ENERGY FROM WASTE SUSTAINABILITY PROJECT

HOBART AFTERNOON WORKSHOP SESSION NOTES

Held: 18 September 2002

Time: 2.00 pm until 5.00 pm

Venue: The Lands Building

134 Macquarie Street

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

www.wmaa.asn.au/efw/home.html

Or contact the Project Manager,
Matthew Warnken
Phone: (02) 9571 4800
Mobile: 0418 238 040
Email: matthew@warnkenise.com.au

This project is an initiative of the:

Energy from Waste Division of the
WASTE MANAGEMENT ASSOCIATION OF AUSTRALIA

Commonwealth Government funding through the Australian Greenhouse Office supports this project.

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.

After the Hobart Workshop a smaller group was invited to discuss and debate these issues in light of the draft Sustainability Project Scoping Principles that had previously been prepared by the Working Group of the EfW Sustainability Project. A list of the participants in this afternoon session can be found in Appendix 1. Another focus of discussion was the potential requirements for an EfW Industry Code of Practice.

The results of this discussion are presented below. The information is presented exactly as scribed by the facilitators in the afternoon session, and as grouped by the participants of the afternoon session.

The information will be used by the Working Group of the EfW Sustainability project in the preparation of the Sustainability Guide and an Industry Code of Practice.

Project Scoping Principles

The issues that were identified at the Hobart Stakeholder Workshop were discussed and, where possible, grouped under the relevant project scoping principle. This indicated that in the Sustainability Guide the discussion related to that principle should adequately identify and resolve the issue. In some instances the same issue was grouped under more than one principle.

Issues that were not covered by a project scoping principle were grouped and either a new principle was suggested or a recommendation as to how those issues should be dealt with in the Sustainability Guide was made.

Note: 'xxx' denotes an unreadable word in the workshop materials, the superscript is for archival purposes to aid the project managers to track these items.

Project Scoping Principle #1 - Best Use of Available Materials

Aim: To demonstrate that use of the available residual materials for conversion to energy represents the most sustainable use in both the short and long term.

Below are the issues that need to be covered by PSP 1.

- Focus on "Waste Hierarchy" – reduce/reuse etc.
- Set up of Recovery Operations at WTS
- Is burning organics the best use of the resource?
- Concern that waste to energy may undermine waste management hierarchy
- Look at incentives to maintain R.R.R.
- Continue to encourage waste minimisation
- Waste from Old Landfills – can it be used?

Project Scoping Principle #2 - Selection of Optimum Conversion Technology

Aim: To demonstrate that the selected EfW process is the most efficient conversion technology for the available fuel source(s) in the circumstances. Conversion inefficiency means wasted resource value.

Below are the issues that need to be covered by PSP 2.

- Long distance transportation of Efw
- Pilot WTS to feed into facility.
- Acceptability/Perception of new technologies.

Project Scoping Principle #3 - Systems Quality Control for Assurance of Optimum Environmental Outcomes

Aim: To demonstrate that where the available residuals cannot be presented entirely fit-for-purpose, that the selected conversion processes and management systems can control unacceptable by-products or pollutants or unintended environmental impacts.

Below are the issues that need to be covered by PSP 3.

- Reliability/Availability of the Plant.
- What happens during non-operation, risk of breakdown?
- Environmental effective emission control (sale point).

- Health risks
- Emissions (types and levels).
- Waste residues
- Waste stockpiles.
- Emission monitoring.
- Role of DPIWE – regulation/enforcement.
- Resource recovery - Defferal at site.
- In order to achieve sustainability, compliance essential.
- Discussion on need for regulatory framework.
- Is there a social responsibility to ratepayers if they have already invested via Council in eg: a landfill?
- How will waste after EfW be dealt with eg: by landfill, who runs this?
- Quantity, quality of as/byproducts and their hazard/risk.
- Need guidelines
- What are other alternatives for EfW waste eg: road base.
- Use of natural resources for plant operation (ie: water).

Project Scoping Principle #4 - Management of the Commercial Interface between Waste Generation and Energy Requirements

Aim: To ensure that energy demand cannot stimulate waste generation, and that conversely, waste availability will not unsustainably stimulate energy consumption.

Below are the issues that need to be covered by PSP 4.

- Cost competitive against other techniques.
- Monopoly situation.
- Regulation/management.
- Have we got enough correct data on waste volumes/quantities and calorific value of waste?
- How to build in flexibility so that if R.R.R. is increased, EfW plant does not collapse, then ask for compensation.
- Will EfW add economic burden to local government/community?
- Should continue to encourage waste minimisation

Project Scoping Principle #5 - Measures to Compensate for the Inadequacies of the Prevailing Market Conditions

Aim: To oblige proponents to quantify any required normalisation of market conditions to meet ESD objectives - which may include impact of landfill levies, incentives or subsidies - to demonstrate an internalisation of the environmental externalities.

Below are the issues that need to be covered by PSP 5.

- Economic subsidisation.
- Many councils looking at landfill closure and seeking alternatives
- Removal of Landfill revenue.
- Rehabilitation costs for Landfill Closure: Who Pays?
- Enforced closure of existing landfills.
- Low Landfill charges, no incentive for EfW.
- Who owns waste?
- Waste minimisation opportunities – ensure opportunities remain viable.
- Objective assessment needed of impact of EfW on Community/Social structure versus alternatives vs. status quo.

Conclusions on the Project Scoping Principles

Below are suggested changes to the project scoping principles, including suggestions for new principles.

- Add "optimal social outcomes" into PSP 3.
- Change PSP 2 to "Selection of Optimum Conversion Process" (instead of technology

Other Suggestions for the Sustainability Guide

Below are comments and suggestions regarding the overall sustainability guide, including issues to be addressed in a general discussion.

- A discussion on the broader environmental issues is needed as a preface, including general benefits of EfW
- Training – operators (national training material).
- Benchmarks for performance - economic volume and training
- Economic performance

- No Job losses if PSP 1 occurs ie: more recovery of other materials and therefore more jobs.
- How do you decide what is the best use? Include as a quality assurance methodology – issue of measurement economic/social and environment.
- Include a discussion on the possible greenhouse benefits from EfW.
- Include a discussion on the need for a regulatory framework
- Comments on the methodology for assessing impacts and benefits is required
- Practical issues such as connecting to the power grid need to be discussed

Suggestions for an Industry Code of Practice

A general discussion was held regarding an Industry Code of Practice (CoP). Below are the suggestions and comments arising from that discussion.

- Staffing accreditation and training => external
- Adhere to sustainability guide
- Best Practice –training.
- Industry Standards/Competency.
- Quality Standards – environmental - training.
- Federal/State Regulation Compliance.
- Self regulation – EMS?
- Waste Minimisation aspects – commercial value
- Need for demonstrated compliance with sustainability guide.
- Evolutionary approach to best practice guide and Code of Practice.
- Continuous improvement?
- Appropriate, regular, transparent reporting.
- Commitment to encourage education/information in a credible fashion.
- Good corporate citizen
- DPIWE example of Landfill CoP

Name	***Organisation***
Mark Glover	Renewed Fuels P/L & Chairman of the Energy from Waste Division
Justin Jones	Jones Waste Management
Brad Mashman	Pantechnicon (Tas) Pty Ltd
Matthew Warnken	Warnken I.S.E. P/L - Project Manager and Workshop Facilitator
Iain Williams	DPIWE