

# ***ENERGY FROM WASTE SUSTAINABILITY PROJECT***

## ***NOTES FROM THE SHEPPARTON STAKEHOLDER WORKSHOP***

**Held:** Thursday 10 October 2002

**Time:** 10.00 am until 1.00 pm

**Venue:** Parklake Motor Inn

481 Wyndham Street Shepparton

For more information on the Energy from Waste Sustainability Project please visit the project website:

***[www.wmaa.asn.au/efw/home.html](http://www.wmaa.asn.au/efw/home.html)***

Or contact the Project Manager,  
Matthew Warnken  
Phone: (02) 9571 4800  
Email: [matthew@warnkenise.com.au](mailto:matthew@warnkenise.com.au)

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This project is an initiative of the:

***Energy from Waste Division of the  
WASTE MANAGEMENT  
ASSOCIATION OF AUSTRALIA***

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AUSTRALIAN  
Greenhouse  
Office

## **Introduction**

There are a number of issues and concerns associated with energy from waste projects. On the positive side, recovering energy from waste can generate renewable electricity, reduce the amount of waste disposed of to landfill and reduce greenhouse gas emissions. However, there are also potential negative environmental and human health effects associated with energy from waste projects.

The Energy from Waste Division of the Waste Management Association of Australia, with assistance from Commonwealth funding through the Australian Greenhouse Office, initiated the process of developing a Sustainability Guide to resolve these issues. Part of this process was a national series of eleven stakeholder workshops.

The purpose of the stakeholder workshops was to ensure that all of the positive and negative factors associated with Energy from Waste (EfW) projects were identified and then incorporated and resolved within a Sustainability Guide for EfW. It is intended that the Guide will be used to ensure that Energy from Waste projects maximise benefits and minimise negative impacts in a way that supports the sustainable development of Australian society.

Below are the issues that were identified at the Shepparton Stakeholder Workshop. These issues will be integrated into a final report, representing all of the issues raised by workshop participants at this and the other ten national workshops.

The issues identified at the workshop will be used as a “yardstick” against which the Sustainability Guide will be measured, both to ensure that all issues have been addressed in the Guide, and to ensure that the philosophical basis of the Guide is correct.

## **Round Table Discussion**

There were 16 participants at the Shepparton Stakeholder Workshop. (A participant list is included as Appendix 1). Participants were seated around three tables to discuss issues related to Energy from Waste. The summary of the discussion from these three tables was recorded onto over-head transparencies and is presented below exactly as scribed.

A catalogue of issues recorded by participants onto flash-cards is included as Appendix 2. These issues are also presented exactly as scribed. The colour of the flash-cards was used to differentiate between tables.

**Yellow Table**

- Community
  - Community acceptance.
  - NIMBY siting, recycling perceptions.
- Technology
  - Maturity and feasibility, “cowboy” companies.
- Emissions
  - Better known at EfW than LF, residue disposal.
- Greenhouse
  - Diversion from fossil fuel use.
- Markets
  - Compost.
- Economics
  - True cost of LF, revenue for Councils, regionalisation of facilities, increasing calorific value of MSW, volumes in rural areas and transport distance, reduced handling costs of recyclables collected at EfW facilities.
- Life Cycle Assessment
  - Applicability of material use (eg: recycling vs. energy recovery) TBL.
- Government Regulatory framework
  - environmental standards.
  - LF diversion.
  - Long term planning as with LF.

**Red Table**

- Quantifying the Need/Benefit
  - Why isn't it happening now? Landfill pricing, siting issues facing local government, “much more than a technology issue”.
  - not high on the business agenda.
  - EfW is a political issue – local government and community.
  - Siting issues.
  - Don't give away Recycling – must handle residuals.

- What needs to be Done?.....Right now!!
  - Define "Residual waste".
  - Quantify volumes, types, calorific value, technology characterisation and location.
  - Database development.
  - Consider current alternatives.
  - Identify current SWAT analysis.
- Technical Issues
  - Relevant approach after data collection
  - Moisture Content.
  - Costs of Disposal – vested interests.
  - Need for volume, consistent feed and efficiency of use.

### **Blue Table**

- Impacts
  - residues (eg: ASM) – need for landfill?
  - undermine community commitment to recycling? Recycling infrastructure and businesses.
  - Will it encourage more waste?
  - Need to control waste input to predict impacts.
  - Which option will support resource conservation best?
  - How to measure the best outcome? – criteria?
- Costs
  - Need to measure costs/benefits.
  - External economic influences/drivers eg: levy declines – levy on EfW? Greenhouse credits? and future landfill costs.
  - High capital costs – long pay back period – risk of rigid contractual commitments.
- Technology
  - Need for flexibility – new technology, new waste uses, Government regulations, regional needs.
  - Consistent feedstock – flexibility to allow variations in available waste.

- Need for interested infrastructure.
  - Strategically located plant
  - maximum efficiency/benefits.
  - Reduce Costs
  - Factors: available fuel, jobs.
  - Holistic process.
- Lessons from overseas.
  - Need to critically analyse
  - Adopt/adapt to suit Australian needs.
- Waste as a fuel.
  - Need to think beyond current waste streams (eg: medical waste).
- Social
  - Key issue – need community support.
  - Need to educate/influence the community.
  - Transparent approval process.
  - need to build on currently community goodwill for recycling and extend to EfW.
  - Need to get it right – not many chances to win community.
  - Participation? eg: WMAA working group – needs to broaden to include the community and service providers.
- Policy
  - Need for regulators and stakeholders to be open minded.

### Results of Citizen's Jury

These are listed in the table below.

<b>Table</b>	<b>Strongly No</b> EfW has <b>no</b> role to play in any form	<b>Contingent</b> EfW has a role to play but that role is determined on case by case issues	<b>Strongly Yes</b> EfW <b>always</b> has a role to play in any form
Yellow	0	3	2
Red	0	5	0
Blue	1	2	2
<b>Totals</b>	1	10	4

### General comments from the tables regarding energy from waste;

#### Yellow Table

- Need for full understanding.
- Need for leadership to bring community along.
- Rural circumstances (scale, cost, volume).
- Target t location's needs
- No future in LF.

#### Red Table

- Technology/Commercial decisions must match local specific needs.
- Data on feedstock's is the first consideration.

#### Blue Table

- Role is being driven by government and regulators.
- Triple Bottom Line essential, economics has been ignored in the past.
- Must be better than landfill.
- Need to maintain commitment to recycling – ongoing potential.

**Appendix 1 – Shepparton Workshop Participants**

<b><i>Name</i></b>	<b><i>Organisation</i></b>
David Beard	City of Greater Bendigo
Cr Yvonne Davies	Moira Shire Council
Garry Elliott	Cleanaway
Steve Gore	Goulburn Valley Regional Waste Management Group
Bob Graham	Samara Engineering
Peter Harriott	Greater Shepparton City Council
Bill Hunter	Greater Shepparton City Council
Alex Malone	City of Greater Bendigo
Daryl McClure	Greater Bendigo City Council
Cr Murray McDonald	Campaspe Shire Council
Nicholas Nagle	Goulburn Valley Regional Waste Management Group
Llew Sandford	EnviroQuip
Cr Alan Sutherland	Greater Shepparton City Council
Cathy Van der Zee	EcoRecycle Victoria
Christine Wardle	Meinhardt
Matthew Warnken	Warnken I.S.E. P/L - Project Manager and Workshop Facilitator

## **Appendix 2 – Catalogue of Issues Identified at the Shepparton Workshop**

### **Yellow Table**

- Long term planning.
- Renewable Energy Production.
- Discussion from landfill.
- Markets for products other than energy (eg: bio-products from digestion).
- Saving fossil fuel and thereby the release of further carbon into atmosphere.
- Use of compost from composting operation.
- Reduction of greenhouse emissions.
- Negatives
  - re-directs focus from “greener” forms of energy such as solar and wind.
- Environmental risks are better unknown and controlled possibly?
- Potential for unforeseen or not easily controlled emissions.
- Disposal of residues.
- Environmental Impacts (eg: Air pollution).
- “Cowboy” technology providers.
- Technology Maturity and Feasibility.
- Community Acceptance.
- Community acceptance and perceptions.
- Impact on avoidance, re-use and recycling.
- Could be a neg - reduction of some materials that could be recycled.
- Life Cycle Assessment of Recycling versus EfW.
- Reduce handling costs – process recyclables mechanically – accept energy as bonafide value of rubbish.
- Political will.
- Getting government bodies to agree on environmental standards.
- Volumes – rural area’s lack of volume. Long distance for delivery.
- Economics;
- Economic - potential for councils to derive revenue from sale of energy.
- accepting the true cost of landfill versus. EfW.
- Positives

- reduces large capital expenditure on landfill site re-establishment and restoration costs.
- Negatives
  - Large Capital Costs.
- Government Approvals.
- Positives
  - reduces landfill space.

### **Red Table**

- Justifying the need/benefit. ie: quantifying the problem.
- Waste – resource and benefits.
- Many unlicensed landfills.
- Landfills artificially cheap!
- Much more than “technology” issue.
- Why isn’t it happening now?
- EfW is a political issue – both local government and community views.
- Little Community Reaction.
- Not high on a business agenda.
- Impediments to waste in industry, especially \$cost and time.
- Appropriate siting. “Nimby”
- “Sell” benefits to community.
- Don’t give away recycling – “Feed the Furnace” – residuals only.
- Danger of destroying incentive of reducing waste.
- Lots of technology information available.
- Moisture Content inefficiencies.
- Need for volume and consistent feedstock.
- EfW equals opportunity and need for new landfills.
- ! Impacts of Toxics in Feedstocks for EfW and landfills.
- Technical issues.
- Septic Tanks – energy recovery.
- Increasing costs of landfill. Eg: financial assurances - growing awareness.
- Transport \$
- What needs to be done? .... right now.
- Have we exhausted existing opportunities? eg: composting.

- Database – where are the materials? Types, volumes and frequency.
- Need for eg EPA regulation?
- Opportunities for Simplicity. Eg: Single Bin – dirty MRF Systems.
- Opportunities to use existing facilities.
- Need to quantify available feedstocks and calorific values.
- Define “residual waste”.
- Material for EfW – “It’s gone”.

### **Blue Table**

- Quality of wastes input – affect environmental impacts/outputs.
- Is there any waste from the process?
- Would it encourage an increase in waste production?
- Is there a cost benefit from this process
- Is the cost sustainable
- Technology
  - flexibility
  - capacity to respond to new developments.
- Need to recognise that different regions will require different solutions - no std fix.
- Waste Facility. W2E – predominately requires consistent feedstock. We need to ensure technologies are flexible and can cope with variable feedstock.
- Lessons from overseas – good or bad.
- All forms of waste and or fuels need to be considered in order to get a real indication of economic viability.
- Is there direct representation from the community
- Problems associated with community acceptance and education regardless of which process is favoured.
- NIMBY! – community consultation.
- What are the criteria for a successful method.
- Selection criteria will need to be prioritised for local area.
- Planning restrictions/E.P.A. rules/ Policy etc is forcing landfill costs and development up and out. EPA and EC.R Victoria need to embrace something and assist in the sustainable development of it so as not to continually put unaffordable impost onto communities.
- Perception of ERV is that it is simply recycling based and W2E is not a real option - Is ERV and EPA open minded?

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- Can we use recyclable materials as a fuel source due to their high calorific value?
  - Would there be a need to recycle ie: paper/cardboard, plastic etc?
  - Will the process allow for recycling?
  - Resource conservation.
  - Risk of undermining higher order uses of materials.