Submission by the

Housing Industry Association Ltd

to

The Productivity Commission Inquiry into Waste Generation and Resource Efficiency

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Statement:

The enclosed submission has been prepared by the Housing Industry Association in response to the Productivity Commisssion Inquiry into Waste Generation and Resource Efficiency.

About HIA

The Housing Industry Association Limited (HIA) is a National association of more than 42,000 businesses from the residential building, renovation and development industry in Australia.

HIA members include builders and building contractors (residential and commercial), consultants, developers, major manufacturers and suppliers. HIA members build over 90% of Australia's housing stock generating significant employment opportunities while making a significant contribution to economic growth.

Introduction - Waste Management and the Housing Industry

Reducing waste to landfill has become a priority activity for all tiers of government in Australia. In a policy environment where environmental awareness and practices appear to be taking precedence, state governments have been aiming to raise awareness of waste management practices, and change actions that occur on site.

Waste management is a complex issue for the housing industry as no single waste management approach guarantees significant waste reduction and cost savings. The industry is dominated by small to medium sized companies, for whom waste management is costly, time consuming and often impractical. Significant barriers still exist for recycling materials. Individual companies are often frustrated as they feel they cannot make a difference due to the lack of economies of scale for the disposal of relatively small amounts of waste generated.

The key areas which impact on the level of recycling and reuse of material include the significant cost of recycling services, limitation and absence of recycling services, site constraints and local government regulation. Until these matters are addressed and improved, changes will be slow.

Education and innovation will assist with change and there some excellent industry and individual initiatives in practice. Some of these are outlined in this submission, including the HIA GreenSmart program.

Of key importance to the Inquiry and the development of policy is the validity of (waste) data. Various data sets in existence have led governments to believe that the building and construction industry is a major contributor of waste to landfill. Yet in the absence of verification of the available (mostly aggregated) data, there is not much evidence to counter this.

The purpose of this submission is to highlight a number of the issue in more detail providing information and feedback around waste management and resource efficiency with specific reference to the residential construction industry. The comments through this response are largely as a result of the significant member interest generated in the topic.

Structure of the Housing Industry and Waste Management

Waste management strategies implemented by housing companies largely depend on the size of the operation. The housing industry is highly competitive, containing more firms than any other industry in Australia. But nearly all firms in the industry are small to medium sized, employing fewer than 20 people. Whilst the market is highly efficient, smaller housing companies have greater difficulty in being able to create the economies of scale necessary to recycle and reuse products than many of the larger building companies.

Whilst some larger builders are able to generate sufficient economies of scale in arranging for materials to be recycled, they also experience difficulty in finding services that offer total solutions which include collection of all materials from site.

The industry's reliance on trade contractors means that many building companies are also working with multiple contractors, creating a number of constraints for recycling waste materials. It is more difficult to implement systems for waste management with such a disparate workforce.

Data on Waste

The lack of reliable data on the nature of waste to landfill is a significant barrier to the market understanding the depth and breadth of this issue. There has historically been little reliable disaggregated data on construction waste available. Previous estimates have been based on small samples of sites, using visual estimation of waste volumes, "snapshots", government estimates and aggregated data rather than following a scientific process and studying selected landfill sites over time.

Data collected on waste generated from the construction industry does not usually take into account the breakdown of waste between commercial and residential sites. This is an important delineation as it is difficult to apportion waste to these sectors in the absence of qualified data. Given the market structure of the commercial and residential construction sectors, disaggregated data is critical.

Accurate data is very difficult and time-consuming to collect due to the mixing of wastes on site and the effort required to collect, sort, categorise and measure the volumes. However, in the absence of such information it is not possible to properly quantify the problem and respond with appropriate policies.

Recommendation:

Governments should facilitate accurate collation and recording of data at landfill and recovery facilities.

Waste Management and the Small Builder

Waste Generation Issues

Traditionally smaller builders undertake some over ordering of material. Whilst this potentially creates more waste, it also ensures that multiple transport costs of material (from reordering) can be avoided. Even with the additional waste generation and disposal costs, it is usually cheaper to operate in this way than to absorb costs associated by the delay and delivery of more materials.

Whilst not ideal from a waste management perspective, builder feedback to HIA indicates there has been considerable effort to ensure more accurate estimating and therefore less waste generation. The advent of pre-fabricated and pre-cut material has helped reduce waste significantly as has the considerable advancements in software technology which creates more accurate estimation of materials required for a job.

Smaller builders working with trade contractors to maintain clean sites and minimise waste generation during the build process is on the increase. Advantageous from a health and safety perspective, there are, however, sometimes difficulties in making trade contractors take ownership of waste. This is particularly evident with the large amount of work available. Larger builders generally have more influence and better systems in place for regular contractors. For smaller builders it is only when the market slows and trades become more freely available that behaviour can be more easily modified.

Local government planning requirements can also promote additional usage and waste of materials for builders. For example if planning requirements dictate unusual setbacks and floor coverage, a varied design can create unusual room sizes that differs from the carefully calculated requirements of a standard design or project home. This tends to create a site with higher amount of waste.

It is also difficult to ensure compliance with Council local laws. Fines are regularly imposed for breaches of the many onerous requirements on small builders, driving up the cost of housing. One example is a (Council) requirement to have skips provided on sites, rather than the sorting waste on site, in trailers or in cages. While this may have advantages in terms of site appearance and safety, it also has the effect of encouraging illegal dumping of non related waste into the skips (and sometimes fines for excess waste that is not the responsibility of the builder). This is a particular problem in established housing areas or partly-developed estates.

Both small and large builders face the problems associated with the disposal of packaging material from white goods much of which is non recyclable.

Recycling and reuse of material

The low volumes of waste generated by individual builders is of little value and often not able to be economically recycled. There is also a lack of available, co-ordinated

services to economically collect the small volumes generated. Both are disincentives to recycling for smaller builders.

The location of transfer stations, in both urban and regional areas is often inconvenient or not readily accessible. The transport of waste to these facilities is costly and time consuming.

Building on small land parcels, particularly on infill sites makes the temporary storage of waste, in preparation for collection by a recycler difficult. Adding to this is the fact that collection services are often too expensive for the homeowners or unavailable in the area required.

Land prices in urban areas are also very high, which discourages the use of storage facilities which were once commonplace so the builder could reuse materials on later jobs.

Waste Management and the Volume Builder

Waste Generation

On an individual site basis, larger builders usually generate less volumes of waste than smaller builders. Often co-ordinating multiple projects over large urban or regional areas, design processes and estimating due to economies of scale are now highly refined. Use of prefabricated materials also assists in generating less waste.

An HIA Volume Builder Member reported that:

"Prefabricated walls are often used because they ensure a cleaner site and less waste."

Larger builders are an easy target for infringement notices in growth areas due to the high level of building activity undertaken. Accidental incidents, such as the tipping of a bin and scattering of rubbish through an estate in high winds attract large fines which are considered in many cases to be unjustified. (due to the unintentional nature of the occurance). Local laws impose restrictive practices on construction, and other requirements, (including temporary fencing requirements and use of specific bins) which also drive up costs and impact on housing affordability.

One company reported:

"The Councils are becoming very litigious in regard to all site practices, parking and waste. The effort to enquire (about) and dispute fines costs time and money. Fines for having bins two thirds full. Fines together with the increases in diesel and tipping fees are causing increasing costs – not all of which can be passed onto the homeowner".

The ability to pass on the costs of council fines is constrained by the fixed contract, which is usual for a project home. These costs are unable to be built into the contract at its inception.

Recycling and Reuse of Material

Many of the volume builders reported significant effort is being placed on disposing of waste materials in the best possible way. The biggest issue is the cost of disposal, which includes the time and effort to arrange. The lack of access to recycling collection services sometimes limits the outcomes achieved. There are only a few companies in the marketplace equipped to provide such services.

It was reported by a Volume Builder that:

"Costs of waste (and recycling) services vary greatly from $1500 – 5000. Costs include tipping fees, bobcat, handling fees and time."

"Councils are issuing fines and this is resulting in concern that builders cannot stockpile waste, cages must be emptied weekly. As a result wording of trade contractor contracts/ purchase orders now states that an element of the scrap material – downpiping, scrap etc must be removed from site by the contractor.

Collection and Recycling Service Providers

There are a small number of providers who are establishing themselves as a "one stop shop" collector of builder material for recycling. The traditional waste circle involves continuous trips for the builder between the site and the tip. Onsite collection services ensure that this does not need to occur and diverts much of the waste from landfill for reuse. One advantage, apart from the recycling benefit, is a set cost per job can be made, including disposal costs, tip fees and council permits - giving some degree of certainty of cost per job.

The concept is also appropriate for both small and large builders as they are able to store all of their materials in one location for collection and furthermore it allows collection services to be able to respond to innovative and new recycling technology.

But currently, the lack of recycling collection services limits the outcomes able to be achieved.

From the service providers' perspective, there is still a lack of suitable sites where the disposal, sorting and conversion process can occur to convert waste to alternative products. They ideally require large tracts of land in order to provide their services, preferably in a location close to the collection point. For this reason there are only a small number of companies offering the service and regional areas are not being well serviced.

Small quantities of a range of materials (as would be generated by smaller builders) often makes collection economically unviable. The separation of these materials makes site management difficult due to the extra space required.

One collection company, operating in NSW, Victoria and Queensland estimates 97% of material collected is able to be diverted from landfill. Bricks, tiles, concrete and rock are all crushed and returned to site (if crushing cannot occur in built up areas, it is conducted offsite), timber is mulched and the remaining materials are all transported off site for separation, sorting and eventual reuse. Metal, plastic (including wrapping), paper and plasterboard are all sold on. The main content of the remaining 3% is food waste. Composting opportunities are also being explored to deal with this.

One medium sized housing company reported to HIA they employ a waste collection service and find it to be cost effective. The known unit cost is advantageous to them and whilst recognising that once the waste has left their site they have no way of verifying where it goes, the company find that typically 45-49% of their waste is able to be recycled thorough this service. (part of the collection service involves reporting back).

Regulation

The housing industry does not support regulation relating to waste generation maintaining that with the right incentives the market will develop an appropriate and cost effective response.

The residential building industry is already highly regulated. Compliance and red tape across all areas, including building, planning, environmental and occupational health and safety regulation together with local Council regulation, fees, levies and charges are overwhelming and individually contribute significantly to the cost of delivering new housing to Australian families. Aggregated, they constrain productivity, inhibit innovation and damage housing affordability.

Regulation is the lazy option for governments disinterested in participating in a joint solution to a quantifable problem. In essence, regulation is often an admission by governments that they have been ineffective. Good regulation requires that policy instruments be compatible with economic realities and deliver a net benefit. Unfortunately much of the regulatory burden on housing does not necessarily provide public or private benefits.

Regulatory reform must be part of the Government's wider micro-economic agenda to develop a healthy and productive business environment. Government must review and remove any regulation which is not efficient in cost-benefit terms.

Cost of Regulation

For too long, new regulations have been imposed on unsuspecting homebuyers who now face significant increases in their housing costs as a result of a "creeping" regulatory burden.

Regulations also impose administrative, compliance and production costs (builders are forced to routinely change design and construction methods or products in order to

meet regulatory requirements). 85% of the housing industry comprises small businesses and HIA members repeatedly inform the Association of the daily struggle to manage red tape and continuously change product, design and specifications due to new regulation. Multiple and differing regulation generates additional waste and significant costs. As a result, governments should only regulate where necessary, where there is a clear net benefit.

Costs should not be borne disproportionately by individuals or businesses, particularly where there is a public benefit arising from the imposition. Alternatives should be adequately considered, and measures adopted that maximise the net benefit for the community without penalising individuals such as first home buyers.

Governments are increasingly regulating as a primary response to policy needs, irrespective of the economic implications. New regulation has been introduced on the basis of what may be perceived to be 'good ideas' or administrative convenience with little consideration of net benefit.

Where regulation is proposed it should encompass:

- Identification of the problem – evidence, extent, social and economic cost
- Clear identification of the objectives
- Full consideration of the alternatives before regulation (should be least net cost or maximum net benefit)
- Cost benefit analysis – no disproportionate burden should be placed on individuals or business
- Application of alternatives – non regulatory solutions should be fully explored
- Minimum necessary regulation to achieve policy objectives

But principle deficiencies of building regulation in recent times have been the lack of consideration of net benefit, an apparent disregard for who bears the cost, poor problem identification and lack of access to relevant data, no real consideration of non-regulatory alternatives and inadequate lead-in times for industry to familiarise itself with the practical detail of regulation impacting on design and construction.

National Competition Policy dictates that unless it can be demonstrated that a net benefit arises from regulation and there are no other alternatives of achieving the same end, then that regulation should be repealed.

Governments usually intervene in markets where there is market failure. In the housing sector, Governments have long had a role in regulating construction, issues of health, safety and amenity and in maintaining a watch dog role through the various consumer affairs and fair trading portfolios.

While there may be reasonable argument for regulating minimum construction requirements through the Building Code of Australia on the basis of safety and amenity, the arguments for government intervention in the relationship between the housing industry and its clients is less clear. In many cases government regulation has far outstripped the nature and complexity of issues that emerge in the relationship between the industry and its clients.

In terms of waste management, both large and small builders have expressed the need for some uniformity with waste management, but that this does not need to be a regulatory solution.

The promotion of voluntary and self regulatory methods will generally produce a higher level beyond that which is achieved with a minimum regulatory standard. Industry is leading the way with some very innovative solutions already on the ground. A better way forward for governments would be to support these approaches and gain a better understanding ot the problems and associated data.

An industry-driven Code of Practice for waste management is considered to have a much greater chance of success in minimising building waste than a regulatory regime. It would also go some way to achieving some national uniformity in waste management.

Recommendation

Governments should

- ***Refrain from the immediate implementation of regulation for waste management for the housing industry unless there is demonstrable net benefit from it's introduction.***
- ***Actively promote voluntary and self regulatory methods of waste management to produce a higher level of activity and outcomes beyond what is achievable with a minimum regulatory standard.***
- ***Support industry led innovations in waste management strategies and practices.***
- ***Facilitate and fund the development of an industry-driven code of practice for waste management to provide some national guidance on waste management processes.***

Education

GreenSmart – a Housing Industry Initiative

The housing industry though its GreenSmart initiative leads the way in providing builders and trade contractors with guidance and awareness of the need to minimise and manage waste generated during building processes. The GreenSmart program emphasises the need to adapt designs and minimise waste and recycle materials rather than dispose of them.

The program advocates cost effective alternatives to be identified locally, and developed jointly by major players such as builders, trade contractors, waste management firms and manufacturers and in some cases local Government.

The GreenSmart program provides guidance on the complex issue of waste reduction on building sites. It provides waste management models that help the building industry to:

- implement improvements to avoid generating waste;
- minimise waste during building operations;
- reuse and recycle waste where avoidance is not attainable or is impracticable; and
- efficient and appropriate disposal of excessive waste.

The intent is clear through HIA GreenSmart that avoidance or at lease minimisation of waste from the building process is the most desirable outcome on the basis that:

- although disposal costs may represent a cost of total construction, these costs are impacting on the proportion of profits;
- material wasted on site is paid for twice—once in the original purchase and secondly in its disposal;
- a proportion of waste on site can be recycled, and therefore natural resources conserved and landfill space preserved;
- there are occupational health and safety implications and possible liabilities for waste on sites—a clean site is a safe site;

Recommendation:

Governments should support industry based initiatives such as HIA GreenSmart to educate and inform their membership about optimal waste management strategies with the aim of reducing waste disposal to landfill.

Life cycle analysis

The full life cycle analysis of products from extraction/creation onto use and ultimate disposal is worthy of more detailed analysis.

It may be timely for governments to commit to the undertaking of product life cycle analysis of materials on some of their major projects which would result in some good data collection. State governments could consider funding research which tracks material production and disposal on other sites as well. Better policy would result from this approach.

Also the establishment of a national materials inventory would identify where the greatest gains could be made in terms of waste management and reuse of products.

State Government agencies could also work towards providing incentives for those companies who can demonstrate life cycle analysis is part of their core business as a way of improving their environmental performance. Also they could provide valuable data back to state government to improve long term policy outcomes and assess the costs and benefits of such an approach.

Recommendation

Governments could

- ***introduce incentives to companies prepared to conduct life cycle analysis of a material to assist with the creation of better waste data sets.***
- ***Establish a national materials inventory as a way of identifying the greatest areas of gain in relation to waste management.***

Concluding Comments

Additional requirements on the housing industry in relation to waste management should not be imposed in the absence of critical and valid data sets on the contribution made by the industry to landfill waste. Without qualified data it is difficult to either make good policy contributions or indeed even consider any regulatory mechanisms in relation to waste management.

Constraints experienced in the housing industry with regard to waste management clearly relate to the structure of the industry. A dominance of small to medium sized companies means the creation of economies of scale for recycling and reuse of unused product is difficult. Even larger companies experience difficulties with recycling products with a lack of collection services available.

There is a role for governments to play in assisting with the collection of accurate data, in researching the life-cycle of products and supporting the industry in leading the way in new innovations and technologies for product recycling and reuse. Excellent industry based initiatives such as HIA GreenSmart and a commitment by many of the trained GreenSmart professionals are leading the thinking and practice on the ground in the housing industry.

There are a number of recommendations made in the response and these summarised below:

Governments should:

- Facilitate accurate collation and recording of data at landfill and recovery facilities.

- Refrain from the implementation of regulation for waste management for the housing industry unless there can be demonstrated a clear net benefit from its introduction.

- Promote voluntary and self regulatory methods to produce a higher level of activity and outcomes beyond what is achievable with a minimum regulatory standard.

- Support industry led innovations in waste management strategies and practices.

- Fund the development of an industry-driven code of practice for waste management to provide some national guidance on waste management processes

- Support industry led innovations in waste management strategies and practices.

- Support industry based initiatives such as HIA GreenSmart to educate and inform their membership about optimal waste management strategies with the aim of reducing waste disposal to landfill.

- Introduce incentives to companies prepared to conduct life cycle analysis of a material to assist with the creation of better waste data sets.

- Establish a national materials inventory as a way of identifying the greatest areas of gain in relation to waste management.