

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

## ***NOTES FROM THE TOWNSVILLE STAKEHOLDER WORKSHOP***

**Held:** Wednesday 6 November 2002

**Time:** 9.00 am until 12.00 pm

**Venue:** Mayoral Reception Room Townsville City Council Administration Building  
Cnr Walker and Stokes Streets, Townsville.

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)

Disclaimer: This project has the support of Commonwealth Government funding through the Australian Greenhouse Office. The Commonwealth Government of Australia holds copyright for this document. The Commonwealth is pleased to allow the reproduction, in part or in whole, of this document provided that the meaning is unchanged and that the authorship of the Waste Management Association of Australia is acknowledged. This document does not necessarily represent the views of the Commonwealth Government of Australia; of other sponsors of the Energy from Waste Sustainability Project or of the Waste Management Association of Australia. This document presents many points of view from differing stakeholder groups that were recorded during workshop sessions. No attempt has been made to confirm or deny any of the statements put forward by workshop participants.

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.*



## **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 Townsville 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 9 participants at the Townsville Stakeholder Workshop. (A participant list is included as Appendix 1). Participants were seated around one table to discuss issues related to Energy from Waste. The summary of the discussion from this table 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 at different workshop locations.

## Blue Table

### ECONOMIC ASPECTS

- Cost of segregation
- Unknown costs
- Cheap landfill alternatives

### ECONOMIES OF SCALE FOR SPARSELY POPULATED REGIONS IN QLD

- Decreased volumes for capital associated with EfW.
- Transport distances between communities

### RESOURCE MANAGEMENT AND SUSTAINABILITY ISSUES

- Reduce use of coal
- Reduce energy use
- Greenhouse gas abatement
- Hierarchy of alternatives

### TECHNOLOGY AND PROCESS ISSUES

- Reliability
- Flexibility
- Currency
- Confidentiality (commercial)

### EDUCATION

- Community
- Local Government
- Industry
- Covering whole system – user pays issues

### WASTE STREAM MANAGEMENT

- Managing and control
- Non-homogenous nature
- Waste minimisation (focus on first)

## MARKETS

- creation
- incentives
- development of synergies

## FUNDING AND INCENTIVES FOR INVOLVEMENT

- feasibility studies
- transformation opportunity
- support to make it happen.

## COSTS AND BENEFITS OF PROCESSES

- economic
- environment
- social

## MANAGEMENT AND LEADERSHIP OF PROCESS

- Who should control
  - Region
  - State
  - Federal
- Community involvement

## ENVIRONMENTAL MANAGEMENT

- emissions
- siting
- science of technology

## HOLISTIC MANAGEMENT OF ENERGY

- waste only one input

### Results of Citizen’s Jury

| <b>Table</b>  | <b>Strongly No</b><br>EfW has <b>no</b> role to play in any form | <b>Contingent</b><br>EfW has a role to play but that role is determined on case by case issues | <b>Strongly Yes</b><br>EfW <b>always</b> has a role to play in any form |
|---------------|--|--|---|
| Blue          | 0  | 6(strong)  | 1   |
| <b>Totals</b> | 0  | 6  | 1   |

These are listed in the table below.

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

#### Blue Table

- input information into development of local govt. sustainability cities.

**Appendix 1 – Townsville Workshop Participants**

| <b><i>Name</i></b> | <b><i>Organisation</i></b>                    |
|--------------------|---|
| Mark Allpress      | Burdekin Shire Council                        |
| Greg Bruce         | Townsville City Council                       |
| Bruce Erskine      | NQ Resource Recovery                          |
| Mark Glover        | Renewed Fuels Pty Ltd                         |
| Ian Kuhl           | Citiwaste - Townsville City Council           |
| Lyonelle Lane      | Thuringowa City Council                       |
| Grant Steen        | Townsville City Council                       |
| Billy Tait         | Independent Community Advocate                |
| Matthew Warnken    | Warnken Industrial and Social Ecology Pty Ltd |

## **Appendix 2 – Catalogue of Issues Identified at the Townsville Workshops**

### Blue Table

#### HOLISTIC MANAGEMENT APPROACH

- Regional Holistic approach to energy and measurement
  - Inputs
  - Outputs
  - residues

#### ENVIRONMENTAL MANAGEMENT

- Science of the technology
- Plant siting (NIMBY)
  - Emissions – control
- -ve
  - gas emissions from incineration
  - technologies – what effects on environment

#### MANAGEMENT AND LEADERSHIP OF PROCESS

- Who should drive the bus
  - Community
  - Industry
  - Government
  - Partnerships
- Community involvement regional planning
- Who audits the process?
  - What are the key performances
  - What if they are not met
  - Who cleans up the mess
- Community ownership vs. Corporate ownership
- VESTED INTERESTS
  1. existing technology owners, product producers
  2. in providers interest to maximise gate input (not minimise)

## COST AND BENEFITS OF PROCESSES

- Cost benefit analysis and community education
  - Eg: recycling versus energy production from waste  
and -offering alternatives for people to be involved or retaining them as processers (?)
- -ve
  - Green waste – is there more environmental and economic value from using it as a soil conditioner than as an energy source (have studies been done?)
- Measurements for
  - Benefits (community)
  - Environmental Benefits
- Completion with opportunities for integrated waste use/reuse esp. within small communities. Even mulch.

## FUNDING AND INCENTIVES FOR INVOLVEMENT

- -ve
  - Federal and State government could do more to drive the push for EfW technologies eg: work with local governments, funding etc esp. with MSW and sewage sludge technologies.
- Funding on-ground initiatives and transformation
  - Eg: workshops with users and industry.
  - Incentive funding/startup funding investment.

## MARKETS

- Markets for end product (vs composting plants)
- Possibility of increasing compulsory renewable energy target (ie: ↑ from 2%) to encourage markets and funding.
- Development of synergies with other energy efficiency initiatives (vehicle fleet and emission reduction) eg: Commonwealth. Biodiesel, LGA biodiesel project.
- Costs – affected by low population and transport distances.
- Economies of scale and the pitfalls of regional initiatives
  - Leakages from the system.
- Economies of Scale for North Queensland.

- Population
  - NQ sparsely populated population widespread making commercial viability of energy from waste questionable.
  - Low cost of raw materials eg: coal.
  - Smaller/Regional communities (Distance/Volume)

#### WASTE STREAM MANAGEMENT

- Managing the waste stream at source.
- Control of Waste Stream (and ensuring all year supply).
- Non-Homogeneous Nature of Waste (especially Municipal Waste)

#### EDUCATION

- Perception
  - Lack of education knowledge of + & - 's
  - Eg: cement kilns:
    - emissions,
    - iron stone,
    - coal comparison
- More info and education on possibilities of Council involvement eg: green waste, sewage sludge technologies.
- The potential for the development of Energy from waste industries appears to be one that will most likely be realized, on a regional scale, with detailed pre-planning that involves a high level of public participation...How can that be achieved?
- Waste disposal for domestic users in the north is still largely seen as a free access service or one funded by existing charges – eg: rates collected by city councils, how will the costs of implementing EfW industries be distributed and could “user pays” systems create other problems – such as illegal dumping – which make developments non-viable?

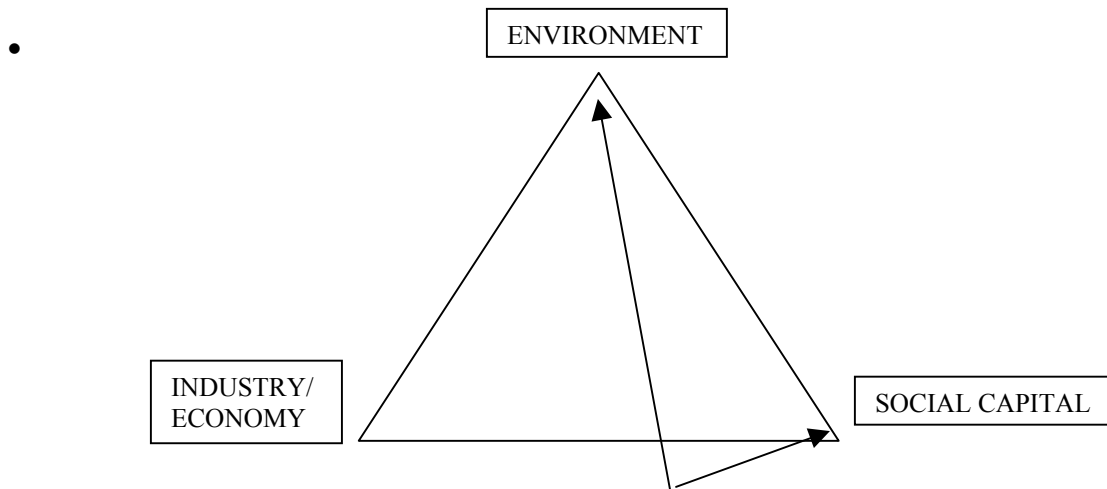
#### TECHNOLOGY AND PROCESS ISSUES

- Secrecy
  - “Commercial confidentiality” clients won’t sign up without certainty of process.
- Reliability
  - Needs to proven before big investment

- Flexibility
  - Ability to adapt to changing technology, licence requirements.
- Entering into long term partnerships with technology which will be outdated during the life of the contract.

RESOURCE MANAGEMENT AND SUSTAINABILITY ISSUES

- Reducing use of locked up energy (coal/petrol) and increasing use of total cycle fuels (eg: biodeisel "CLOSING THE LOOP")
  - tree cane → energy → tree/cane



Waste sustainability. How do you address these 2 issues.

- SUSTAINABILITY – ? Can EfW be limited to renewable resources.
- Hierarchy of alternate technologies



Best Environmental Social and Economic outcomes.

- +ve
  - EfW potential to reduce greenhouse gas emissions + use of non-renewable energy sources.

ECONOMIES OF SCALE

ECONOMIC ASPECT

- Community wants the technology but are not prepared to pay.

- Cost
  - Unknown vs traditional treatment, esp. for regional communities.
- Cheap cost of landfill
- Economic potential of EfW technologies.
- Tripple cost of segregation of waste with calorific value.
- -ve
  - practicality of SWERF or other MSW in regional Qld. Cheaper to landfill?
- Integration of regional planning with waste management eg: coastal planning and landfills on the coast.