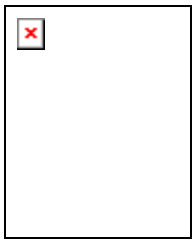
# STATES OF JERSEY



# WASTE MANAGEMENT: ALTERNATIVE SUGGESTIONS OF THE ENVIRONMENT SCRUTINY PANEL

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**Presented to the States on 1st July 2008**
**by the Environment Scrutiny Panel**

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**STATES GREFFE**

## REPORT

### Introduction

The Waste Strategy, approved by the States in July 2005, set out a clear message of environmental responsibility with an emphasis on waste reduction and recycling.

Senator Ozouf, as President of the Environment and Public Services Committee wrote in his foreword –

> "*The island community is ready to embrace a more environmentally aware approach. We want to harness this enthusiasm and we have incorporated proposals to promote and encourage alternatives to simply throwing things into the dustbin which currently end up being incinerated. An ideal situation would be where all sectors of society work towards a target of zero waste. However in the foreseeable future we will be left with some waste as happens in even the most advanced countries*."

These themes were echoed in the Strategic Plan, overwhelmingly approved by the States less than 3 years ago which set out the environmental aspirations for Jersey.

> "*1.1 Show the world that economic and environmental success can work together*
>
> *Indicated by:*
> - *A reduction in per-capita consumption of resources*
> - *Targets and timescales for reductions in per-capita waste arisings that reflect best practice globally*
> - *Targets and timescales for reductions in greenhouse gas emissions that reflect global commitments*
> - *Minimisation of adverse environmental impacts resulting from economic growth*
> - *Conservation and enhancement of biological diversity locally and contribution towards the conservation of global biodiversity where appropriate"*.

The Chief Minister recently launched an environmental campaign under the heading "Keeping Jersey Special" in which these themes of environmental responsibility were again emphasized. He said –

> *"I am proposing a major new initiative "Keeping Jersey Special" which will put the environment at the heart of the Council of Ministers' agenda and be at the core of the next strategic plan.*
>
> *Keeping Jersey Special is designed to deliver a sustainable Island community, at peace with itself and proud of its place on the planet, aspiring to use no more than its share of global resources and achieving at least a 60% reduction in carbon emissions by 2050."*

He also spoke about recycling –

> *"I want the parishes to implement separated kerbside collection of recyclable materials as soon as possible and support Transport and Technical Services in reaching and bettering their new targets."*

It is quite clear that the States are committed to ensuring that Jersey plays a responsible role in the protection of the global environment, and that achieving a high standard of environmental good practice is an important factor in maintaining the international reputation of Jersey.

### Current situation

A firm commitment was given by the President of Environment and Public Services during the Waste Strategy debate in 2005, that the department would consider higher recycling rates and that they would bring forward proposals for 2 options, one based on high throughput, (large incinerator, low recycling) and one based on low throughput (small incinerator, high recycling).

Despite this firm commitment, Transport and Technical Services ("TTS") have not produced a proper alternative to their main proposal. Instead of producing an option based on a small incinerator with high recycling, they have costed a plan to build a smaller 2-stream incinerator now, and then extend it with a third stream almost immediately. Unsurprisingly, this is an expensive option.

They have completely failed to provide the States with a meaningful option, within an advanced recycling scenario.

TTS have included a number of cost comparisons of different waste treatment methodologies appended to their proposition. Background information relating to these options was only made available to the Scrutiny Panel on 6th June and the Scrutiny Panel have been advised by their financial adviser that it would be impossible to undertake any meaningful examination of this information in advance of the debate originally scheduled for 1st July. The cost comparisons fall short of what would be expected by way of a full cost benefit analysis. For example, there is no risk analysis in respect of possible changes in waste legislation.

In any event, the scenarios put forward by TTS make unrealistic assumptions as to the way in which these technologies would be operated in practice.

TTS have included within a JEP supplement, a section entitled "What is the Environment Scrutiny Panel's Opinion". This was written without any reference to the Scrutiny Panel and it misrepresents our views. In particular, the Panel have never advocated the purchase of a conventional 2-stream mass burn incinerator of 80,000 tonnes, with a third stream to be added at a later date.

Given –

- the clear omission of TTS to fulfil the commitments given by the former President,
- the release of information on alternative options at such a late date as to make any financial scrutiny impossible,
- the misleading article published by TTS, supposedly in the Environment Scrutiny Panel's name,
- recent requests by States members for an alternative option to be put forward formally by the Scrutiny Panel,

the Scrutiny Panel feels obliged to put forward an accurate representation of its opinion.

**Recommendation of Environment Scrutiny Panel**

Many communities are adopting the principle of zero waste, in which they seek to progressively reduce the quantity of residual waste to ensure that the smallest possible amount of resource materials is wasted.

With the EU, UK and Guernsey already signed up to achieving recycling rates of 50% or above, the proposal by TTS to work towards a rate of 36% shows a lack of commitment to the waste hierarchy and will be judged as an increasingly poor effort in future years.

Recent advances in recycling technology have led to a wide range of commercial enterprises taking up opportunities in this field. The idea that government should exclusively operate waste disposal routes is an old-fashioned concept, which does not necessarily deliver best value for the taxpayer.

Indeed, if parishioners chose to request their Constable to deliver their recyclable waste to commercial enterprises then TTS might well find that their proposed incinerator would be unable to run at the capacity intended due to a reduction in the supply of material to be disposed of.

The Scrutiny Panel recommends that elements of the optimal approach put forward by Juniper should be considered as a viable alternative to the TTS proposals.

**In particular:**

An integrated approach between the parishes, the States and the private sector should be agreed at the earliest opportunity to provide a source segregated collection of dry recyclables and kitchen waste, in order to drive forward recycling opportunities and the minimisation of residual waste. Collection techniques are now well advanced in the UK. A separate weekly collection of food waste ensures that the residual waste is much easier to handle and less of a health hazard.

Dry recyclables should be sorted and baled in a Materials Recycling Facility for export and sale. Several States members have seen this type of facility in operation during their visit to the MRF in Cardiff. The Panel has investigated shipping costs and received evidence from 3 separate shipping companies, confirming that dry recyclables can be exported to the UK for between £25 and £30 per tonne, and to mainland Europe for approximately £20 per tonne. There is sufficient existing spare capacity on these routes to export all the Island's recycled materials several times over.

Kitchen waste should be either co-composted with green waste using in-vessel composting technology or processed through anaerobic digestion. Anaerobic digestion as used in Europe is more than 85% energy efficient, (by comparison, electricity production through EfW is less than 27%). The biogas generated could be used in transport systems. Connex run the largest fleet of biogas buses in Sweden.

On 8th April 2008, the Environment Agency and WRAP released their joint consultation on the Quality Protocol for Anaerobic Digestate. The AD Protocol forms part of the waste Protocols Project for composts, food oils and plastics. Each protocol defines the point at which a material ceases to be a waste and instead becomes a product.

Whole digestate, separated liquor and separated fibre derived from source segregated biodegradable materials under the BSI PAS 110 standard will be able to be used in agriculture and soil grown horticulture, forestry and land restoration.

The UK government is working closely with the National Farmers Union and major supermarkets to encourage the use of AD products on agricultural land.

The Environment Scrutiny Panel concurs with Juniper that there should be a move away from mass-burn incineration towards source separation and, in relation to the residual fraction, a combination of a simple fuel preparation/sanitisation process and a far smaller EfW using modular, small-scale technologies.

This combination of increased recycling and appropriate treatment of each waste stream has several advantages –

- Environmentally, it ensures that a much higher percentage of the value of our waste is put to good use.
- Carbon emissions are greatly reduced by limiting the amount of material that needs to be burnt.
- The technologies involved do not require large structures or buildings and can be accommodated within our built environment more easily.
- The enormous capital cost of a large incinerator is avoided and replaced by a number of smaller capital projects.
- Not only does this provide more flexibility for funding in the short term, it also produces major advantages by spreading the cost of replacement technology in the future.
- The combination of separate technologies provides a more robust solution which is flexible in its response to ongoing changes in waste legislation.

The technologies involved in the Panel's recommendation are available "off-the-shelf" and can be procured individually or as part of a package. Whereas the proposed EfW plant will take up to 3 years to build and commission, these technologies can be up and running in a much shorter timeframe.

In-vessel composting equipment to deal with both green waste and kitchen waste will have a capital cost in the order of £4 million.

Anaerobic digestion plant to deal with food waste will have a capital cost in the order of £6 million.

A Materials Recycling Facility will have a capital cost in the order of £5 million.

The capital costs of the residual treatment facility in the order of £20 million to£30 million.

Alternatively, if these technologies are procured as a “package”, the total cost will be in the order of £35 million.

**APPENDIX**

**Extract from:**

**ENVIRONMENT SCRUTINY PANEL: INDEPENDENT REVIEW – PLANNED INFRASTRUCTURE FOR IMPLEMENTING THE ISLAND'S WASTE STRATEGY**