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Productivity Commission
Locked Bag 2 Collins St East
MELBOURNE VIC 8003

Dear Commissioner Weickhardt

RE: COMMENTS ON WASTE MANAGEMENT, DRAFT REPORT

We are writing in response to the Productivity Commission's Draft Report on Waste Generation and Resource Efficiency in Australia released in May 2006. In this letter we introduce ourselves, comment upon the report and provide some suggestions for directions that we would like to see for waste management in Australia.

ABOUT THE EMRC

The Eastern Metropolitan Regional Council ("EMRC") is a regional local government in Perth's Eastern Region. We provide a range of services to our six member Councils, which are Bayswater, Bassendean, Belmont, Kalamunda, Mundaring and Swan. The longest running of these services is waste management which has been provided since our inception in 1983. We consider ourselves to be a Centre of Excellence for waste management with a focus on providing cost effective, feasible solutions for member Councils and other customers.

The EMRC currently operates the Red Hill Waste Management Facility on behalf of the member Councils. The Facility includes one of Perth's largest landfills with dedicated cells for putrescible waste and contaminated soil, a green waste processing facility and a transfer station where recyclables are aggregated and sent on to material processors. The Facility is run as a commercial operation, and competes strongly in the market for commercial waste. The landfill is run as a Best Practice facility, with composite lined cells, leachate collection, gas collection for power generation and progressive site rehabilitation. The Facility is situated about 30 km from the Perth CBD and receives no complaints or non-compliance notices from the Department of Environment – the licensing authority. The EMRC has purchased land on the "open market" to ensure that the buffer areas cannot be developed and has the appropriate zoning and licences to operate for several decades, if necessary, at the current waste receival rates.

As part of the ongoing waste management solutions provided, we are continually exploring and developing resource recovery activities. These resource recovery activities are required to be commercially viable, often targeted at removing low density wastes from our landfill. Since income is earned on a weight basis but costs are incurred on a volume basis, low density wastes are less profitable to landfill and the airspace saved can be 'reserved' for higher density waste. With this in mind, we are currently developing a facility to process timber and mattress waste on a parcel of land we own at Hazelmere near the Perth Airport. A number of other opportunities are also in their early stages of development for the creation of marketable products from waste products.

The EMRC is also investigating non-landfill alternatives to waste management. This is being undertaken by a thorough research and consultation process in which the ratepayers are able to provide input at all points, thus ensuring that any system developed meets their needs. We are not rushing into this process.

COMMENTS ON THE DRAFT REPORT

Our broad comment on the report is to congratulate the Productivity Commission on the depth and breadth of its review. The broad direction of the waste management sector, complete with its strengths and failings, has been well characterised in the report. These comments seek to add to this characterisation by describing particular nuances of the sector, offering our opinion where appropriate.

The purpose of waste policy

Fundamental to conceiving of how to best manage waste and/or develop waste policy is a clear understanding of the objectives of that policy. The draft report works from an underlying basis that the overarching objective is to cost effectively minimise social and environmental impacts (maximise net social benefits). Given that waste policy is generally within environmental portfolios, this is supported by current practice.

An alternative or additional objective for waste policy might be the development of resilience and a degree of national self-reliance in resource consumption. This is quite distinct from resource conservation. The draft report demonstrates resource conservation is not a realistic goal for waste management policy. However, developing further resilience is important where global demand increases the possibility of "spiking" resource prices. Building in additional resilience enables such spikes to be dampened while extra capacity or materials substitution takes place. Since wastes are materials generally close to their end market, it makes sense to target them for reincorporation into the economy where appropriate. Clearly, as indicated in the draft report, the criteria for reincorporation need to be refined.

Environmental regulators are ill-equipped to consider waste in this new context and, just as waste policy was moved from health to environmental regulators as the emphasis shifted from public health to environmental quality, so too a shift in waste policy from environmental quality to resource efficiency would suggest that there should be an institutional shift to industry agencies more attuned to economic development. This is a step that has been, or is being, taken in Japan. Environmental agencies should continue to play a role, but the question should be framed in terms of guiding investment to encourage resource efficiency within the broader industrial framework. For effective decision making, this would need to rest on the base assumption that the environmental and health aspects are dealt with. Removing waste policy-making from environmental regulators would also free up resources for them to properly enforce existing regulations.

The waste hierarchy

The draft report reflects on the use of the waste hierarchy by government, and makes the observation that the waste hierarchy should not be the sole determinant for the design of policy. Whilst the influence of the waste hierarchy in practice may be overstated in the draft report, it is useful to remind regulators of the intent of the hierarchy. The paper "Rethinking the Waste Hierarchy" produced by the Environmental Assessment Institute of Copenhagen, Denmark should be required reading for all involved in the development of waste policy.

The hierarchy is intended to represent, in shorthand, a broad consensus regarding preferred waste management outcomes. It is intended to be, and generally is, used as a guide for decision making when all other things are equal. As a guide, it suggests that the social and environmental benefits will generally be higher as one moves higher up the waste hierarchy. The counterbalance will generally be cost.

This general conceptual framework obviously falls apart for specific waste streams in specific circumstances. This reflects the fact that the hierarchy is contextual, and indeed this is the value of the hierarchy. When prepared for specific wastes or waste types, it can summarise the preferences agreed between the community, the regulators and the regulated. This simplifies future negotiations for the management of the relevant wastes or waste types. As such, the waste hierarchy is a useful and powerful tool when used appropriately, and this is where there needs to be a devolution into a series of waste hierarchies, each applicable for a particular waste type and each based on a robust analytical framework.

Similarly, the use of targets to divert waste from landfill should be understood as a measure and not an objective. The draft report correctly identifies that the confusion of the measure (reduced waste to landfill) has been confused with the objective (reduced waste generation, or perhaps reduced environmental impacts from waste). Again, most in the waste industry understand that a target of "zero waste to landfill" is aspirational only, however it is necessary to remind regulators of this from time to time. Taking this position literally would be tremendously counterproductive, and would consume all of a country's economic resources.

Direct versus diffuse incorporation of externalities

The draft report identifies that upstream externalities are not well addressed through waste management policy, citing the example of industrial pollution from processing virgin materials (p.90). This would seem to be a relatively straightforward observation, as the diffusion of costs imposed by waste management upstream to materials generation would appear unlikely. That is, making waste disposal more expensive is unlikely to have a substantial impact on mining or manufacturing practices. The more likely outcome is that these costs will act as a dead weight on the economy. The optimal outcome described in the draft report is to have regulation address the externalities directly.

Whilst having regulation address the externalities is a transparent position to adopt in the development of policy, it is clearly not as simple as that. Attempting to control impacts on the environment from a range of upstream activities may be substantially more difficult than reducing waste, and thus the demand for the product causing the impacts. The shortcomings in the regulation of landfills has been noted above – extrapolating this across the entire spectrum of resource extraction and manufacturing would suggest significant and ingrained shortcomings. This is noted in the inability for regulators to deal with any more than a limited number of the potential and actual polluters.

Furthermore, controlling impacts upstream suggests that they are all able to be known. Whilst Environmental Impact Assessment partially resolves this problem, it is limited to only answering the questions that science is geared to answer. For instance, it is rare for studies of ecosystem wide effects to be taken into account – this may in fact be a critical distinction in the Australian context where biodiversity is rich and highly locality specific. Similarly, the incorporation of all upstream impacts is likely to be resisted where product is generated for export, since the increased costs risk compromising the competitiveness of Australian products on global markets if other international producers are not required by their governments to incorporate the costs of upstream impacts.

Notwithstanding difficulties with this fundamental premise for the development of policy, it is useful as a starting point. Unfortunately, this clarity of thought is somewhat undermined later in the draft report where Extended Producer Responsibility (EPR) programmes which target specific products are discounted in favour of aggregated management. The potential for EPR or other product specific programmes to provide a direct incorporation of product externalities is a significant element in their favour The alternative, favoured in the draft report, is to leave these externalities to be incorporated via recycling or waste disposal fees. This is an implausible outcome, and the draft report should give more attention to its internal consistency. It seems clear that particular products which pose specific problems in the waste stream should be targeted for EPR programmes. These problems will change as the management of the waste stream shifts for example the economic viability of composting will be closely linked to the assurance that the compost produced is free of contaminants such as heavy metals and glass.

Another specific example is worthy of note. The draft report (page 145) cites the EPHC, indicating that the wholesale cost of a plastic bag is one cent each. The cost of bags are absorbed into the business overheads. It would not seem impossible or unreasonable for this charge, appropriately marked up, to be passed through to the consumer. This is a case of a clear market signal, readily identifiably by consumers, which requires no moral suasion or other tools to implement. This was always one option for the management of plastic bags, but it was discounted in favour of the foreshadowed ban. Whilst the draft report indicates that the foreshadowed ban is not supported, it does not pass comment on the potential to require retailers to charge for plastic bags as an intermediate step between doing nothing and imposing a tax on plastic bags.

The waste management industry

The general description of the industry, set out in the draft report, outlining four key areas of activity is broadly accurate however, the collection, sorting and recycling of recyclables are often conducted by a single organisation, and the overall cost of recycling particular items is unknown because of cross subsidies.

It is useful to note the structure of the market in each of these activities, as some are more concentrated than others. Broadly, the collection and transport of waste is concentrated in private sector firms. This is a trend that is expected to continue. Such a business lends itself to firms specialising in logistics, and often operates on thin margins.

The sorting of waste and recyclables tends to be conducted at a series of facilities. Where Municipal Solid Waste (MSW) recyclables are processed, then the sorting will be conducted at Materials Recovery Facilities (MRFs). The trend for MRFs is difficult to forecast, as some centres are trending towards a larger number of smaller MRFs producing a coarsely sorted product for further processing, whereas others are trending to large MRFs producing a finished product that can go straight to remanufacturers.

Due to increasing product specifications, and the associated capital costs required to achieve these specifications, we believe that the former trend is more likely, notwithstanding there are additional layers of cost being incurred each time material is handled. This will see a number of small MRFs, potentially local government operated, feeding coarse sorted recyclables to large, privately operated processors, who produce several grades of materials directly into remanufacturing markets. This would seem to be a more effective arrangement in terms of transport and capital efficiency.

The processing of materials recovered from the waste stream is one of the areas of significant proliferation, with substantial ingenuity being demonstrated in the industry. Almost entirely within the private sector, and generally conducted by small, specialised firms, this sector is poorly understood and regulated by waste regulators.

The final disposal of waste, overwhelmingly to landfill, demonstrates variability across Australia for reasons that can only be put down to the different histories of each of the States and Territories. For instance, Melbourne is almost entirely serviced by private landfills, Sydney had a State government monopoly on MSW landfill, until the recent entrance of Collex into the market, and MSW landfills in Perth are overwhelmingly local government operated. Regional and rural landfills around Australia are typically local government operated, whereas inert landfills nationwide are typically privately owned and operated.

This variability is likely to stay, and each jurisdiction is unlikely to substantially change its mix of State government, local government or private sector landfills. However, consolidation is underway in the industry, with each city being serviced by fewer (less than five) landfills, each typically operated by a different firm. The diversity of operators is the key driver to keeping competition robust and it is the degree of competition that ultimately sets the gate fee rather than any regulator driven protection standards. Waste disposal is highly price sensitive. Given identical travel distances, waste generators will invariably go to the cheapest facility rather than pay more for a facility that may be perceived as being a better run landfill.

Trends in waste generation and disposal

The draft report indicates that waste generation is growing, with waste disposals to landfill reducing in the two jurisdictions reviewed (Victoria and the ACT). As is noted in the report, this data is uncertain at best for a number of reasons cited in the report. Indeed, the only data that can be established with any degree of accuracy is the data on waste disposed of to landfill where the landfill has a weighbridge. Data on waste recycled is patchy, and thus aggregated data on the total quantity of waste generated is poor.

Added to these data collection inconsistencies is a systemic flaw where jurisdictions increasingly classify materials as wastes, particularly where they are already being recycled. This serves the immediate purpose of inflating the percentages of waste recycled, but makes it difficult to compare jurisdictions. It also tends to shift the management of by-products into the waste management framework, which increases the level of regulation and changes the nature of regulation as it shifts from industrial or agricultural departments into environmental departments. This is discussed below.

Regulatory culture

The regulation of waste management is generally undertaken by environmental regulators. The regulatory culture of environmental regulators is typically cautious, secretive and adversarial. The attitude toward entrepreneurial activities generally seems to be, at best, ambivalent, and the ideology expressed in their activities is that the environment is best protected through centralised control and that environmental regulators know best.

In the context of waste management, this creates absurd consequences of central planning. One is the development of jurisdictional "waste infrastructure plans" where regulators have no knowledge of the market, nor the processes involved in collection, transportation or "disposal" in a sector where the market is more than capable of identifying and addressing needs. These "waste infrastructure plans" are a relatively harmless waste of money (though coming to millions of dollars per year nationally) leading to bookshelves neatly stacked with consultants' reports, lots of discussion among regulators about how to "achieve outcomes", and a disconnect between the thinking of regulators and the waste management industry that is required to deal with waste day in and day out.

A more insidious consequence of the regulatory culture is the stifling of innovation through the regulator's desire to hold control of waste. Examples of this include:

- Requirements to test recycled product far in excess of what would be required of virgin product, even though the virgin product is just as likely to be contaminated. This is exemplified and particularly damaging in markets for recycled aggregate and soil, where the margins are thin and excessive testing can make a business unviable;
- Regulations on the use of recycled product that exceed those imposed for virgin product. The use of waste products as fertiliser is heavily controlled, with various systems required to demonstrate the requirements of the land, monitoring of soil health and so on. The use of manufactured fertilisers do not have any of the same type of regulations.
- A prohibition on using MSW generated compost as a fertiliser unless extensive regulatory requirements are fulfilled. These requirements stem from concerns regarding lead in the compost from batteries. Compost would replace superphosphate which is high in cadmium; the risks of cadmium contamination (regulated through agriculture departments) is controlled through a system of self-regulation.
- Heavy restrictions on controlling the flow of materials entering the markets. Regulators usually make it difficult to stockpile materials, processed or otherwise, requiring generators to sell their product as it generated irrespective of the state of the markets.
- More onerous approvals processes once waste materials are an input into manufacturing processes.

All of these have origins in a small number of rogue operators which, typically, have become established to service waste generators seeking to avoid high waste disposal costs. The "solution" has had the effect of stifling genuine innovation in the field and of making the market extraordinarily difficult to work in for anything other than landfill disposal.

Furthermore, the increasingly centralised role of poorly informed regulators in the market has created a system particularly prone to "regulatory capture". In such a system, large and persuasive organisations are able to convince regulators to establish regulation which serves those organisations. An example is the escalation of landfill levies to the point at which particular technologies become viable. Since landfill levies are controlled by environmental regulators, the usual balances are weakened. The impacts of landfill levies is discussed further below.

Landfill levies

Landfill levies have been demonstrated to have no impact on the total quantity of waste generated, and to be only weakly linked with recycling rates (exemplified by the differences between Victorian and NSW recycling rates). What they do achieve, however, is a marked increase in the cost of waste management.

Based on data in the draft report, landfill levies in NSW, Victoria, WA and SA cost waste generators up to $66m (perhaps slightly less depending upon the split between metropolitan and regional waste generation). Furthermore, NSW, Victoria and WA is looking to increase levies even further, and so it is not unlikely that levies alone will cost the Australian economy in excess of $100m in the near future.

Since the only stakeholder with any active engagement in waste regulation is the waste industry, and landfill levies are passed straight through the industry to the final consumer, there is generally little criticism of landfill levy increases. They are, in effect, a productivity tax. At $50,000 for an employee, the landfill levies in NSW are equivalent to the loss to the economy of one employee per 2,200 tonnes of waste generated per year. This is not a substantial quantity of waste for the manufacturing sector but a significant impact on the NSW economy.

Where levies go towards subsidising recycling, they in effect replace skilled jobs with low skilled labour in the recycling industry. Where they do not subsidise recycling but instead are hypothecated back into waste related work (and levies appear to now comprise a core component of funding for most environmental regulation bureaucracies), levies convert wealth into interminable consultancies and bloated bureaucracies. In a country where wealth is not infinite, prioritisation of investment is critical. Spending up to $100m on a non-existent or low level problem is not a rational decision when other environmental priorities such as water supply, climate change and salinity exist (not to mention the suite of priorities outside the environmental arena such as education, health and policing).

Private costs and benefits of waste management

The draft report refers to the collection cost differential between a single bin system and a dual bin system, indicating that the cost will be somewhere between $51 and $82 per year, and is assumed to be $59 per year. A single bin system is run by the City of Stirling in Western Australia, and therefore the assumption can be tested by seeking current data from the City.

The draft report also refers to the costs to recycle rather than landfill, indicating that it is more expensive to recycle than to landfill. As indicated above, low density waste is less profitable to landfill than high density waste, and at a certain gate fee there will be a waste density at which the landfill does not cover costs. This, in turn, drives decisions regarding recycling as set out below.

Using the figures provided by the National Landfill Division of the WMAA in their submission (sub. 28), the cost for a best practice landfill is $19/m^3 (converted to $25/tonne based on a waste density of 0.75 t/m^3). This figure is broadly consistent with the costings we have developed for the landfill at the EMRC's Red Hill Waste Management Facility.

Based on the gate fees in the draft report, a Best Practice landfill in Perth would not cover costs where it receives waste less dense than 0.69 t/m^3, Melbourne at 0.65 t/m^3 and Sydney at 0.33 t/m^3. Typical densities of landfilled materials are tabulated below, along with the profit/loss per tonne of each material type in the three cities nominated above.

Material	**Density (t/m^3)**	**Perth**	**Melbourne**	**Sydney**
Paper	0.47	**-$6.06**	**-$5.12**	$8.04
Glass	1.66	$26.07	$29.39	$75.87
Steel cans	0.33	**-$9.84**	**-$9.18**	$0.06
Aluminium cans	0.15	**-$14.70**	**-$14.40**	**-$10.20**
Plastic containers	0.21	**-$13.08**	**-$12.66**	**-$6.78**
Timber packaging	0.47	**-$6.06**	**-$5.12**	$8.04
Green waste	0.90	$5.55	$7.35	$32.55
Food waste	1.19	$13.38	$15.76	$49.08

* Adapted from USEPA*, Characterization of Municipal Solid Waste in the United States: 1994 Update*

Based on this, the diversion of all materials other than glass, green waste and food waste from landfill makes economic sense for the landfill operator based on reported current gate fees, and this might be expected to occur where the landfill operator has control over the collections. This financial connection has, however, been lost in the separation of waste collection from waste disposal.

If one returns the connection between collection costs and disposal costs, then an astute landfill operator could reduce the losses by over $6/tonne if paper can be extracted from the landfill. This is in addition to income earned from the recycled product. Glass is notably unaffected by either of these incentives – it is profitable to landfill and is a recycled product of marginal value (particularly in Perth).

By taking into account these incentives, a recycling service can be crafted that results in a net benefit to the community, including (eventually) lower landfill disposal prices as the average income for each cubic metre of airspace is increased due to a higher average waste density. This, of course, relies upon the structuring of economical collections.

Furthermore, where competition is most vigorous, and thus landfill prices lowest, the commercial incentive to divert low density waste from landfill is enhanced. The current regulatory approach to "market based" instruments (primarily landfill levies) weakens these incentives by creating a glut of recycled product in the market and creating inefficient, state subsidised recycling industries.

Costs of landfill

The draft report goes to some lengths to critique the Nolan-ITU work on external costs from landfill. We do not disagree with these comments, and have found the Nolan-ITU estimates of landfill impacts at best naïve, and at worst dishonest. Their work has demonstrated the critical methodological flaws in life-cycle costing, and indeed, indicate the overall weakness of cost-benefit analysis of environmental matters. It is no coincidence that much of their work is conducted for clients developing alternative waste technology (AWT) projects or seeking to justify such projects. Their assessment of the risks and impacts from landfill is typically grossly overstated, and the risks and impacts from AWT understated. For instance, the discussion of greenhouse impacts focuses heavily on methane emissions from landfill, but the emissions from AWT biofilters is disregarded. Studies in Austria and Germany have indicated high emissions of methane and nitrous oxide (which has ten times the greenhouse effect of methane), as well as emissions of odorous compounds from such biofilters.

We agree with the submissions regarding the lack of impact from landfill on the environment. A Best Practice landfill should not impact upon air or water quality, and where these impacts are observed, the regulators have more than enough powers to address the matter and should exercise them. Any failings here are not inherent in the use of landfill, rather they are symptomatic of under-resourced regulators. It would seem that, if regulators took the resources currently expended on "resource recovery" and diverted them into the enforcement of health, safety and environment protection legislation, the external costs would be internalised (including NIMBY reactions). It is a continual source of frustration for operators of Best Practice landfills to see poorly operated sites treated leniently and, in doing so, adversely impacting the landfill industry in general.

Greenhouse gases

The report discusses the greenhouse merits or otherwise of landfill gas extraction. Our experience in the industry is that, whilst regulators do state policy preferences for landfill gas extraction and management, these preferences is rarely mandated unless there are significant odour management issues at a site. To consider the stated preferences to be mandatory is to overstate their significance in regulatory action, and any attempts by regulators to impose such requirements, where they are not warranted for environmental reasons, could probably be successfully opposed by landfill operators.

The extraction of landfill gas for power generation has had an excellent adoption across the industry, with most, if not all, major landfills that create significant quantities of methane having power generation facilities. Again, this is not usually for environmental or regulatory reasons, rather there are strong commercial incentives for businesses that specialise in the extraction landfill gas for power generation. This development has largely occurred without the prompting of regulators, and a number of Australian companies have developed technologies in the field that are exported internationally. The management of landfill gas is an excellent model for waste management into the future, as it demonstrates the benefits of synergistic operations at a centralised waste management facility.

Cost shifting

A further aspect of the regulation of waste, and an element only slightly picked up on in the draft report, is the overwhelming tendency for agencies to shift regulatory costs to local government and/or industry. Usually under the guise of "influencing", this imposes costs of waste education, on-going implementation of programmes after the initial establishment funding has ended, recording and the provision of information on waste generation and disposal, and even the review and assessment of monitoring data. Few of these issues have long term funding from regulators, notwithstanding the fact that regulators usually receive landfill levy income ostensibly for the implementation of these programmes.

Regionalisation of local government

The report alludes to the likely need for local government to seek regional solutions for its waste management, citing the experience in Victoria as an example. We consider the Victorian, and even the NSW, experiences to be poor examples of how such a system might work. In both of those jurisdictions, the regional groupings are too loose to withstand any tension that might arise between member Councils. To reduce these tensions, the groups then shy away from addressing difficult issues, rendering them of limited effectiveness. The experience with these groups is that they are generally dominated by a single Council, often the largest or the richest, and the action taken is usually restricted to loose planning, general strategy and some sketchy industry intelligence.

In addition to the effect of the loose structure on a group's effectiveness, it also has important implications legally regarding the ability of the group to form joint and binding tenders. A loose grouping undermines the ability for a tenderer to be sure that it will get the critical mass it seeks to provide the prices sought. This places an extraordinary amount of risk on the tenderer. However, the corollary is that, if Councils commit to the provision of certain tonnages for a service or a facility and there are penalties for lesser tonnages, there is a disincentive to minimise the generation of waste which should be the object of the exercise.

The WA structure for regional councils is, we believe, an exemplary model. By making the regional council an entity in itself which is controlled by the member Councils, the risk for tenderers is better partitioned, and the council is able to provide better service to its member Councils. Rather than being a talk-fest where action is eschewed, it can take on the difficult waste management problems that the individual member Councils do not have the personnel or financial resources to manage.

Information provision

Reference is made to the provision of information regarding costs and externalities in the waste management industry. We agree that information should be actively and publicly reported. The current situation where some information is only available under Freedom of Information requests, if it is available at all, makes for poor decision making. Information is a key part of knowledge and informed debate, and it is reliable and trusted information along with open dialogue that will enable NIMBY responses to be overcome. It also enables the community to hold its regulators and waste industry accountable, just as it enables the waste industry to self-regulate and adequately plan for new infrastructure.

We would like to see the following reported for all facilities active in the waste management industry. This could be made available via the website of environmental regulators, able to obtained quickly and at no charge:

- All environmental monitoring data;
- All licence information, including details of inspections and investigations;
- Quantities and estimated composition of waste received; and
- Pricing of waste received. Costs of waste management should not be sought, as this is commercial information.

SUGGESTED FUTURE DIRECTIONS

Waste management is a field of regulation that has not been subject to critical scrutiny for a number of years. In this time it has accreted layer upon layer of complexity, each degree of complexity reinforcing the next and forming self-serving justification for additional regulatory action. In forming this overwhelmingly regulated sphere of action, the economy has been unnecessarily burdened and innovation has been stifled. Indeed, it now seems that the only means through the system of waste regulation is to find a regulatory patron. This is extraordinarily inefficient, particularly where regulators do not (and indeed, cannot) have detailed knowledge of every facet of the industry.

As a result, the first step that must be taken is that regulation be stripped back to the minimum necessary, but that minimum be enforced. This includes:

- Remove or substantially reduce landfill levies. Landfill levies have not been shown to achieve any of their stated objectives to any significance, they place a heavy burden on the economy, and the availability of almost unlimited funding has led to inefficient spending on programmes not critically assessed.
- Regulate only that which is required to be regulated to achieve environmental objectives. Placing controls, such as those on compost application rates or the length of time materials can be stored for processing, makes it harder for innovation to be exercised.
- Remove waste from regulation as early as possible in the treatment cycle. For example, it is absurd to treat a concrete crushing facility as a waste facility since its impacts are identical to hard rock crushing. Regulators should, at every turn, look to get materials out of the waste regulation system rather than expanding the system to engulf all materials.
- Take decisive action against non compliant facilities. If some industry participants feel that they can get away with non-compliant operations, they will not make the necessary changes and decision making will not be based on a true foundation of fully internalised costs.
- Require open and transparent reporting from participants in the waste industry as well as their regulators. These reports should err on the side of completeness.

Further to these steps to strip back regulation, the role of environmental regulators in waste management must be challenged. In general, they lack the knowledge and experience of the waste sector to make decisions about its fundamental elements. They generally do not have a clear understanding of the flow on effects of waste policy into the broader economy (the naïve belief that higher waste prices will reduce waste generation with only minor impacts of inappropriate disposal is a key example), however regulators make regular pronouncements and issue edicts that rebound across the entire industry.

The role of environmental regulators should be restricted to that which they understand, namely controlling environmental impacts. Contrary to the recommendation in the draft report, the development of waste policy should be intertwined with resource policy, and brought into the fold of broader industry policy developed by the various industry agencies. These shifts will ensure that decisions are made without the exaggerated perceptions of risk and importance attached to waste by regulators. When the environmental and health risks are controlled, the transition of waste management to its rightful place as a factor in the competitiveness and resilience of industry will be complete.

Yours sincerely

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