Some of the points I like to discuss or make include:

1. The waste industry is in enormous transition from lateral materials flow from mine to landfill with a stopover in society to a system where they the objective is to maximise the multiple use of raw materials for various products. The benefits are resource conservation, much reduced energy consumption and less environmental impact from resource extraction and waste disposal. This is desirable but complex and is consistent with sustainability objectives. There is a role for Government to play in this transition.

2. The transition in the domestic waste sector is a great challenge for local government for the following reasons: waste collection service and local landfill operation were a pillar under the raison d'etre for local government (most visible and tangible service provided by councils); Local government generally lack resources and expertise in secondary waste treatment/ resource recovery which require investments of $50 - 100 million; Local government lack commercial expertise in marketing recovered resources. The formation of regional councils has improved the pool of resources. The lack of understanding has led to over reliance on technological solutions and this approach has failed at each example in Australia at a very high cost.

3. There is a need to independently evaluate secondary treatment facilities as the poor economics are disguised by rate payers rather than the market place. The operation of the facilities also interfere with private sector operations through unfair competition.

In order to to successfully reintegrate used raw materials into production process there need to be a price mechanism that makes to attractive for producers to adsorb recycled materials into their production process where possible. There is currently greater incentive to use virgin materials into production processes, due to often lower cost of virgin materials, higher cost of preparation of recycled materials for input into processes, which offset energy and other processing benefits. This supply chain needs to be reviewed and possible use of pricing mechanism, etc. to obtain a more desirable outcome that is consistent with National and International sustainability objectives. A great example is the fact that it is cheaper to obtain roadbase by blowing up the Darling ranges granite deposits then to process concrete from demolition which is as a result subsequently landfilled. By recycling the concrete the Hills would be saved as well as several hunderd thousand M3 of landfill space. These benefits currently do not amount to a more attractive option than granite extraction.

4. There needs to be a appreciation for recycled materials reflected in government policies, promotion of use of recycled input materials for industry, incentives and through purchasing policies. Australia biggest environmental challenge is general land degradation. One of the main causes of poor state of land and fertility is the massive deficiency of organic matter and nutrients. Australia landfills at least an estimated 10 million tonnes of organic waste which contains around 5 million tonnes of organic matter, 200,000 tonnes of nitrogen and 100,000 tonnes of phosphate. The equivalent nitrogen fertiliser value alone is around $320 million. Yet most of this waste is landfilled

at a minimum cost of $50/tonnes or 500 million/year. The recycled organic matter is undervalued possibly due to undervaluation of productive land, irrigation inputs and soil fertility. all replacement fertilisers are imported into Australia.

5. There needs to be a clear appreciation and prioritisation of preferred recycling pathways. currently there is competition for green waste to either burn in renewable energy facilities or process into compost for land application. The high level of subsidisation of renewable energy directs market forces to burning organic matter. The long term economic benefits of land application of organic matter are much likely to bring greater economic return to Australia, though this is an example where this needs to be studied and quantified.

6. There is a strong case to introduce user pay systems into waste management. I conducted a lot of research on this in mid nineties investigating weight based waste collection and charging systems. The current flat rate charging systems through rates promotes waste generation and recycling is entirely relied upon as an altruistic gesture, while an emerging industry is investing in infrastructure to deal with the recyclables. This is high risk and a poor base for long term investment.

There are numerous other issues but these should fill my allocated timeslot.

Kind regards

Harrie

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