



Waste Policy Taskforce
Department of the Environment, Water, Heritage and the Arts,
GPO Box 787
Canberra ACT 2601

15 May 2009

Dear Sir/Madam,

Thank you for the opportunity to respond to the Australian Government's National Waste Policy consultation paper.

Global Renewables operates the Eastern Creek UR-3R Facility which recycles residual household waste from a western Sydney population of around half a million people. We have international experience in advanced waste treatment (AWT) and are keen advocates of sustainable waste management policy.

We support the many detailed points raised in both the joint Boomerang Alliance and ACOR submission and in the WMAA submission and provide our own comments against your consultation questions in the attachment to this letter.

We strongly support the development of a National Waste Policy focussed on resource efficiency, not merely waste management. That means recognising the need for a "paradigm shift" from waste disposal to resource recovery or resource conservation. For a sustainable future, Australia needs to be a recycling society, not a throw away economy.

Focusing on resource conservation means giving real attention to intergenerational equity: especially meaning that we do our very best to conserve scarce metals and to ensure we can feed ourselves for generations into the future.

Future generations should have the same access to key resources for food and goods that we do. The world's phosphorus reserves would last for less than 200 years at US consumption rates according to an article in the New Scientist magazine. And in terms of metals, one study concluded that there is now more copper in America's landfills and tailings dams than there is left in the ground in mines. We cannot justify leaving our descendants without the means to feed and equip themselves just because it is cheaper to throw resources out in our generation.

It is therefore vital that any national waste policy addresses the issue of resource conservation in organics and metals particularly. Disposing of organics in landfills is not a natural disposal method and causes the conversion of organics to methane which has up to 25 times the greenhouse intensity of carbon dioxide, which would have been the natural fate of the food and garden waste if it had been disposed of naturally and beneficially on land. Recycling organics to agricultural uses also has the added benefits of improving water and nutrient retention, reducing acidification, reducing the need to use fossil fuels to produce chemical fertilisers and sequestering carbon. There is no sustainable agriculture without reuse of organic nutrients- the world is made to run that way.

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It is also important to the production of quality recycled organics products to separate heavy metals and other toxics from the residual waste stream. The only effective way to do this appears to be in Extended Producer Responsibility (EPR) schemes where the end-of-life products have a value attached to them, sufficient to fund a network of collection depots and beneficiation infrastructure to ensure the recycling of such resources.

In order to drive the remaining products and materials out of landfill, it is essential that landfill levies be applied at a price point that achieves the desired level of waste to landfill. Funds raised from levies should be hypothecated to support recycling and recovery infrastructure.

It is important that future waste management targets are not set in terms of landfill diversion, because the current emphasis on percentages is an encouragement to count in all sorts of irrelevant materials- such as for example post industrial scrap (which has a value and would not end up in landfill) and meat byproducts which already have scrap value.

The work currently being done on a nation waste policy comes about because the community is tired of seeing continual increases in waste to landfill, while stories of increasing landfill diversion percentage are quoted. We must focus on reducing waste to landfill in absolute terms- i.e. fewer tonnes to landfill.

We should not be diverted from the goal by discussions of how much it will cost to reduce dumping. After all, a century ago we managed to dump a small fraction of what we dump now even though GDP was much lower. The fact is that under the current systems, if we become wealthier, we will dump more, not less. We need to break the nexus between GDP growth and waste growth and this requires resource recovery focus, especially on reducing the landfilling of organics, packaging and metals.

From a policy perspective, this is not going to happen until we have federal, state and local structures that are focused on resource recovery. Global Renewables therefore supports the formation of regional resource recovery authorities, with adequate financial and technical resources from commonwealth and state funding and able to direct local authorities' waste strategies. Given the great progress being made in the United Kingdom, we believe that similar waste reduction targets to theirs could be adopted, especially organics targets such as a reduction of biodegradable municipal waste to landfill to 35% of 1995 levels by 2020.

AWTs are one essential component of an integrated resource recovery system at national level. To support the widespread adoption of AWT infrastructure, we would like to see national waste policy support state regulations that gradually ban the landfilling of untreated organic wastes and support the infrastructure shift through appropriate waste levies, state resource recovery authorities and local government landfill targets that reduce landfilled waste to sustainable levels. Adapting a system such as the UK's Landfill Allowance Trading Scheme (LATS) with private finance initiative (PFI) systems funded through waste levies would soften the financial impact on councils while radically reducing landfilled municipal waste. The construction of economically-sized AWT funded through PFI initiatives would also provide the core infrastructure for treatment of Commercial and Industrial waste, if landfill levies are raised to provide a level playing field of recycling against disposal.

Yours faithfully,

Global Renewables P/L



John Lawson
General Manager Development

ATTACHMENT- DETAILED RESPONSE TO CONSULTATION QUESTIONS.

1. *Are there opportunities to further coordinate, harmonise or streamline approaches to waste management across jurisdictions?*
 - 1.1 Starting from scratch about what the goals of waste management should be in the 21st century is vital to developing a national waste policy. Some jurisdictions have “zero waste” as an aspirational goal, some have an implied “zero waste” goal and some have nothing.
 - 1.2 There is an opportunity to shift waste management from where it’s started in public health, through where it now is in terms of environmental emissions reduction, to a real sustainability focus. A national lead is essential for this to happen. This needs to drive state and local focus on resource recovery and conservation.
 - 1.3 State waste levies should have some harmonisation at least, so that waste is not driven across borders but the proximity principle is applied.
2. *Are the categorisations, definitions and standards used to manage waste between and within the different levels of government effective and appropriate?*
 - 2.1 There needs to be national agreement about the categories of waste (not disparate applications of the valuable, but now-outdated Australian Waste Database) and then agreed standardised methods of monitoring, analysis and reporting.
 - 2.2 Because there is no effective national policy and inconsistent state policies, by the time local government seeks to implement an outcome, they are lost.
 - 2.3 Recent local government tenders are sometimes setting unrealistic goals for landfill diversion which would be less likely to be adopted if there was common knowledge of actual outcomes being and likely to be achieved.
 - 2.4 There needs to be a national recognition that waste management strategy has got to be replaced by resource management strategy and that landfills are not a part of the solution, but a symbol of failure to recycle.
3. *Do the current waste management frameworks across jurisdictions: deliver an effective regulatory framework? provide an appropriate suite of approaches to address waste and resource recovery issues? work effectively in conjunction with planning and other environmental legislation? provide the right incentives to manage materials, products and waste sustainably and holistically? need improving, and if so, how could this be done?*
 - 3.1 The current commonwealth system has virtually no impact or influence in the bulk of local waste management outcomes. It does seem to be effective in terms international obligations and conventions, it has not, for more than a decade, had any significant impact on reducing waste to landfill.
 - 3.2 There is very little organization anywhere in government addressing the huge infrastructure delivery need- even a 10% increase in landfill diversion requires the installation of infrastructure capable of processing and selling an additional 2 million tonnes of products per year.

- 3.3 Divergent state government targets and goals just breed strategic confusion, but at least some of the leading states (e.g. NSW and Victoria) have pushed on towards reduced landfilling through various different tools from capital grants to increased waste levies.
 - 3.4 Local governments should be joined together into service purchasing groups which acquire AWT sites and contract out the service delivery.
 - 3.5 Extended producer responsibility schemes at a national level are required to drive hazardous materials such as lead acid batteries and gas bottles out of residual waste, and close the loop on other metals-bearing products such as waste electrical and electronic equipment.
 - 3.6 Differential landfill levies should be applied so that the reduced-impact residues of recycling processes have lower charges.
4. *In the 1992 National Strategy for Ecologically Sustainable Development, COAG endorsed the strategies and objectives for a national approach to waste management (Appendix A). Looking ahead to the next decade, how could these strategies and objectives be updated to provide the basis for a national waste policy that responds to current and future challenges and opportunities?*
- 4.1 We need a national goal for resource recovery and reuse, and we need national targets for waste to landfill in absolute, tonnage terms. This will give a solid benchmark against which to measure progress.
 - 4.2 Resource recovery strategy should supersede waste management strategy and state governments should put in place resource recovery authorities charged with achieving national goals.
 - 4.3 We should value resource recovery. At least do some predictions for future resource values and support the recycling of those resources at least 50 years from now in terms of inorganic resources, but in terms of food resources, take a look out several centuries to focus on the value of phosphorus, potassium, land, water and so on, so that we don't continue in the direction which is increasing salinity, acidity and food resource depletion.
 - 4.4 Local governments are best equipped to handle collection and education tasks, but don't have the scale to implement efficient AWT solutions for instance. AWT and other processing (post-collection) activities should be handled by joint state and local authorities.
 - 4.5 National standards should be developed for resource recovery facilities so that Australian companies don't have to develop different technological responses to the same resource recovery task in adjacent states. Some progress towards this end has been seen in for example the state-funded WMAA AWTDORF process, but more effort in a wider range of issues is justified.
 - 4.6 The EPHC process does not seem to be adequate to achieve national harmonisation of environmental goals and often seems to lead to embarrassing stalemates. Under these circumstances, perhaps more central authority is required.

5. *What waste issues would most benefit from a national approach? What strategies could be considered and how could the need for local solutions be integrated with a national approach?*
 - 5.1 National organics recovery integrated with sustainable agricultural research would reward effort.
 - 5.2 National EPR schemes that create funding for local collection and consolidation points would radically improve recycling, grow jobs, and provide an infrastructure for recycling more materials than the EPR schemes cover.
 - 5.3 A national coordination of state purchasing policies in relation to recovered resources would shine an light into some dark areas: why do state authorities not require recycled organics in road construction; why don't state authorities use more recycled aggregate in roads and concrete structure?

6. *Are there waste management initiatives in operation overseas that could apply in the Australian context? If so, which ones and why?*
 - 6.1 The UK's Landfill Allowance Trading Scheme could well be adapted for Australian use. Under this scheme, national landfill targets are reflected in those of individual councils and annual targets mean obfuscation and procrastination are reduced. Also, councils that lead are rewarded by trading credits to councils that lag. The councils are also rewarded with national private finance initiative credits to offset capital costs.
 - 6.2 The UK's Packaging Recovery Notes system would increase the recycling of packaging and make the recycling of currently non-commercial products financially viable.

7. *Australia needs to safely manage hazardous waste and waste containing hazardous materials over the long term. Are there any changes to current arrangements that would improve Australia's capability to safely manage hazardous waste, for example in regard to adequate infrastructure or disclosing the contents of goods and substances?*
 - 7.1 Demand for renewable fuel from waste sources would immediately increase if PVC was removed from the waste stream.
 - 7.2 Lead acid batteries need a national EPR system to drive them out of residual waste.
 - 7.3 TVs, computers and other WEEE needs national legislation to drive EPR.

8. *There are a number of approaches to product stewardship operating in Australia. What, if any, role is there for a national approach and what would be the costs, benefits, opportunities and focus of such an approach? What models might work in Australia?*
 - 8.1 The National Packaging Covenant is better than nothing, but it is not focused on the whole packaging stream (e.g. plastic bags don't have any priority but get lots of media). Its progress has also been very slow.
 - 8.2 Product stewardship schemes need to be developed on a broad basis across virtually all material classes and if they don't work, EPR schemes should be

implemented in place of PS. This threat would drive better retailer cooperation with the PS.

9. *Are there any aspects of waste management that could be improved or streamlined through adopting national standards?*

9.1 A national standard for waste-derived composts is important, given the quantity of these materials and the need to keep them out of landfill.

9.2 A national recovered-fuels standard would also be helpful, especially in terms of feedstock to the normal range of power stations and cement kilns.

9.3 National bin standards would make it easier to provide national education.

10. *What fundamental data sets does Australia need to collect to better inform waste management policies, practices, investment, business operations and to assess and manage risk?*

10.1 There is very poor data available in most jurisdictions and virtually none in others.

10.2 Data needs to be sampled, analysed and reported to provide an indication of waste characterisation on a representative and reliable seasonal basis in all significant jurisdictions.

10.3 State Governments seem to be too embarrassed to publish current waste management statistics. They shouldn't be, but a national publishing system may avoid the problem.

10.4 Data from any licensed facility needs to be aggregated in a way that will allow proper materials flow analysis so that we can nationally track movements in resources and their fate. This is not an impossible task, given the existence of state-licensed facilities and access to computer data.

10.5 Annual reporting against goals should be the norm in all jurisdictions.

11. *What, if any, place should there be for approaches that seek to avoid waste through changes in design, production processes and transport?*

11.1 Waste avoidance should be the primary driver of waste policy.

12. *What changes could be made to improve management of the municipal waste stream and those of the commercial and industrial sector and the construction and demolition sector?*

12.1 Municipal councils should be responsible for waste collection and education, but processing should be facilitated at regional level and contracted out to the private sector.

12.2 Commercial and Industrial waste AWT facilities should be incorporated into planning for MSW AWT and financed in part by EPR schemes- including CDL and PRN systems.

13. *Landfill is currently the primary means of waste disposal. What, if any, changes need to be made to manage Australia's waste stream in the long term given current trends in the volume and nature of the waste?*

13.1 Landfills should not be viewed as a sustainable waste management solution for the bulk of waste as they are presently, but as a symbol of our failure to recycle.

13.2 AWT facilities should as their primary goal, recover organic wastes as valuable agricultural resources so that we can feed coming generations sustainably.

13.3 AWT facilities which have maximised the recovery of composted resources should be designed to produce renewable energy either biologically or thermally, or through production of RDF (engineered fuels) for use elsewhere in Australian industry.

14. *Reducing the amount of organic waste sent to landfill has the potential to contribute to reducing greenhouse gas emissions as well as other potential environmental and economic benefits. What are the benefits and opportunities, costs and disadvantage of increased diversion and/or recycling of organic wastes?*

14.1 World phosphorus reserves are less than 200 years at current US consumption rates. We need to recycle organics (MSW and sewage biosolids) to continue to feed ourselves. Landfills are so contaminated with toxics and heavy metals spread uniformly through the organics and ground into them, that landfills will never be mined for fertilisers.

14.2 Recycled organics application to farm land provides all the nutrients- not just N, P and K- required to grow food again.

14.3 Recycled organics applied to farm land improves drainage and water absorption, increases moisture retention, reduces water demand and conserves scarce water resources.

14.4 Recycled organics applied to farm land is a valuable means of carbon sequestration, both through conversion of a small amount of the organic C to intractable organics like glomalin, but by increasing biological activity in the soil and pulling in more organic C to preserve and extend the carbon activity in the soil. This improves soil health and tilth, reducing farm input costs.

14.5 Recycled organics applied to farm land increases the cation exchange capacity of the soil, reducing the loss of chemical fertilisers.

14.6 Organics should be progressively banned from landfill.

14.7 Landfills should be run as aerated "dry tombs" not as bioreactors so as to avoid the generation of explosive and greenhouse-intensive methane.

15. *What, if any, changes are needed to the way e-waste is managed?*

15.1 Every other system has failed. EPR schemes are required here as advocated by the TV and computer industries.

- 15.2 The new schemes should give rise to depot that can handle and recycle other wastes for recycling- e.g. CFLs, smoke detectors and lead acid batteries.
16. *The Carbon Pollution Reduction Scheme will apply to emissions from landfill. Are there related approaches that would complement the scheme and thus contribute to meeting the emissions targets and the timeframes set in the Australian Government's climate change policy?*
- 16.1 The UK LATS strategy should be applied to Australian landfilling.
17. *What are the opportunities to reduce water and energy use through the way waste is managed?*
- 17.1 A policy of increasing soil organic matter (in part by adding recycled organics to land) allows farming systems to adapt to climate change by building resilient soils, capturing and using water more efficiently, reducing erosive runoff, modifying soil temperature, reducing the need for chemical fertilizers and reducing tillage.
18. *In what ways can waste management and resource recovery (including recycling, re-processing, re-manufacturing) industries add further value to the economy and create employment?*
- 18.1 A detailed response to this question is included in the Boomerang Alliance and ACOR "National Recycling Initiative" documents and we support this approach wholeheartedly.