, Science, Research and Development JOULE, 1998).

This general approach is applicable to waste management policy (COWI, 2000) and has been used to support policy issues in waste management in Australia (National Packaging Covenant, 2001; Eco-Recycle Victoria, 2003; NSW DEC, 2004, 2005).

Hyder Consulting and Environmental Cost Benefit Assessment

Hyder Consulting, now incorporating Nolan-ITU, has established a sound reputation for its work in environmental cost benefit assessment of waste management options. A rigorous methodology, with simplicity in reporting results, has proved popular with decision makers. By drawing on the internationally standardized method of Life Cycle Assessment as the framework for the CBA, the method has the ability to tap into a vast amount of existing scientific data and information, before simplifying this into environmental performance indicators for decision making. By presenting the assessment results as a single indicator - a ('Eco')dollar value - the results of the assessment are made more meaningful to more people.

As recognised by the Hyder/Nolan-ITU team, environmental economics is still at a developmental stage and it is premature to assume that environmental costs and benefits can be directly and unconditionally compared to financial transaction costs. This is not the intended aim of the method. The method is most useful when the intended application of final results is a comparison of the environmental performance of competing options.

Environmental cost benefit assessment in Australia would benefit: from:

- Consultation during method enhancement to encourage improved understanding of the attributes and limitations of the approach and to increase stakeholder confidence in the assessment results;
- Inclusion of a confidence range to be presented alongside final assessment scores; and
- Regular updating to incorporate developments in externality valuation.

The resource optimal position

Environmental cost benefit assessment, based on Life Cycle Assessment and Environmental Economic Valuation enables options to be assessed and compared and the resource optimal position to be determined.

Classical economic theory tells us that the point of intersection between the marginal net cost curve and marginal benefit curve determines the resource optimal position. In the view of the Hyder consulting team, the resource optimal position is most readily determined using full cost pricing wherein the material throughput of options under study is incorporated into the analysis

using cost benefit assessment. Full Cost Pricing of products, services and most policy decisions is best achieved using the combination of Life Cycle Assessment (Inventory Analysis) and Environmental Economic Valuation.

Both approaches are available for use in decision making in Australia, however, both are at formative stages. There is little doubt that ultimately, informed decision making will require them. Although policy making in Europe differs from Australia, Cost Benefit Assessment using input/output analysis, combined with economic valuation, has emerged as the dominant approach to policy decision evaluation.

References

COWL (2000). A Study on the Economic Valuation of Environmental Externalities from Landfill Disposal and Incineration of Waste, European Commission, DG Environment.

EcoRecycle Victoria. (2003). Sustainability and the Waste Management Hierarchy. Prepared by Lewis. H. and Gertsakis, J.

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NSW DEC & NSW JRG, NSW Department of Environment and Conservation & NSW Jurisdiction Recycling Group. (2004). Getting more from our recycling systems. Assessment of domestic waste and recycling systems. Prepared by Nolan-ITU.

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