

15 August 2006

Philip Weickhard
Presiding Commissioner
Inquiry into Waste Generation and Resource Efficiency
Productivity Commission
Locked Bag 2, Collins Street East
MELBOURNE VIC 8003

By email: waste@pc.gov.au

Dear Philip

Response to your letter dated 14 July 2006

Thank you for your ongoing interest in the models and data that support Hyder Consulting's approach to Cost Benefit Assessment and monetised externality valuation. Before I respond to your questions directly I would like to summarise the following:

The Commission has dismissed the findings of a number of our studies including *The Independent Assessment of Kerbside Recycling in Australia*. This study was undertaken under the auspices of a large Steering Committee comprised of industry and Government experts and stakeholders, supported by their individual teams. The data and calculations were reviewed in detail by the NSW EPA, and the draft report peer reviewed by three experts in the fields of environmental science and economics, two of whom are from overseas.

In your draft report you have based your criticism of this study on aspects such as "scarcity of reliable life cycle inventory data for Australia", "variability of environmental impacts of resource extraction", and the use of proxy values. You have chosen to ignore the sensitivity analyses presented in the report which demonstrate the robustness of the results in accordance with the goal and the stated limitations of the study.

I am pleased to see that you are in agreement with the report's finding that the landfill impacts of *packaging waste* are small.

In relation to determining the externalities of landfilling *mixed waste* I have pointed out to you repeatedly that we have never been commissioned to conduct such a study. Hyder Consulting will not publish disaggregated or other data on landfill externalities until such work has been commissioned in Australia and we are asked to derive a full cost assessment from it.

Your inquiry has, for its own reasons, chosen to disregard reports commissioned by government agencies such as the NSW DEC¹, the work for the NSW Jurisdictional Recycling Group² – also peer reviewed, this time by RMIT - and Ecorecycle Victoria³. You also appear to have chosen to ignore key aspects in the submission we have prepared in response to your queries to Global Renewables which state clearly that the studies you are referencing in relation to landfill externalities are not, and do not claim to be, studies that assess a comprehensive range of substance emissions from landfill. As I pointed out to you at our meeting in Melbourne earlier this

¹ NSW DEC (2005). Assessment of Garden Organics Collection Systems.

² NSW DEC (2004): Assessment of Domestic Waste and Recycling Systems.

³ Grant T. et al (2003): LCA of Waste and Resource Recovery Options

year our estimates do not differ significantly from those made in the said studies. The difference lies in the fact that these studies only consider, or value, two or three parameters such as 'greenhouse gas potential' and 'loss of amenity' whereas our model incorporates many substances and a broader set of impact categories in line with international practice. Obviously, when more substances are considered, the external costs (benefits) increase.

In addition, you promote an approach that ignores (potential) impacts of substances if there is no conclusive evidence of risk to human health. I would like to emphasize again that LCA considers a wider range of impacts than immediate risk to human health alone. Because these studies are comparative - they compare the impact of different options - to do less, would be to potentially bias the findings of a study. Impact categories include loss of species, ecotoxicity, ozone depletion, photochemical oxidation potential, and other impacts that are not directly related to human or localised risks. I refer to point 5 of our last submission ("Show me the dead bodies approach"). We strongly believe that any impacts (also potential impacts) should be included in the analysis in line with international practice unless it can be proven beyond reasonable doubt that no damage occurs. A reversal of this onus of proof is in direct contravention to both the precautionary principle and responsible policy making.

You have made the criticism that: A) We may have used deficient or non representative data; and B) the valuation model (to derive a dollar value) has its deficiencies.

Hyder Consulting, and previously Nolan-ITU, has repeatedly called on Government and other organisations for support to conduct a study into the full cost pricing of landfill in Australia and to develop locally valid monetised values for inventory data⁴. As discussed at some length during our Melbourne meeting, the stark absence of research and scant data in Australia, compared with other OECD countries, is a weak point here. Note that this relates primarily to landfill, and not to recycling and processing where an appreciable amount of work has been undertaken in Australia⁵ and elsewhere. I believe that we have not only used best available international data, but we have also applied commercial-in-confidence data from local operators to validate the data. This alone however, does not constitute a full assessment of landfill in Australia. Until such a study is undertaken, all cost benefit assessment of landfill in Australia will be dependent on third party data and subject to appropriate qualification. Your referencing of our qualified data on this, as discussed by telephone and in writing, remains erroneous and fails to understand the landfill system to which the raw data are applied.

To date, Australian government funds available for research in this area have been minimal. It appears likely that your Inquiry has expended more taxpayer funds trying to criticise and dismiss attempts to derive an externality value for landfill than has ever been spent on establishing one.

The full cost price of landfill is highly relevant to the entire waste management debate. In conflict with the conclusions you make in your faxed comments to us regarding the NSW DEC's view on landfill impacts, their most recent submission to this inquiry states that "the externalities of waste disposal are genuine. Waste does cause air and water pollution, land contamination and loss of land for future uses." This is also the view of the team at Hyder responsible for costing the environmental impact of landfill. The team has over 100 years experience in waste management engineering and science and team members are recognised experts in their respective fields spanning landfill and waste management and Life Cycle Assessment. Our best estimate of the environmental externalities of a landfill in Australia compliant with legislation⁶, in the face of all the

⁴ Examples are our submissions to the Department of Environment and Heritage (March 2006) and to NPC National Working Group (November 2005).

⁵ Predominantly by RMIT.

⁶ and including gas extraction systems with conversion to electricity.

existing data gaps and inadequacies, without further research to substantiate it is between \$100 and \$280 per tonne, with the most significant impacts arising from air and water pollution. Obviously engineering practices and local conditions at the landfill site influence the externality cost. More importantly however, this does not address any upstream externalities associated with waste avoidance and recovery which are of greater significance but dismissed by your draft report.

Hyder Consulting's sustainability team has been, and continues to be, committed to the betterment of waste management practice and science in Australia. We would be prepared to share our data⁷, files and models for the purpose of advancing knowledge in this area. However, the Productivity Commission has already rejected several fundamental points relating to our approach to environmental cost benefit assessment. We therefore have no intention of allowing our files to be scrutinized for any possible weakness and exploited by a team that appears to be intent on dismissing the entire approach. To this end, we believe any research should be undertaken in collaboration with a wider range of industry and scientific experts than is represented by the Productivity Commission.

We welcome further public debate and more comprehensive analysis on this important matter.

Yours sincerely

Hannes Partl
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Environment

⁷ As far as not third party commercial-in-confidence