Department of Sustainability and Environment

Waste Policy Review

Have your say

Thank you for your interest in providing feedback on waste and waste management in Victoria.

The Waste Policy Review will examine the strategic, legislative, institutional and investment settings that influence the nature and performance of waste management.

Your feedback will help us draft a new solid waste policy that will address Victoria's long term challenges in waste and take advantage of future opportunities and emerging technologies in resource recovery and waste management.

If you do not already have a copy of the Waste Policy Review discussion paper, you can obtain one from the DSE website at www.dse.vic.gov.au/waste. To request a hard copy contact wastepolicy@dse.vic.gov.au or call the DSE Customer Service Centre on 136 186.

Feedback guidelines

Your feedback should clearly specify the question/s you wish to address.

Ideally, and where possible, your feedback should include supporting information, evidence and data. This will help develop a new solid waste policy that is informed by a strong evidence base, reflecting the experience of government, industry and the Victorian community.

Written submissions should ideally be kept to no more than 20 pages using this template.

Submissions are due by: Thursday 3 May 2012

State Government Victoria

Department of Sustainability and Environment

Waste Policy Review

Please write your feedback on the following pages and specify which question(s) you are addressing.

Waste management in Victoria

1. What is causing waste generation to grow?
2. What are the impacts of increasing waste generation on the economy, environment and public health? Are we getting the best value out of waste?
3. How much effort should we put into waste avoidance, compared to waste recovery?
4. Should we do more to remove food, organics, plastic and paper from landfill? What would be the value of this?
5. What are the barriers to removing these materials from landfill? How could they be overcome?
6. What impact will the carbon tax have on waste management in Victoria?
7. What information can you provide to the State Government about how these drivers affect waste management?
8. Are there other drivers that should be considered by the review?
9. Which aspects of current policy have worked well and should be retained? Which aspects have not worked well? Are there gaps?

Developing a new direction for waste management

10. What is your vision for waste management in Victoria? What are your needs and expectations for waste management in Victoria?
11. What are the important ideas and outcomes that policy objectives need to include in the development of waste policy?
12. What ideas should be addressed by decision-making principles?
13. Should the waste hierarchy, or a cost-benefit analysis of the environment, economic and health and well-being impacts, be used in decision-making?
14. What targets and performance measures could be used to measure and evaluate our success in achieving our policy objectives?

Achieving our vision for waste

15. Are there significant, ongoing market failures and barriers that require government to intervene in waste management activities? If so, what is the role of state government in responding to these failures?
16. Do current services and infrastructure to recover materials meet business, community and environmental needs? If not, what should improve?
17. Is infrastructure to recover materials, while protecting the environment and health, adequate?

State Government Victoria

18. How can the State Government provide the right policy environment to support good investments?
19. What is the role for State Government in working with industry and local government to achieve efficient and effective investment?
20. Is there a role for State Government in developing and creating markets for recycled products? If so, what is it?
21. How can the productivity and growth of Victoria's waste management system be maximised?
22. What market based instruments might Victoria use to get maximum value from waste generation and recovery?
23. What are the major opportunities to reform waste regulation to better protect the environment and reduce red tape?
24. How can we prevent and improve our handling of illegal dumping?
25. Should infrastructure planning for each waste sector be improved?
26. What is the right balance between planning for local and for statewide needs and how can it be achieved?
27. How can links between infrastructure planning and approvals processes be improved?
28. Does the current Victorian land-use planning framework adequately facilitate the establishment of innovative waste processing technologies?
29. Has enough been done to clarify roles and responsibilities?
30. How can decision making by agencies be better coordinated?
31. What opportunities may arise from the national policy agenda? What problems might need to be managed?
32. What additional information is needed about waste management?
33. How could the current waste knowledge management system be improved, and what might be the benefits? How can we ensure that the costs of gathering more data do not outweigh the benefits?
34. What types of information and facilitation could help businesses increase productivity through waste avoidance and recovery?

General comments

35. Please list your top three issues around waste in Victoria.
36. Any further comments that you would like to make.

Department of Sustainability and Environment

Waste Policy Review

Submitting feedback

Your feedback will help to prepare a new Victorian solid waste policy and as such, may be made public. If you would like your contribution to remain confidential, please mark this clearly below. Please note, Freedom of Information access requirements will apply to all submissions, even those treated as confidential. For information about the DSE Privacy Policy you can go to www.dse.vic.gov.au/privacy-policy

Do you want your input to remain confidential? If so write 'yes' here: ___

Please submit your comments and feedback in one of the following ways:

- By email to wastepolicy@dse.vic.gov.au
- By post to

  Project Manager Waste Policy Review
  Department of Sustainability and Environment
  PO Box 500
  East Melbourne VIC 3002

Personal details

Your personal, business and contact details will be kept confidential. By providing them, we can keep you informed of the next steps and how the solid waste policy develops.

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We appreciate your interest in helping to prepare a new Victorian solid waste policy and taking the time to provide your comments and evidence in the following section.

The Waste Policy Review Team

Respond to as many, or few questions as you wish, ideally providing supporting information, evidence and data:

Executive Summary

Bosco International Renewable Energy Pty Ltd (Bosco) is grateful for the opportunity to make a submission to the Victorian Government's Waste Policy Review. The initiative shown by the Government in engaging with industry and the community about the policy and regulatory settings concerning the management of Victoria's waste is very positive. Ensuring that the regulatory and policy settings are sustainable, efficient, effective - as well as encouraging of innovation - is both welcome and timely.

The core business of Bosco, a proudly Victorian company, is to develop and take to market innovative, sustainable and efficient energy solutions. Bosco wants to contribute to a long term and environmentally sustainable solution to Victoria's energy needs. To that end, and after substantial research, Bosco has identified the best solid recovered fuel technology in the world. That fuel is the Pirelli Ambiente high quality solid recovered fuel (HQ – SRF), for which Bosco is the Australian licence holder. HQ-SRF is a low emission, odourless fuel, comprising a mix of solid domestic, industrial and commercial waste (including car tyres) which can be combined with brown coal to reduce emissions from the major power generators. It is a proven technology. The Pirelli Ambiente HQ-SRF technology had been successfully utilised in the EU since 2003. HQ-SRF is the only solid recovered fuel in the world rated as High Quality (HQ).

Bosco firmly believes that a truly modern policy position and regulatory framework for waste management in Victoria needs to include a focus on exploring opportunities for utilizing waste in the most environmentally and economically responsible manner. Bosco is most encouraged by the commitment in the review to "examine the strategic, legislative, institutional and investment settings that influence the nature and performance of waste management." In this context the following comments from Bosco focus on the changing characteristics of the waste sector, in terms of new regulatory settings and innovative technologies, and proposes issues and options for the Government to consider to enable the Victorian community to maximise the opportunities of these new paradigms. The submission therefore addresses select relevant questions.

It is hoped that the suggestions made in this submission assist the Government's deliberations regarding the establishment of revised, modern and flexible regulatory settings that:

- recognise the changing "market" for waste;
- facilitate investment; and
- contain the necessary flexibility to accommodate emerging technologies.

Question: 1

What is causing waste generation to grow?

There is a direct causal link between population growth and the generation of both industrial and household waste in Australia. Increased private consumption, industrial production and building activity have together acted to increase the level of waste generated and hence demand for waste management services. Waste volumes will be positively affected by a rise in per capita consumption of highly processed and packaged foods, and a rise in home delivery of goods which tend to involve high levels of packaging.

As well as increasing in size, the sector is changing in terms of its key characteristics. Traditionally the Waste Management Sector has been viewed as having four main areas: generators (waste sites), waste transport, treatment of waste and disposal. New areas such as recycling and waste prevention have emerged as a focus in recent years. Sophisticated waste management services are being introduced to reduce simple collection and landfill and move to high technology recycling and specialist services in waste minimisation.

Waste to energy on a significant scale is also now a reality. There is strong momentum for the development and refinement of technologies that increase the capture of energy from waste treatment and processing. As the population continues to increase, it is environmentally and economically imperative for the energy generating capacity of domestic and commercial waste to be maximised.

Question: 2

What are the impacts of increasing waste generation on the economy, environment and public health? Are we are getting the best value out of waste?

The second part of Question 2 is central to considering the way we as a community think about waste. Technological advances in waste treatment mean that the traditional way we consider waste (ie: as an economic "bad", representing only costs on the economy), is changing. Because the technology now exists to treat and co-fire significant amounts of complex waste products with existing energy sources, waste is increasingly being viewed as a resource, not a bi-product. This change has been felt most strongly in Europe, where co-firing technologies have given rise to waste conversion operations in several EU countries, most notably in the UK, Italy and Germany.

Pirelli Ambiente's High Quality Solid Recovered Fuel (HQ-SRF * see *Attachment A)* is the next generation of waste to energy technology, and Victoria has a unique opportunity to take advantage of it.

Under existing arrangements, the Victorian waste stream has the potential to become effectively a cost stream for the economy. With no returns along the way, large community costs in collection, storage and disposal of waste products are incurred. Through rating mechanisms and a series of levies and charges, these costs are spread across the economy, but a significant cost is incurred by municipalities and hence ratepayers. This "economic" problem is increased when the costs of storing or disposing of waste increase. As available and viable landfill opportunities reduce, and a corresponding increase in the rate costs of storage due to charges on emissions from landfill etc, means that this costly status quo is not environmentally sound or economically sensible.

In summary, now that the HQ-SRF technology, the most efficient, effective and "green" SRF technology in the world, a proven technology, effectively turns waste from a economic cost item to a renewable energy source; and now that that HQ-SRF technology is here in Victoria and ready to go; it is vital that the policy and regulatory settings keep pace with these advances and enable the Victorian community to "get the best value out of waste".

Question: 6

What impact will the carbon price have on waste management in Victoria?

The waste management sector is a carbon emission intensive sector and therefore the establishment of a legislated price for that carbon pollution, or a carbon tax, will have a significant market impact. It is difficult to make confident predictions about how any market will behave, but this is especially so when that market is immature. The establishment of a market for carbon pollution creates a new waste market. Every one of the approximately 15million tonnes of carbon dioxide equivalent greenhouse emissions the Victorian waste sector generates a year will now have an additional cost associated with its production. At a start up price of $23 per tonne it is vitally important for the sector to avoid emission and therefore costs. Given that about two thirds of those emissions come from landfill, clearly it is in the interests of the sector to reduce the amount of material going to landfill.

Alternative, less emissions intensive alternatives to landfill need to be sought. Bosco can provide part of the solution. Because the carbon market makes polluting so expensive, electricity generators reliant on emissions intensive fossil fuels, like the brown coal generators of the La Trobe Valley, are seeking alternative means of achieving the same energy output at a lower emissions rate. Bosco's HQ-SRF technology, so suitable for co-firing with brown coal, enables waste otherwise destined for landfill to become part of the energy stream instead of the waste stream.

The establishment of the carbon market creates new incentives. Pricing carbon emissions creates clear incentives to avoid emissions at source, such as landfill, and incentives for generators to produce cleaner energy have never been greater in Australia.

Question: 10

What are your needs and expectations for waste management in Victoria?

The nature and extent of the changes occurring in the waste management sector in Victoria have been discussed earlier in the submission. Suffice to say that significant changes in quantum, anticipated major cost imposts, and the fundamental re-alignment of the existing market incentives gives rise to the need for a significant overhaul of the relevant policy and regulatory architecture.

Specifically, the extent to which the current regulatory framework, which has the *Environment Protection Act* 1970 (EP Act) at its core, is sufficiently flexible to accommodate these changes requires careful consideration. Given that the EP Act establishes waste management agencies and sets their objectives, it may be necessary to consider drafting amendments to the legislation that specifically provide for waste to be directed to the production of renewable energy. Every effort should be made to draft any new provisions in such a way as to allow waste to be treated as a commodity with a value.

"Importantly, the waste policy will ultimately only succeed if the waste management system unlocks the value in waste". Bosco could not agree with the review team more strongly on this point. 'Unlocking the value in Victoria's waste" could even itself be an appropriate "Vision" for the review to adopt.

Question: 11

Section 5 of the Discussion Paper considers what "triple bottom line" means for the waste management sector. The construct adopted, as set out below, is perhaps not as helpful as it might be because the difference between a purpose and objective is not clear. As an alternative, the review team might want to consider using Objectives in the left hand column and Strategic Priorities in the other.

The limitations of the construct notwithstanding, some suggestions from Bosco have been added (in blue) to the below table.

Purposes Objectives	Possible objectives Strategic Priorities
Health and well-being	Protecting health Protecting amenity Involving community in drive to reduce carbon pollution
Resource efficiency	Maximising net benefits and economic return through waste management Ensuring Victoria's regulatory settings (especially EP Act) facilitate the establishment and operation of the waste market. Strengthening industries and businesses through a waste management framework that unlocks the value in Victoria's waste Increasing productivity by doing more with less, and ensure that only the minimum amount of waste is directed to landfill where it becomes a direct cost and pollutant Freeing up valuable land by reducing the need for landfill Flexibility and the ability to adapt and keep pace with change
Environment	Maintaining and protecting the environment by implementing programs that reduce waste at source, utilizes waste that is generated (waste to energy) and ensures that which cannot be re-used is disposed of in an environmentally sustainable way

Question: 16

What targets and performance measures could be used to measure and evaluate our success in achieving our policy objectives?

A key objective of the project to review the waste management framework in Victoria is to instil a notion of best value or "unlocking the value in waste". Performance measures to determine the extent to which that value is being unlocked need to be embedded into the policy. A notion of "impact" needs to be reflected in a suite of performance measures designed to answer the question "how will we know when government activities are having an impact on "unlocking value".

In the context of an output management program, impact is often discussed in terms of budget impact. A programs relative significance is often, and mistakenly, measured by its budget impact. That is, how much are we spending on this program or this output. Obviously, that is not an accurate reflection of impact. Other times the urgency or magnitude of the public policy issue being addressed by government activity is mistakenly discussed in the context of impact. But again, recording activity, such as the number of policy submissions prepared, or meetings attended, on a key issue reflects effort, not impact.

In attempting to gauge impact, it is constructive if not essential to return to the objectives of the activity being undertaken. This assumes a clarity and universality of purpose that is not always present. So there are challenges with this framework, but it steers thinking helpfully. All programs, initiatives, activities of government have a purpose, an objective. This is not always overt or easy to identify, especially retrospectively, but there is a stated or "state-able" purpose behind activity.

To what extent are the activities being undertaken meeting their objectives is the question that performance indicators need to address. The level of new investment in alternative technologies can be measured for example. The amount of waste directed to renewable energy could be another measure that tells us about the impact of the regulatory settings and whether they are meeting their objectives. Simplicity, measurability, continuity (to enable year on year comparisons) and reflective of impact as opposed to activity are the key principles of a meaningful performance management framework.

Question: 18

How can the State Government provide the right policy environment to support good investments?

If, as the Discusssion Paper states, the Victorian Government wants to unlock the value of waste in Victoria, the overarching policy position needs to support investments that will bring about that unlocking. Because technology advances rapidly, and the carbon market is immature and developing, a traditional, prescriptive, exhaustive approach to policy and regulation - where approved technologies and/or market realignments need to be approved and prescribed before they become operational - is not ideal. Policy settings need to flexible enough such that the market can mature organically wherever possible and within the broader policy parameters.

The best way the State Government can provide the right policy environment to support good investments is by adopting a principles based approach rather than a prescriptive one. Rather than "picking winners', then prescribing regulations to accommodate a new technology or approach, such as Bosco's HQ-SRF, the Government could establish a set of principles that would convey to the market that providing market developments or innovations were consistent with those principles, the Government will allow their development.

Such principles based questions could include, *inter alia*:

- is a proposed regulation necessary to achieve the objectives of government?
- is there a market failure that requires a government intervention?
- is there a less restrictive means of achieving the government's objective?
- is the policy/regulation consistent with the broader environmental objectives?; and
- is it consistent with the governments social and resource objectives?

Research and development investment in the waste sector, in Australia and the EU particularly, is proceeding apace. The government can, through a principles based approach that is sensible and consistent, signal to the investment community that Victoria is a sound jurisdiction to invest in, and bring those technological opportunities to life.

Attachment A

About Bosco and HQ-SRF

High Quality Solid Recovered Fuel HQ-SRF is one of the most effective renewable energy sources on the planet.

- Bosco Energy has the exclusive rights to Pirelli Ambiente high quality solid recovered fuel (HQ – SRF) in Australia.
- The Pirelli HQ-SRF is obtained by adding components with a high calorific power (plastics and rubber from tyres) to Municipal Solid Waste (MSW). HQ-SRF is then co-fired with brown coal.
- HQ-SRF has 2-3 times the calorific value of LaTrobe Valley brown coal.
- HQ-SRF can be co-fired in existing LaTrobe Valley power plants at a ratio of 10-90%.
- Co-firing HQ-SRF with brown coal produces significantly fewer emissions per unit of energy than burning brown coal alone.
- Unlike solar, wind and wave power, HQ-SRF can be used to provide base load power

Reduced waste to landfill.

- Potentially reduced costs for councils and so ratepayers
- A genuinely "greener" way of disposing of waste
- Significant environmental benefits of reduced methane generated from landfill and associated carbon emissions savings

To convert waste to energy, Bosco proposes to build a **$200M facility in the LaTrobe Valley.**

- Facility is a an "intelligent transfer station" (ITS).
- Building of plant will be employment intensive.
- When operational (2013/14) the ITS will **employ approximately 200** people. These are new jobs, real jobs, sustainable jobs.