Waste Generation and Resource Efficiency
Productivity Commission
Locked bag 2
Collins St East,
MELBOURNE 8003

RE: INQUIRY INTO WASTE GENERATION AND RESOURCE EFFICIENCY

Company Background

Resourceco Pty Ltd is South Australia's largest recycler of Construction and Demolition (C&D) Waste. The business is privately owed and is based at Wingfield. Resourceco has been in operation for 15 years and each year we recycle approximately 800,000 tonnes of waste. We directly employ 70 people and have an annual turnover of $25-$30 million.

Our core business is recycling and resource recovery and we have extensive experience and strong links within the waste and recycling industries. Our operation has a joint venture arrangement with Readymix Holdings (part of the Rinker group) to market a sell a wide range of aggregates and pavement materials made from crushing concrete bricks and rubble.

In 2002 Resourceco joined forces with Adelaide Brighton Cement Limited to process and supply up to 120,000 tonnes of recycled materials for use as a replacement fuel for natural gas in their clinker making process. This agreement over saw the formation of the Alternative Fuel Company a 50% joint venture between Adelaide Brighton Limited and Resourceco, which has the first rights to produce alternative fuel for ABL's kilns as well as develop other opportunities for alternative fuels in power generation.

We believe that our operation is the most extensive recycling operation in Australia with up to 98% of all waste received on site, recycled or reused in one form or another, whether it be as a road base, scrap salvage or as an alternative fuel.

Resourceco is recognised nationally as a leader in the field of resource management and in 2002 was named Telstra and Australian Governments Small business of the year.

Introduction

Waste management in Australia largely reflects the nature of the throw away society in which we live. Marketing strategies have promoted over many years that our lives are incomplete without the latest and greatest and the most up to date gadgets. This drive to improve our lifestyle has developed within our communities a throw away attitude that will be difficult to change without affecting the marketing strategies of the retail community.

We think however that the time is right to address the community's attitude to disposal and waste management practises. The uptake of the reduction of plastic bags and the ready implementation by our community has clearly signalled that there is a readiness to change some of our practises with well thought out and easy to implement strategies.

The major issue that will affect the success and/or any strategy for waste reduction is the **money.** "It's all about the money" whether we like it or not.

Strategies we need to take into account:

Economic;

If we are to explore the costs associated with waste management purely from an economic cost, that is, the cheapest form of disposal, I believe that Landfill will always win hands down. In a country the size of Australia there will always be substantial land and disused quarries that will accommodate landfill.

We need to address in this debate the total economy of waste management including the issue of being a part of a "world village". Why should Australia be able to dispose of its waste in this manner just because we have the land readily available. How can we pressure countries that are poor in their waste management to improve if we remain the status quo just because we have the land.

Recycling brings employment. We understand that recycling will employ 7-10 times more people than landfill to accommodate the same volume of waste (dependant on the waste stream). Our facility employs 70 people - a similar sized landfill would employ 10.

Environmental;

Largely as stated above we are now a part of the world stage which is getting smaller and Australia needs to lead from the front.

I am not aware of any landfill in Australia that is not without its problems and the "Not in My Back Yard" principle is alive and well in most states.

Modern landfills with the appropriate liners, leachate and gas management are relatively harmless to the environment overall and probably are a reasonable end use for waste that has no additional value.

Social

This generation has a responsibility to leave behind as many resources as we can, it is not acceptable to use them just because they are there and are easy to recover. There is a substantial resource currently being put to waste purely because it is cheaper to dispose of the waste and produce virgin products.

There is still a perception in the market that a recycled product must be cheaper or not as good, when in fact often the recycled products are equally as good as a virgin product, but it is human nature to want “brand new “ instead of recycled “second hand.”

Crushing concrete to produce road base is now a very mature market and is commonplace in most states

Where is Solid Waste coming from, and how much is being recycled and disposed

Our view of this can only be related to South Australia as that is where our principle business knowledge lies.

In South Australia we produce in the vicinity of 2.5 million tonnes of waste per annum. This does not include the well established recycling programs that include scrap metal, cardboard and the paper industries.

At the close of the Wingfield Waste Management Centre (WWMC) in December 2004 their facility was receiving approximately 1.4 million tonnes of waste, of which 700,000 tonnes was deemed to be clean fill. The Integrated Waste Management Centre at Wingfield was receiving 200,000 tonnes of waste which is being baled and transported to the Dublin landfill site.

The Pedlar Creek Landfill operated by Cleanaway under licence for the Southern Region Waste Resource Authority at McLaren Vale to the South of the City is receiving 350,000 tonnes and the rest was going through several smaller facilities dotted throughout the state.

There was a substantial change in the direction of the waste streams with the closure of the WWMC facility in 2004. IWS increased by approximately 150,000 tonnes, an additional 70,000 tonnes was diverted to Pedlar Creek. There was also the opening of two additional landfills, one at Uleybury in the Adelaide northern Metropolitan area and one at Inkerman 90km to the North of Adelaide.

There is now a massive over supply of air space in the landfills in Adelaide with those landfills actively trying to attract waste from the recycling industry. Apart from the traditional cardboard and scrap steel operations there are two major recyclers of waste operating in the Adelaide Metropolitan area, Resourceco and Adelaide Resource Recovery.

Resourceco is a SME that is privately owned and has been operational in Adelaide for over 12 years. We currently process in excess of 800,000 tonnes per annum of predominantly C&D waste. This is divided into inert waste such as concrete bricks and rubble (approximately 500,000 tonnes per annum), asphalt (approx 100,000 tonnes per annum). The other 200,000 tonnes is mixed waste predominantly made up of timber, plastics, carpet, cardboard, paper, ferrous and non ferrous metals.

Resourceco have marketing arrangements with Readymix to sell and market a range of recycled pavement and aggregate materials that we produce. We also have a joint venture arrangement with the Adelaide Brighton Cement company to process up to 100,000 tonnes of predominantly wood waste into an alternative fuel for use in their cement kilns as a gas substitute.

With these strategies in place we divert 98% of all waste that is delivered to us away from landfill.

The second recycling site is Adelaide Resource Recovery, this is also a privately owned SME although it has a joint venture with the Adelaide City Council and is situated on the old landfill site that closed on the 31 December 2004. It is difficult for me to fully know the volumes of waste processed as they are my competition but I would guess that they receive approximately 400,000 tonnes of concrete and 120,000 tonnes of mixed waste. I am unaware of the residuals to landfill but would suggest that at least 60% of the mixed waste is a landfill product at this stage.

There is also several smaller sites processing concrete bricks and rubble into quarry rubble for sale into the civil industry, these sites would have a combined throughput of approximately 150,000 tonnes per annum.

The need for more data

At the time of writing this document there was minimal reporting of waste streams in and out of all facilities with a majority of the documentation supplied being in support of the collection of the levies. This was done at the gate of the landfill so much of the data collection is anecdotal based on what companies want to report.

Given the nature of the waste industry this information would be either exaggerated or understated dependant on what suited the company at the time.

I would support a regular auditable data reporting regime to be implemented at all landfill and resource recovery recycling facilities, in fact we are currently discussing this with the EPA. I believe that this information would support my belief that in South Australia at least the volumes of waste recycled are substantially better at recycling than current data would indicate.

Benefits and Costs

As discussed in my introduction:

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>
> *We need to address in this debate the total economy of waste management including the issue of being a part of a "world village". Why should Australia be able to dispose of its waste in this manner just because we have the land readily available.*

How can we expect to pressure countries that are poor in their waste management to improve if we remain the status quo just because we have the land.

Recycling brings employment. I believe that recycling will employ 7-10 times more people than landfill to accommodate the same volume of waste. (dependant on the waste stream)

I would also like to discuss the actual cost to the public of an increase in the costs associated with disposal of household waste. The average house in Adelaide produces approximately 600kg of waste per annum.

Councils currently pay $38-42 including levy per tonne disposal (some $20 below the listed gate fees), this equates to around $25.00 per household less than $0.50c per week. If the cost of disposal were to increase by 100% it would only equate to an increase of $25.00 per annum. Councils have done a very good job of convincing householders that a large proportion of their rates bill is to pay for the collection and disposal of waste, when in fact the average rate bill is close to $1,000 and the waste cost is average $140.00.

We are now a part of the world stage which is getting smaller and Australia needs to lead from the front.

I am not aware of any landfill in Australia that is not without its problems and the “Not in My Back Yard” principle is alive and well in most states.

Modern landfills with the appropriate liners, leachate and gas management are relatively harmless to the environment overall and probably are a reasonable end use for waste that has no additional value.

This generation has a responsibility to leave behind as many resources as we can, it is not acceptable to use them just because they are there and are easy to recover. There is a substantial resource currently being put to waste purely because it is cheaper to produce virgin products.

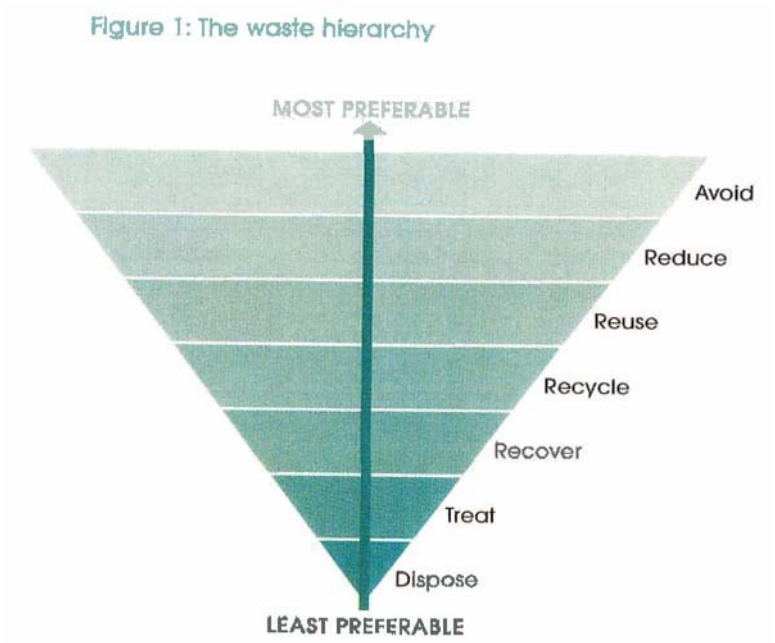
There is still a perception in the market that a recycled product must be cheaper or not as good, when in some cases the reverse is the norm.

There is a huge community benefit to recycling as this is substantially more labour intensive than landfill and the generation of jobs has to be good for the economy as a whole. I understand that CDL alone in Adelaide employs (directly and indirectly) over 900 people. Our business alone employs 70 and is anticipated to rise to well over 120 over the next 3 years.

The discussion regarding disused quarry rehabilitation in Adelaide is an interesting one with a majority of these quarries being in the Adelaide Hills face zone. I do not believe that these quarries will ever be used for landfill as the neighbours would have a major meltdown just at the thought of the proposal. Adding to this the landfills at Inkerman and Dublin have the capacity to absorb all of the waste from across the whole state for the next 100 years.

Resourceco Wingfield Crushing Circuit

The Waste Hierarchy



How as the waste hierarchy influence waste management policy?

We are confident that the SA waste strategy was produced with the waste hierarchy as an extremely important guide. There was however a realistic approach that we as a small state would struggle to influence the avoid strategy on as efficiently as say the Federal level.

For example if we were to demand less packaging for say a Television Set, or demand that the packaging be re-useable and returned to the manufacturer for the next television set I think that we as a state would all be travelling interstate to buy new televisions. If however that was a Federal Government policy for all electrical goods to be sold in this manner we might have more chance of getting that across the line.

What are the advantages and disadvantages of using this approach to waste management?

We are quite confident that given a level of common sense there is little disadvantage of using the waste hierarchy approach and the benefit of getting a uniform approach across each of the states is a distinct advantage.

Under What circumstances, and for which wastes, is it appropriate to proceed sequentially through this hierarchy.

My belief is that the waste hierarchy should at least be the starting point of all waste strategies and a view of where the waste diversion strategy should fit within the hierarchy established, although as we are about to discuss I think that we should consider energy recovery and the subsequent reduction in the use of fossil fuels as higher end use than we possibly now do.

Resource Efficiency

How can Australia improve the economic efficiency with which its resources are used in Waste management and Disposal

A tax imposed on the price of virgin quarried material would make the use of recycled pavement materials more attractive to end users. This method is currently being used overseas and has proved successful in increasing resource recovery and reducing the burden on dwindling natural quarry resources. There are dual benefits of reducing waste going to landfill and decreasing the extraction of naturally occurring materials.

Readymix Quarries and Resourceco working hand in hand to sell Recycled pavement materials.

Arguments for Government intervention

History has shown that landfill levies have been successful in increasing the rate of recycling. However the levy needs to be maximised for recycling to reap the total benefit.

In South Australia the landfill levy is currently at $10.50/t however, we believe that the rate needs to be more in line with say New South Wales at around $20-$30/t. The benefit would be to provide more incentives for all waste managers to process the difficult waste streams which have traditionally been uneconomical to recycle and therefore have/are currently going to landfill.

There are several sites in the Metropolitan area that claim to be resource recovery facilities that are owned by landfill operators but are quite clearly nothing more than transfer stations to landfill. At the moment it is clear through the lack of activity to reduce the waste stream, it is more economical for them to landfill.

The difficulty for Government is that large investment by some Companies in the landfill industry is that their livelihood would be negatively affected by these strategies. As the levies are charged at the gate of the landfill an increase in levy would encourage all resource recovery facilities to reduce the actual volume of waste going to landfill and therefore reduce the actual levy payable.

Government funding and support for the recycling industry needs to be targeted at self sustaining industries and should be an assistance to fast track the establishment of the industry and not underwrite the lack of profits for a period of time. The fear here is that once the Government subsidy dries up then the industry becomes unviable and dies along with the subsidy. This was very prevalent in the early establishment of kerbside recycling in the late eighties with Recycle 2000 in Adelaide.

Market power in Waste Management

We think that the SA Government missed an opportunity with the closure of the Wingfield Waste Management Centre at Wingfield in that we now have two major privately owned landfills that need more waste than is readily available to accommodate their profit requirements. It is our belief that the new landfill should have been owned by Government and operated under licence by industry, the cost to Government could have been recouped by an increase in Levy.

Institutional and Regulatory Barriers

Are local Governments sufficiently aware of best practice approach to waste management that would suit their circumstances? What institutional constraints are preventing the adoption of best practices?

Local Governments have traditionally tried to take charge of their own destiny and in Adelaide have entered into agreements that have the potential to hurt them in the long run, largely due to their lack of understanding of the industry. Examples of this are the NAWMA landfill at Uleybury and the Wastecare facility at Wingfield both of which are struggling with a lack of volume and are possibly incurring substantial losses.

Regional council groups are one excellent way of councils being able to accommodate best practise in waste management as it often gives the volume required to fund best practise with economies of scale.

We would like to make comment at this point that as industry people we often amuse that local government engages consultants who come and ask industry and then submit reports (at substantial cost to government) that require consultants to develop the project and oversee the building and the ongoing maintenance and licensing etc.

I am aware of one council reasonably close to Adelaide within 200km that has engaged a consultant to assist them to understand how to deal with their 7 or 8 tonnes of waste per week. The Consultant has advised them to purchase a block of land next door to their existing landfill that is nearly full and start to construct a new cell. This will give that council surety of waste disposal for many years to come, it will also cost them a substantial amount of money per tonne by the time they have bought the land and established the landfill. It is our opinion that it would cost about $100 per week to bring it back to Adelaide. No money in that for any one but the council!

What regulatory and institutional barriers are impeding the development of markets for recovered resources? What is the case for removing these barriers.

Just this morning I have had a call from one of my customers who is currently removing 250-300 tonnes of recycled products from a local primary school; and replacing it with a virgin quarry product. Why? you ask, because DAIS in South Australia have a written requirement in all of their contracts that recycled products (it even names PM71 And PM81) are not suitable materials to be used on any DAIS projects.

We have not been able to gain any common sense reasoning from any DAIS representative as to why this is in place in their contracts but they continue to do it, evidently the product may be ingested by the children and that could cause them some harm. This is not a good message from the government to be sending to the Civil Industry every time DAIS puts out a tender.

When does a waste stop being a waste and start to become a product? This is one of those hard to answer questions and the EPA has an answer “when some form of mechanical action or a change in its form or process has occurred” or something like that.

Our belief is that there should be some mention of destination for example; If a waste product is placed in a waste container to go to landfill then that product is a waste. If a waste is placed into a container to go to a recycle centre that material is a feed stock for the recycle centre. Once the recycle centre has processed the material and removed the resources the residual product that is transported to landfill is a waste, the marketable resources are a product. It sounds pedantic but it is important that we understand when a waste stops being a waste and starts to be a product, as this affects the process down the line. We have some sites in Adelaide that require waste management licenses because they receive “waste” that is clearly not a waste for example cardboard bailing facilities.

Unsustainability of current Practises

What case is there for using waste management policies to improve the sustainability of resource use?

As a community we have to leave behind for future generations a world that is at least as good if not better than when we became the caretakers for our generation. Just because we have easy access to materials such as quarry products these should not be used at the expense of recycled materials.

It is important that Government policies reflect the need to protect finite resources such as timber, rock and ferrous and non ferrous metals etc by facilitating an environment that supports reuse of these materials in place of virgin product.

Policy options

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

Several states now have landfill levies that are assisting with waste diversion from landfill as the cost is somewhat artificially increased. While there is a strong argument for these to be removed or at least kept to a minimum it is our belief that the relevant state governments have a responsibility to penalise a business and community that is being irresponsible with its waste stream.

Clearly in the states where the levy is highest has come the greatest landfill diversion in SA we are currently paying $10.50 per tonne. We would like to see an increase in the levy across all states to encourage resource recovery and in turn assist in the development of end markets.

For industry to be able to plan ahead for the increase in waste diversion it is our belief that 5 year levy plans should be in place in each state, similar to the current strategies in NSW and Victoria.

It is also interesting to note that in some countries in Europe including the UK have introduced taxes on virgin products to encourage the uptake of recycled products. In South Australia there are several quarries extremely close to the metropolitan area, these quarries are more than capable of providing the area with as much product as it needs and in fact we probably have an oversupply just in the quarries alone.

Over the last 10 years the resource recovery industry has started to develop and can now process and supply over 800,000 tonnes of recycled pavement materials into the market each year. In an area where there was already a very mature supply of products this has become a real problem in that most recycle yards have a ready supply of product and a very small market in which to sell it.

We believe that an aggregate tax would go a long way towards assisting with the sale of these products, once again penalising the user of virgin materials when there are clear alternatives with recycled product. We have listed below some options as to how this might work

1. Place restrictions on quarries or at least put selling requirements on each site, for example 20% of all material sold by the quarry must be recycled product, similar to the electricity requirement of 2% green energy.

2. Charge an aggregate tax and then rebate the quarry a percentage of the tax for each tonne of recycled product sold, i.e.; $2 per tonne aggregate tax rebate $1.20 per tonne for each tonne of recycled product sold.

Key performance indicators and target setting

How are targets being set? What consideration is given to the social, environmental and economic costs of achieving these targets? How should targets be set to optimise social, environmental and economic outcomes.

How should Australia's performance in waste management relative to other countries be measured? What role is there for key performance indicators in making such comparisons and which key performance indicators are the most useful for public policy purposes?

We think that setting KPI's relative to each State and comparing Australia to OECD countries is slightly irrelevant, we should in fact treat our KPI's a little like the game of golf its not the score that counts but are we getting better than we were last game, are we improving?

We believe that each state needs to set its target based on the raw tonnage data to landfill per head at a council district level and then at a state level. If we are successful in reducing waste to landfill at these levels then the comparisons at a world stage level will to some degree take care of itself.

For example over the last 10 years local government has introduced a 3 bin system usually a 140 litre general waste bin emptied weekly, a fortnightly collection of a 240 litre mobile garbage bin for green waste and a 240 litre mixed recycle bin that are usually emptied on alternate weeks. This has seen a vast drop in waste to landfill to the degree that most households now produce on average 550kg per waste per annum.

This is the current benchmark and the challenge now is can we do better? Our view is we should benchmark each of the councils against each other first and then as a State benchmark against each State.

There is a huge discussion regarding the cost of some of these programs at least for the householder. Local Government has done an extremely smart job of convincing householders and the public in general that waste management for households is extremely expensive. We would like to explore that for a moment.

The transport cost of the waste collection is quite static and in fact the introduction over the last 10 years of robotic arm collection vehicles and the move away from runners has resulted in a huge reduction in labour costs that in most council districts the costs of collection has reduced. Thirteen years ago when I first came into the waste industry the average service was between $1.02 and $1.07 per service per week, the current cost of a service is on average $0.60c per week.

As discussed earlier the cost of disposal in Adelaide is less than $25.00 per rateable property, you can see that if the cost of landfill were to double the cost to ratepayers would be relatively insignificant compared to the social and economic benefits of the additional employment that would be created with the expansion of resource recovery and recycling. We believe that around 10 jobs are created in resource recovery for every job in a landfill.

Recycling

How well have these policies worked in generating economically efficient levels of recycling? What policies or mix of policies are likely to work in this regard?

National Packaging Covenants – This is not an area of our expertise so we will refrain from comment.

Education programs for consumers and businesses – We believe that while these have been quite valuable and have got the community and industries attention they are too fragmented and some uniform information needs to be presented. For example in Adelaide there are probably various different education programs for each of the council collection systems that are developed by the council or its contractor. How hard would it be to set up a uniform program for both collection and education, after all there are less than 1 million people living in the whole metropolitan area.

Government provision of recycling facilities – There are no State or Local Government provided recycling facilities in Adelaide although some sites are located on council owned land, but are privately operated. Unfortunately these are quite inefficiently run and in most cases are nothing more than half way houses to landfill. For example the Wastecare facility at Wingfield calls itself a resource recovery facility, with its residuals going to landfill I would like to bet that their diversion rate is less than 1%.

Providing explicit subsidies to private collectors and recyclers – We have a definite issue with these policies if they are underpinning the program. Governments lock themselves into these programs and while the Government props them up they operate, once funding is removed the program dies. It is our belief that any Government funding should be based on fast tracking the project not underpinning it. The business plan should stand alone with out government funding.

Government preference for products with some recycled content – Government lead from the front and have a contingency for use of recycled products, for example in the construction of the Port River Expressway the Government built in a 10% allowance for the use of recycled pavement materials in the road, more than half a million tonnes of material was supplied into that project.

Assistance in developing markets for recycled products – Transport SA has been extremely supportive of recycled products and has worked extremely close with industry to develop products specifications for pavement materials.

In February 2000 they released the PM2000 specification for pavement materials that included recycled materials as equal to virgin quarry products in a class 1, 2, or 3 products. In the past contractors wishing to use recycled products in a project would prepare conforming bids using virgin product and non conforming bids using recycled products and then try and negotiate the use of the non conforming bid. With the introduction of the PM 2000 specification our product could now be specified for use as a conforming tender.

This work with Transport SA is continuing and we see it as vital to continue to develop the industries product range.

Landfill levies which make recycling more financially attractive – We would like to see an increase in the current levy as landfill is still relatively inexpensive in Adelaide. A 5 year strategy to increase the levy and then a plan going forward would make it easier for industry to plan moving forward.

The current strategy at the moment is that we have to wait until the end of each financial year to see how much the Government is going to increase the levy if at all and does not allow for the long lead times that some of the recycling programs require.

The alternative fuel project as taken nearly 4 years to develop at a cost of over $4M and a total investment of more than $15m.

Waste Management plans including targets for recycling rates – We think that most of the community is aware of the State Waste Strategy, at least within the waste industry. Zero Waste and WMAA have held several events that have promoted the plans and projected reduction targets.

While industry is very aware of the direction that the State Government would like to head, it is a fact of industry life that businesses exist to make a profit and a majority of waste transporters will drive past a resource recovery facility to a landfill if that is the cheapest option.

A majority of waste transporters in Australia own landfills which are reasonably economical to operate with very good margins. Recycling operations are in the main operated by SME's as they are not so driven by the margins that the major waste industry needs to achieve. If we are serious about waste diversion the resource recovery industry needs to be underpinned by either legislation or levies, we support a combination of the above.

How useful is full lifecycle analysis in determining the environmental and economic costs and benefits of recycling various products?

We speak mainly of the business that we are in namely construction and demolition waste recycling. We believe that it is extremely important to understand that a large portion of this waste stream has a life once it is removed from its existing use. As discussed concrete, bricks and rubble make extremely strong road base and it is quite exciting to think that we can drive on roads constructed today that are made from buildings and concrete that are passed their use by date.

This will also prolong the existing quarries extending their life for use by future generations. As already discussed it is not good enough for us as a community to utilise these materials because they are easily accessible whilst burying existing materials.

Are there particular products or locations for which disposal rather than recycling might be an efficient option?

We are not aware of any, and in fact if you can transport waste from Kangaroo Island to the mainland which they do, you can transport it from anywhere in South Australia.

How as government procurement policy affected recycling levels? How important is the demonstration effect of government actions?

As discussed above the Government has in place strategies to utilise recycled products and to develop specifications for the materials. So on one hand they are very good but as in all cases sometimes one department does not communicate with another. In SA we have Transport SA sending one message with its extremely important support and product development and on the other we have DAIS sending a conflicting message by putting tenders in the market place that strictly prohibit the use of recycled products.

Energy recovery from waste

What are the economic, environmental and social benefits and costs of recovering energy from waste?

What is hindering the greater use of recovering energy from waste in Australia?

Are there particular products or locations for which recovering energy from waste would be the most efficient approach to waste management?

Economic, environmental and social benefits and costs;

If the waste can be collected and processed cost effectively there will be cost benefits in displacement of fossil fuels, this also has the social benefit of prolonging the life of a diminishing non-renewable resource. Against this cost benefit is the substantial operating and capital cost required to establish collection and processing facilities to produce a product from waste which can be effectively used in, for instance, a combustion process.

Typically energy-containing waste is co-mingled with inorganic contaminants or undesirable combustible material necessitating significant processing.

Environmental benefits will result if the waste has a biomass component as the resultant carbon dioxide emission can be viewed as part of the natural carbon cycle, unlike fossil fuels. Generally biomass materials have a lower calorific value than traditional fossil fuels and this will give lower nitrous oxide formation in certain high-temperature combustion processes.

Alternative Fuel Processing facility Wilkins Road Gilman, This is a joint venture of Resourceco and Adelaide Brighton Limited.

Diversion of co-mingled combustible and inorganic material from landfill with processing to separate the energy-containing fraction effectively ensures the destruction of a range of hazardous organic chemicals from landfills. An appropriate combustion process will ensure the destruction of even the most intractable organic compounds.

In addition the inorganic fraction recovered can be used in useful applications such as road base reducing the need for quarrying virgin raw materials and effectively containing various heavy metals. The inorganic contaminants can actually be a useful additive in certain processes such as cement manufacture where the ash combines beneficially with other raw materials in the final product.

What is hindering the greater use of E from W;

Economic hurdles must be overcome and long-term surety must be evident before companies will make the large investments needed for E from W projects. Landfill prices are still very much lower than Europe making it still cheaper to dispose of to landfill.

Some State Governments have tried to facilitate diversion from landfill by imposing landfill levies, this is a positive step but generally the amount involved does not provide enough of a buffer to warrant E from W projects. Often the E from W technologies are relatively new so projects are higher risk which inevitably means higher returns are needed to warrant the extra risk. Little opportunity exists for grant money to assist with projects and what money is available has been seen to be a small portion of the total project cost.

Alternative fuel ready from transport to the Adelaide Brighton Cement company at Birkenhead

There is no effective carbon trading system in Australia which might give a further financial incentive for new E from W projects. Even the MRET scheme only applies to power generation not thermal processes and for any E from W project to have to add a generator to its energy recovery project is generally an unacceptable extra capital expense.

Government bodies are not as experienced with E from W technology as their European counterparts so regulatory hurdles can often be so onerous that projects are effectively doomed to failure before even starting. SA and Vic are exceptions to this comment and their good support highlights the fragmented nature of the Australian system and the lack of an effective national approval system.

Pricing measures

What is the purpose of landfill levies? How are they set?

What impacts do landfill levies have on the illegal dumping of waste?

Is it appropriate to hypothecate levies to other waste management activities? Does this provide the correct level of funding for such activities?

Landfill levies are established to promote the establishment of recycling activities by increasing the cost of disposal to landfill. It is my belief that they are set by State Government usually in consultation with Local Governments. In South Australia the levy is $10.50 per tonne with $5 per tonne hypothecated to Zero Waste SA.

We have been in this industry for more than 13 years and even when the landfill disposal was a total of $9 per tonne there was illegal dumping. It is no secret that with the increase in disposal price that the illegal disposal may have increased but there are some people who do not want to pay regardless of the price.

We believe that it is important to hypothecate levies to waste management activities and in fact would like to see the entire levy except the Zero Waste Component hypothecated to EPA for better policing of our industry.

This would tidy up things like illegal and inappropriate dumping as well as allow greater communication between industry and EPA by having more people on the ground.

We have already discussed the funding of waste activities in regards to government support but to just confirm our position funding should only be to assist the fast tracking of a solid business proposal not underpin it as when the funding dries up often so does the project.

Regulation of landfill and other waste management facilities

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?

What constraints are urban planning requirements placing on efficient disposal and recycling of waste?

How can or should waste disposal and recycling facilities be treated in an urban planning context?

Urban planning and encroachment into buffer Zones is a major issue in resource recovery as viability is often based on access to both the disposal markets and the end user market.

For example the demolition industry will always try and dispose of its waste concrete at the closest facility as travel is often more than the disposal cost. Once the materials have been crushed and prepared the cost of transport to the civil works project can be as much as the sale price of the product and is always based on a cost per tonne per kilometre to deliver.

Recycling facilities need to be as close as possible to the action and yet often have requirements for fairly substantial and expensive buffer zones. Often as the venture develops and other business locate along side of the venture it is only a matter of time before the venture is pushed out of the area as was the case with the Jeffries group in Adelaide.

Jefferies were one of the first businesses in the Wingfield area 20 years ago but with urban encroachment they have had to move out of the area at a huge cost with little or no support from anyone (they are now located at Buckland Park around 30 km to the North of Adelaide).

Governments need to understand that resource recovery invest millions of dollars establishing their venture and need to ensure that buffer zones are maintained. One approach has been to assist the industry to set up precincts for resource recovery and recycling that have the appropriate buffers that councils cannot allow encroachment into.

The difficulty with this concept is having several business attracting the same waste operating in one common area encourages only price wars and business will be reticent to move into the area.

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