The Commissioner
Inquiry into Waste Generation and Resource Efficiency
Productivity Commission
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Comments on Draft Report on Waste Management in Australia - Department of Agriculture and Food, Western Australia

This submission from the Department of Agriculture and Food deals with the organic component of the waste stream that represents at least 50% of the municipal, commercial and industrial streams. It can also be argued that this component makes a proportionally greater contribution to the environmental impacts associated with wastes.

Discussion will focus on the Draft reports considerations of Municipal Solid Waste (MSW) treatment as being representative of organic recycling and the recommendations that greater consideration be given to energy recovery and landfill on the basis of economic benefit.

The Productivity Commission report acknowledges the importance of considering social and environmental benefit in determining economically efficient utilisation of wastes, however the application of economic considerations to the waste hierarchy provide questionable support to arguments that favour landfill and energy recovery options over recycling.

The argument that the waste hierarchy should be used as a guidance tool is accepted, however we will argue that because the of the nature of the majority of the organic waste stream, recycling via more efficient lower cost processes will provide better economic outcomes that support the intent of the waste hierarchy. As we indicated in our original submission, we do not consider recycling as the only option for dealing with organic waste .

It can be argued that policy, regulation and communication processes should be used to maximise the separation and efficient handling of different organic materials. A good example being the recent successful evaluation of collecting household food wastes within the greenwaste organic collection process in Adelaide and the increasing emphasis, particularly on the East Coast on three bin household waste collection services that include a bin for organic materials.

The arguments around properly considered economic analysis as the basis for determining the best option for managing organic wastes need to be applied with due consideration to all externalities, including influences from policy settings and regulation.

Market failure in the Recycled Organic (RO) sector reflects difficulties with growing markets for RO products to keep pace with their increasing production. Proponents of renewable energy options in particular will incorporate the element of this market failure into their proposals. In reality, policy settings and regulation, or as is often the case, a lack of them, create imbalances that are significantly responsible for RO product market

failure. A classic example in the agricultural market sector is the continued availability of low cost manures and other organic products such as biosolids that have been traditionally disposed of, with little control, by land application.

This situation also supports the report finding that landfill reduction targets are inappropriate tool for changing waste management practices.

A further consideration is the issue of renewable energy credit processes that provide economic returns from energy recovery from organic wastes that are not available to the recycling of organic wastes.

It is important to acknowledge that before the potential benefits of agricultural use of recycled organic products can be achieved, the associated risks with their use must be addressed. These risks relate to potential pests diseases and weeds, heavy metals and other bio toxic substances as well as inert contaminants that impose a requirement for appropriate processing. Arguably, composting and related processes provide the best approach because they are capable of effectively dealing with all these risks, however as indicated above, the type of technology applied will have a major influence on the economics.

Maximising the recovery of source separated wastes and the development of more conventional, less capital intensive organic processing facilities, will produce high quality low cost recycled organic products. It is often said that the problem with composting is that it is ‘too basic’ and lacks capital investment ‘attractiveness’, something that does not appear to limit the continued proliferation of relatively untried MSW plants.

MSW composting applies engineering solutions to resource recovery from mixed waste streams that contain significant quantities of organic materials. Products from MSW plants also add to the issue of compost market failure because these products have proved to be poorly suited to higher value market sectors. The range of processing technologies that are available may have different cost outcomes but in reality, they all lack the ability to apply the basic principles of the composting process that influence and allow product quality to be optimised for different markets. They are unable to utilise the management options associated with processing source separated streams that enables the:

- compost process to be optimised via feedstock blending
- isolation of contaminants with minimal impact production. Feedstock contamination with the herbicide Chlopyralid closed down MSW composting plants in the United States;
- management of all contaminant by dilution with feedstocks of lower contaminant concentration.

When evaluating the economic efficiencies of waste management options, it is important to account for potential environmental benefits associated with developing the agricultural market for RO products. It is also important to ensure that this use is not restricted by market distortions such as the continued availability of raw manures that do not adequately address environmental and social issues, and the failure to incorporate Extended Producer Responsibility (EPR) principals that would reduce product cost to the end user. The application of EPR principles to the application of RO products to land is justified because it provides a sustainable mechanism for managing organic wastes.

The potential for RO products to improve agricultural productivity also justifies the need for contributions from the user to the overall cost of recycling organics via land application. In the interests of developing the agricultural market for RO products, the user price should be based on the current price of the higher value organic products that are currently available, mainly manures.

Finally, land use planning considerations could usefully be considered in the report. The importance of siting facilities including landfills to manage potential environmental and social impacts along with minimising infrastructure and transport costs, will benefit from inclusion in strategic land use planning processes. As discussed in our original submission, strengthening land use planning policy will also benefit the RO sector of the Waste Management industry. Restricting and better directing the urbanisation of productive agricultural land, will provide market security for the RO industry and minimise the impacts of rising energy costs, particularly in relation to transport.