

ENERGY FROM WASTE SUSTAINABILITY PROJECT

PERTH AFTERNOON WORKSHOP SESSION NOTES

Held: 1 October 2002

Time: 2.00 pm – 5.00 pm

Venue: Rosie O'Grady's The Irish Pub

71 Canning Highway, South Perth

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

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

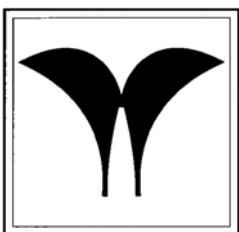
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This project is an initiative of the:

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

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Australian Greenhouse Office supports this project.*



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 Perth 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 Perth 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.

COMMUNITY ENGAGEMENT

- Fear of emissions
- Early debate

LOCAL GOVERNMENT/REGIONAL GOVERNMENT

- Landfill infrastructure
- Isolated communities

COSTS

- True cost of recycling
- True cost of landfill (including post closure)

PERCEPTIONS

- Community preference for recycling

ALTERNATIVES

- Methodology to provide analysis of all options in transparent manner
- Methodology for
 - Lifecycle analysis

TECHNOLOGY

- Quantitative analysis
- Energy rich state

ENVIRONMENTAL

- Additional transport/infrastructure
 - (including siting)

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.

COMMUNITY ENGAGEMENT

- Band wagons

LOCAL GOVERNMENT/REGIONAL GOVERNMENT

- Landfill infrastructure
- Isolated communities

COSTS

- Viability (gate fee)
- Capital cost

PERCEPTIONS

- Transfer of pollution from ground to air

GREEN HOUSE GAS

- Renewable versus fossil based waste (C dating?)

CO-FIRING

- Establishing new facilities versus co-firing in existing

TECHNOLOGY

- Alternatives
- Sufficient Reviews
- Quantitative analysis
- Database/catalogue for comparison
 - Need for more information
 - How do you select

ENVIRONMENTAL

- Additional transport/infrastructure
 - (including siting)

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.

COMMUNITY ENGAGEMENT

- Band wagons

COST

- Variability in waste stream

PERCEPTIONS

- Transfer of pollution from ground to air

TECHNOLOGY

- Emissions

ENVIRONMENTAL

- Emissions (heavy, liquid, gas)
 - Heavy metal concentration in residue
 - Need for data
 - Whole systems approach

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.

FINANCIAL (yellow)

- Lack of project/venture capital
- Tradeable certificates
- Power purchase agreements (or Energy)
- Waste supply agreements

COSTS

- True cost of recycling
- True cost of landfill (including post closure)

GREEN HOUSE GAS

- Green House credits carbon trading.

TECHNOLOGY

- Energy rich state

ENVIRONMENTAL

- Additional transport/infrastructure
 - (including siting)

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.

FINANCIAL

- Tradeable certificates

COSTS

- True cost of recycling
- True cost of landfill (including post closure)

GREEN HOUSE GAS

- Green House credits carbon trading.

TECHNOLOGY

- Yields

Suggestions for New Project Scoping Principles

COMMUNITY/SOCIAL

- It was suggested that a new principle “PSP 6” be created that encompassed the need for community involvement. This was created early in the discussion and issues pertinent to this new principle are identified below.

Project Scoping Principle #6

PERCEPTIONS

- Transfer of pollution from ground to air
- Community resistance to waste to energy technologies
- Vocal minority/biased views.
- Community preference for recycling.

ALTERNATIVES

- Analysis of all options in transparent manner
- Lifecycle analysis

COMMUNITY ENGAGEMENT

- Fear of emissions
- Early Debate

SOCIO-POLITICAL ISSUES

- Government responsibility and control
 - Objectivity
 - Test protocols
- NIMBY
 - Lack of education and leadership
 - Balance between waste management and energy requirements
 - Solution focused not problem focused
- Coordination
 - Regional infrastructure versus local waste
 - Holistic system approach
 - Transparency of processes

PSP 6

- Broad ongoing consultation and some assessment of community whether localised or broader
- project by project basis in addition to broader general industry consultation (review every 3 years)

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.

- Introducing the need for economic modelling/assessments.
- Quantification of waste hierarchy.
- Promoters of specific technologies may not be inclined to apply the 5 principles.
- General policy for community consultation.
- Community participation a separate principle or over-arching for all PSP's.
- Separate principle = greater strength?
- Xxx¹ on civic xxx², Department Premier and Cabinet have developed a policy on community consultation. "12 principles"
- Subjective comments in discussion paper
- Require objective language
- Current status quo are fixed contracts. Finance sector may need to \triangle method of project assessment. C limitations of current systems need to be discussed.
- Waste hierarchy used as a tool against EfW LGA's.
- Lifecycle assessments a substitute for waste hierarchy but expensive, difficult to analyse and somewhat subjective.
- Can't consider projects in isolation i.e. other contentious issues may impact community stakeholders.
- "Fighting" the community will guarantee failure.
- Present NIMBY issues up front in guide.
- \triangle of purchasing power. Define what waste you have and then find best available technology (not other way around).
- Sustainability rating for companies.

- Carbon dating for fossil fuels.
- Need to be able to assess greenhouse gas balances against the technology.
- Life-cycle analysis methodology versus principle.
- Current regulatory framework versus new technology
 - Regulators should be concerned with outcomes not technology.
- Problems with resourcing of regulators
 - Document could flag the education of regulators.
- “Gate fee” as economic viability indicator.
- Unlevel playing field with coal fired electricity generators regarding licensing conditions.
- True costs of landfilling need to include remediation costs. Recycling not cheaper than waste to energy. Recycling politically correct.
- Quantification of costs of loss of renewable product if used for W to E.
- People are prepared to pay more for recycling.
- Inconsistent political levels in each state. Need clear process for developers.
- Comment on state government political process
- Discussion of EfW against backdrop of coal fired electricity also with regard to regulation.
- Discussion: acknowledge regulatory conditions
- Need general discussion regarding local and regional government with regard to lethargy and partnerships
- Discussion to acknowledge regulatory conditions
- What’s next in technology?
 - Discussion i.e. need for action

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.

- Ethics (Code)
- Benefit of Signing a COP
- Community Consultation
- Proactive in dealing with government
- Need to be endorsed by regulators
- Needs to be directly linked to outcome
- If majority of industry endorse then government may be persuaded.
- Continuous improvement rather than adhering to licence conditions.
- Measure against which others can judge your company's performance.
- Agree to:
 - Obey existing laws
 - Buy local and EEO
- Provide monitoring data to community i.e. on website.
- Adoption of waste strategy
- COP come under a Co's EMS.
- Commitment to giving monitoring consultant to have 'free-reign'
- Community – work with or operate a community consultation group elected from community.
- Monitoring – facilitate independent monitoring by a consultation group.
- Methodology on how to select independent auditors.
- Post-closure of commissioning
 - Timing element crucial
 - Structured plan not an accident
- Discussion on how quickly breaches of licensing conditions are addressed.
- Move towards most stringent standards rather than commitment.
- Scope for reaffirmation of COP.

- Evidentiary status in reg's. Valuable for approvers and users. How a company is judged versus how a company wants to be measured.
- Methodology should be able to demonstrate that proponent is undergoing process.
- Discussion of true costs of waste disposal.
- Industry as a group to be as transparent and provide as much data as possible.
- Can calculate on a charge basis only – company's won't divulge costs
- Costs to council for M.S.W.
- Tonnage of recyclables disposed to landfill data can be obtained (=level of contamination).
- Consultation in a broad sense rather than on a project basis.
- Obligation to review and update COP or full review every 3 years.
- Why would anyone sign if State Government overrides COP?
- Possible use as lobby document
- Minerals Council Code of Practice

Appendix 1 – Perth Workshop Participants

<i>Name</i>	<i>Organisation</i>
Lilias Bovell	Department of Environmental Protection
Chris Cornish	Brightstar Environmental
Stephen Fitzpatrick	Eastern Metropolitan Regional Council
Mark Glover	Renewed Fuels P/L & Chairman of the Energy from Waste Division
John King	
Julia Lawson	Department of Environmental Protection
Chris Oughton	Town of Kwinana
Matthew Rosser	Blair Fox Pty. Ltd.
Miles Stratford	Global Olivine
Ron Wainberg	Biomass Energy Services and Technology Pty Ltd
Matthew Warnken	Warnken I.S.E. P/L - Project Manager and Workshop Facilitator
Terry Waters	TJ Waters Environmental