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## PANEL MEMBERSHIP

The Shadow Scrutiny function was established by the States of Jersey as part of the reforms of the Machinery of Government. The principles and guidelines of Shadow Scrutiny in Jersey are set in the report and proposition of the Privileges and Procedures Committee P.186/2003, adopted by the States on 27th January 2004.

Senator E.P. Vibert was appointed as Chairman of one of the Shadow Scrutiny Panels. However, the Panel decided that, for the purposes of each member gaining experience in the shadow process, members would assume different rôles for each review.

For the purpose of this review, the Panel agreed that it would be constituted as follows -

Deputy P.J. Rondel (Review Chairman)
Deputy R.C. Duhamel (Lead Member)
Senator J.A Le Maistre
Senator E.P. Vibert
Deputy F.J. Hill, B.E.M.
Deputy G.C. Baudains

Officer support: Mrs C. Le Quesne and Mrs. K. Tremellen-Frost, Scrutiny Officers.

# **OPENING STATEMENT**

The Scrutiny Panel began its initial investigations by considering the Environment and Public Services Committee's draft consultation document entitled "Dealing with Jersey's Waste" dated September 2004. That document is a summary of a report issued by the Environment and Public Services Committee's consultants Babtie Fichtner entitled "Draft Solid Waste Strategy" dated 13th September 2004 which is available on the States of Jersey Website at <a href="www.gov.je/wastestrategy">www.gov.je/wastestrategy</a> and the States of Jersey Scrutiny Website at <a href="www.statesassembly.gov.je">www.gov.je/wastestrategy</a> and the States of Jersey

The Panel drew up the following Terms of Reference -

To review the current position in regard to strategic and other policy proposals in respect of the Plan.

To scrutinize alternative waste strategies and technologies.

To assess the cost and resource implications of a range of strategies within the waste hierarchy.

To understand the strategic and policy decision making process under which the States, Departments and Committees have operated in formulating the Plan.

To report on the outcome of the public consultation exercise.

To make recommendations to the appropriate Committees and/or the States.

The Panel presented an Interim Report to the States on 25th January 2005 which stated that the Panel had been unprepared for the discovery that little background work had been undertaken by successive Public Services and Environment and Public Services Committees. The additional work which arose from this has been extremely time-consuming and necessitated extensive research from a wide number of sources in order to gain knowledge of the many influencing factors and the availability of technologies. This background has been essential to provide a robust evidence-based report.

To carry out this necessary additional work, the Panel has undertaken in-depth research into developments which have occurred during a succession of Public Services Committees and latterly, Environment and Public Services Committees. This has included the existence and implications of International Export Agreements, (Basel Convention) and the Panel sought to clarify the existing Covenant on Bellozanne.

From this background work, there was a natural and essential progression for the Panel to consider possible options which might be available to the Island for a robust Waste Management Strategy to serve the Island's community.

The Panel also engaged the following advisers whose knowledge and expertise has been invaluable:-

Professor J. Swithenbank, B.Sc., Ph.D., EEng., FInst.E., FICh.E - Chartered Engineer, Director of Sheffield University Waste Incineration Centre

("Note: During December 2004, the Panel was advised that Professor Swithenbank had become

Chairman of SELCHP (South East London Combined Heat and Power) which is owned by a consortium including two of the London Local Authorities and three industrial Companies, only one of which is ONYX. The appointment was designed to provide an independent balance between the various interests.")

Professor P. C. Coggins, BSc., PhD., FCIWM., FRGS (with IBG)

Furthermore, the Panel has exchanged information with the Chairman of the Panel of Inquiry into Guernsey Solid Waste Disposal, Advocate Roger Dadd and maintained awareness of the situation in Guernsey.

It is not within the remit of the Scrutiny Panel to make any decisions as to the appropriate selection of technology or to decide on the final Waste Management Strategy. That is for the Environment and Public Services Committee to produce for debate in the States of Jersey. However, it is within the Panel's remit, based on evidence gathered, to make recommendations to the Environment and Public Services Committee as to options which need more in-depth consideration prior to the Strategy being debated in the States.

The Panel recognises that due to the unexpected, far-reaching nature of its work, it has taken longer than was originally anticipated to produce this final report. However, the Panel strongly believes that it has been essential to undertake such work fully in order to consider all the evidence thoroughly and produce as detailed and robust a report as possible. Evidence has continued to be forthcoming throughout the production of the report which has proven that there remains outstanding work to be undertaken.

In that respect, the Panel reserves the right to consider the final Waste Management Strategy once it has been lodged "au Greffe".

It has been decided that, for the sake of completeness and public awareness, copies of presentations received from waste management companies and related information, where not too bulky, should be included as Appendices to this report.

All transcripts of public hearings, (with the exception of any in-camera hearings) and other details are available on the Scrutiny Website at http://www.statesassembly.gov.je/shadow. Hard copies can be made available upon request from the Scrutiny Office, States Building, Royal Square, St. Helier, JE1 1DD

# FINDINGS AND RECOMMENDATIONS

## 2008 DEADLINE

- 1. The Bellozanne incinerator comprises three separate streams, two forming part of the original installation and a third larger stream added in 1991.
- 2. The year 2008 has been set as a <u>target</u> date for closure of the incinerator by the Environment & Public Services Committee.
- 3. There is no clarity as to whether this refers to two streams only or the entire plant. If it refers to the latter, there is no evidence which suggests that it is essential to close the third stream by 2008.
- 4. The Public Services Committee report and proposition P199/1996 states that the third stream at that time had at least a further 26 years of life. (Commissioned 1992, design life 30+ years)

Recommendation: The continued operation of the third stream should be considered as part of an interim solution to enable an improved overall waste management strategy in the longer term.

## **EMISSIONS**

- 1. Current working practices lead to inappropriate materials being included in the incinerator input stream. These materials contribute to the toxic loading of the emissions as well as reducing the efficiency of the plant.
- 2. In November 1996 the States of Jersey approved a proposition to bring emissions in line with European Union legislation. This was to be achieved by retrofitting a Flue Gas Treatment system. However funding requests at that time were denied. The Flue Gas Treatment system has never been installed.
- 3. The Panel found no evidence of monitoring of emissions since 1992. No action has been taken by the Health & Social Services Committee to encourage the Public Services Committee to review its working practices to improve emissions.
- 4. There is no evidence to suggest that if the life of the plant was prolonged for a short period beyond 2008, it would pose any serious threat to health.

Recommendation: Immediate steps should be taken by the Committee to develop policies and controls to ensure that inappropriate materials are excluded from the incinerator waste stream eg no more burning of TV sets and waste electrical and electronic equipment (WEEE), batteries, metals etc. The commercial and bulky waste stream should be sorted with separate bins for each waste type.

# EXPORT OF WASTE (Basel Convention)

- 1. The statement within the draft waste strategy by Environment and Public Services Committee, that waste cannot be exported because of international agreements is inaccurate and misleading.
- 2. It is possible to export recyclable waste from Jersey to other European Union countries. There is no requirement to obtain prior consent from the United Kingdom to do this.
- 3. The export of other waste streams for recovery is regulated but permissible.
- 4. The export of waste streams for disposal (eg landfill) is more strictly regulated.
- 5. The export of segregated waste streams has not been adequately considered.
- 6. The costs associated with the export of waste streams have not been fully quantified.

Recommendation: A broad review of the potential for export of segregated waste streams should be undertaken

## **QUANTITY & COMPOSITION OF WASTE ARISINGS**

- 1. Insufficient data has been kept on the quantity and composition of household and commercial waste delivered to Bellozanne. This data is essential to the preparation of a comprehensive waste management strategy.
- 2. The assumption that waste arisings will increase by 3% year on year is not confirmed by the figures produced for 2004 by the Statistics Department which showed a decrease of 5.5% on the previous year. The peak in arisings previously influenced by the Tourism Industry is no longer as pronounced and this is understandable given the reduced number of staying guests.

Recommendation: Environment and Public Services Committee policies should be amended to allow for simple collection of data required. It is standard practice in France and Norway to require commercial and bulky waste to be sorted by the deliverer into separate bins according to the waste type. This system should be quickly implemented to provide the data required at minimal cost.

Recommendation: The waste arisings projection should be reassessed in the light of the downturn in staying visitor numbers, the population demographics and the EU directive to reduce per capita arisings to 300kg per annum.

## **COLLECTION & RECYCLING**

- 1. Despite acknowledgement by the Environment and Public Services Committee of the importance of recycling in any waste management strategy the proposals for recycling in the draft strategy are limited and the targets well below European best practice
- 2. In particular the draft strategy suggests that kerbside collection services are essential for recycling initiatives to reach their full potential, but insufficient effort has been made to secure such improvements at this time
- 3. Viable technologies exist to treat kitchen waste in ways which return the organic matter to the land.

Recommendation: Much more should be done to encourage the community to reduce, re-use and recycle materials in order to minimise the quantity of waste requiring further treatment or disposal. This would require a vigorous education campaign.

Recommendation: The Parishes should implement a kerbside collection service of dry recyclables immediately and kitchen waste at the earliest opportunity.

Recommendation: As far as possible biodegradable material should not be burned and alternative methods of managing such waste in order to return organic components back into the land should be actively pursued as a matter of urgency.

## **ALTERNATIVE TECHNOLOGIES**

- 1. Since 2000 the pace of change in the waste management field has increased dramatically with new technology emerging.
- 2. The Panel has received considerable interest from organisations involved in alternative waste management solutions.
- 3. The modular nature of these technologies provides a more flexible approach to waste management allowing units to be added or subtracted as waste volumes change. Units are factory built and construction time is shorter than for conventional incinerators. Capital costs are much lower. Multiple units reduce the impact of overall downtime.
- 4. The United Kingdom government is organising a showcase of demonstration alternative technology plants over the next two years for local authorities to prove the operational viability of these plants in the United Kingdom.

Recommendation: An interim solution for Jersey's waste situation should be sought to enable advantage to be taken of one or more of these technologies.

## **SYNERGIES**

- 1. The draft strategy fails to recognise the advantages of integration of a number of waste management options.
- 2. Short term export could be used to provide the opportunity of closing Bellozanne for refurbishment or retrofitting of Flue Gas Treatment to the third stream, which otherwise would be expensive and operationally difficult to achieve. Likewise an interim solution which combined export with the running of the third stream for a period would allow time for alternative technologies to mature.
- 3. High recycling rates which reduce the overall residual component of the waste stream would allow the introduction of smaller modular end treatment plant with lower capital and operational costs and increased flexibility.
- 4. Working with the other Channel Islands could allow recycling markets to be developed in line with economies of scale. Instead of redundant capacity in two separate plants, each island could be designed as the backup for the other.
- 5. Conversely opting for a fixed size conventional Energy from Waste plant which needs an 85% load to run efficiently would commit the Island to produce a supply of waste which could only be treated for the 25 year life of the plant in one way. Reduction and recycling initiatives would take second place.

Recommendation: The waste strategy should recognise the advantages of integration of a number of waste management options in its proposals.

# OFFICIAL JOURNAL OF THE EUROPEAN COMMUNITY (OJEC) NOTICE

- 1. The Island is not bound to use the Official Journal of the European Community notice procurement method.
- 2. The Official Journal of the European Community notice asking for expressions of interest from equipment suppliers was placed prior to the States considering and deciding upon a waste management strategy.
- 3. A procurement report written by Price Waterhouse Coopers in 2002 starts from the assumption that the States had decided to replace the existing equipment with a new Energy from Waste plant.
- 4. The Official Journal of the European Community notice was drafted in a manner which excluded expressions of interest from waste management operators and had the effect of deterring many of the alternative technology companies from applying.

Recommendation: States Departments should only initiate official procurement processes for major projects under the authority of an explicit States decision or agreed

strategy and with requisite funding in place.

Recommendation: The Official Journal of the European Community process should be suspended pending approval of a waste strategy by the States.

#### **BELLOZANNE COVENANT**

- 1. Without a resolution of the Bellozanne Covenant issue it will be difficult to impose any form of user pays charge or environmental tax for waste disposal on the residents of St Helier.
- 2. The cost of removing the Covenant has not been established and could be extremely expensive.
- 3. The decision to accept a proposal to remove the covenant rests with the Parish Assembly.

Recommendation: The States must be fully apprised of all costs associated with buying out the covenant and the implications on funding and user charging if the covenant is not removed.

#### **GUERNSEY**

- 1. Although there have been some discussions with Guernsey dating back to 1999, the possibility of working together with Guernsey has only recently been addressed.
- 2. A feasibility study of a joint Channel Island Energy from Waste plant of conventional design was recently released. However the report did not consider the use of alternative technology or at reducing the residual waste through intensive recycling.
- 3. There has been little, if any, co-operation with Guernsey into researching the development of freight options for exporting waste to France.

Recommendation: More work needs to be undertaken in developing inter-Island initiatives in recycling, export or treatment of waste where mutual benefit might accrue.

#### **FUNDING**

- 1. Insufficient attention has been given to a funding structure since it was decided that a replacement for the Bellozanne incinerator was required.
- 2. The draft strategy suggests that the project should be funded from the capital

program but no allocation or application for funding has yet been made in the current five year plan (2005 –2009).

- 3. The "user-pays" principle is beset with difficulties due to the terms of the Bellozanne Covenant.
- 4. Despite interest on behalf of waste management operators in bidding for a complete waste management service to include collection, recycling and disposal, an early decision was taken to exclude this option due to perceived problems that this would cause with Parish and manual workers.
- 5. Alternative technology providers have expressed interest in public/private partnerships to showcase their technology at a reduced capital cost.

Recommendation: Major items of infrastructure must be accounted for in such a way that replacement funds are set aside over the lifetime of the asset.

Recommendation: The cost of the waste strategy could make a substantial impact on the capital program and must be reconciled within the current financial environment.

Recommendation: The Design Build (Fund) Operate procurement method or the use of a waste management operator should be re-examined as these options could provide infrastructure at little or no capital cost to the Island. Operational efficiencies could be achieved in this way.

Recommendation: Public/private partnership procurement initiatives should be explored.

#### PARISH INVOLVEMENT

- 1. Parish Authorities are key providers of the waste collection system and have been insufficiently involved by successive Public Services and Environment and Public Services Committees in formulating a key part of the draft waste strategy.
- 2. Very recent involvement has taken place since the intervention of the Scrutiny Panel.

Recommendation: Full consultation should be undertaken with the Parish Authorities to investigate a means of improving 'bring' systems in each of the Parishes, encouragement of the householder to re-use and recycle and an improvement of kerbside collections.

#### PUBLIC INVOLVEMENT

1. There has been insufficient consultation with the public in the development of the draft Strategy.

2. There has been insufficient consultation with other organisations and businesses in the development of the draft Strategy.

Recommendation: An ongoing dialogue should be initiated with all stakeholder groups as the waste strategy is developed to foster and encourage, educate and involve all sectors of the community in responsible waste practices.

#### **PROCESS**

1. The process has been subjected to a large number of Committee membership changes since 1990. This cannot have assisted in the development of Strategic documents.

## **WORKING GROUPS**

- 1. A number of working groups have been established since 1998, some of which appear to have dissipated, others of which appear never to have met and the most recent group has held five meetings between its formation in 2003 to the end of 2004.
- 2. The Groups have all lacked people with a breadth of professional and technical expertise in alternative waste management technologies.

Recommendation: In any matters of a highly technical content, there should be an "expert" group from the outset. In the case of Waste Management an excellent example of this is the composition of the Panel of Inquiry into the Future of Solid Waste Disposal in Guernsey.

#### WASTE MANAGEMENT STRATEGY

- 1. As the Environment and Public Services Committee has been unable to provide a detailed analysis of all the options available, it has been necessary for the Scrutiny Panel to undertake its own research into a range of options and technologies. Considering the importance of such a major project and the long-term implications for the Island, the Panel is extremely concerned that there is insufficient information available to States Members and the Public, to enable a sound decision to be made.
- 2. Insufficient work has been undertaken by the Environment and Public Services Committee into various issues such as export, alternative technologies, joint initiatives with Guernsey and consultation with the Parishes.

Recommendation: There should be no debate of the Waste Management Strategy until

the options within this Scrutiny Report have been fully researched with results m public, and a proper consultation exercise with all stakeholders undertaken.									

# **SECTION 1: 2008 DEADLINE**

# Findings:

- 1. The Bellozanne incinerator comprises three separate streams, two forming part of the original installation and a third larger stream added in 1991.
- 2. The year 2008 has been set as a <u>target</u> date for closure of the incinerator by the Environment & Public Services Committee.
- 3. There is no clarity as to whether this refers to two streams only or the entire plant. If it refers to the latter, there is no evidence which suggests that it is essential to close the third stream by 2008.
- 4. The Public Services Committee report and proposition P199/1996 states that the third stream at that time had at least a further 26 years of life. (Commissioned 1992, design life 30+ years)

Recommendation: The continued operation of the third stream should be considered as part of an interim solution to enable an improved overall waste management strategy in the longer term.

From the outset of the Scrutiny Review, the Panel has received a large number of suggestions stating that the deadline for the replacement of the incinerator is 2008. Such statements as "The largest single issue will be the replacement for the existing Energy from Waste plant at Bellozanne. This has to be progressed urgently as the old plant must be replaced by 2008" puts a particular emphasis on the year 2008. Whilst the Panel accepts that it is important to have a target date for the plant's closure, other dates had also come forward in evidence.

For example, the Carl Bro report dated April 2000 states that at some stage over the next 5 to 10 years the incineration units at Bellozanne will need to be replaced by a modern and more energy-efficient plant (ie: between 2005 and 2010). That report also states that the third stream which was commissioned in 1991 should have a substantially greater life, perhaps 10 to 20 years. (ie: 2010 to 2020). This, in conjunction with other evidence relating to dates such as "..the new plant would become operational in about 2007" and "It is realistic to expect that with reasonable maintenance the existing plant could continue until this date (2006/2007) and process the projected waste arisings" gave rise to the Panel investigating the reason for this date. The former President of the Environment and Public Services Committee, at the first meeting of the Waste Strategy Steering Group held on 25th July 2003, is recorded as having stated that the new Energy from Waste plant had to be commissioned by the 1st January 2009".

In evidence received from the Public Services Department, the Panel was made aware of a number of areas that are of major concern to the Department as operators of the plant. The Panel was appraised that the recommendation that the plant would need to be replaced by 2008 was taken by the professionals operating the plant and both sets of consultants who had been employed to undertake the review of the waste strategy and the technical evaluation of the facility. Further to this the President

of the Environment and Public Services Committee acknowledged that the Committee had set 2008 as a <u>target</u> date of the replacement of the plant, based on the investigations and reports which had been undertaken.

Consequently the 2008 deadline has been taken by other States members and organisations as a "given". This was confirmed in oral evidence from the Jersey Environment Forum and the Chairman of the Comité des Connétables.

With the foregoing in mind, the Panel considered the following two statements given in oral evidence by, respectively, the President Environment and Public Services Committee and the President, Health and Social Services: -

"We can carry on being diverted on alternatives, but we can't duck the decision, put the decision off in Jersey and let the plant go on. Frankly, it is a decision that should be made for 2008"

"So if I were to be persuaded that any delay was to be acceptable in terms of shutting down that incinerator, I would need some very robust evidence that there was in fact a realistic, viable, alternative way of dealing with our waste on the horizon".

The Panel believes that consideration of alternative technologies is not a "diversion" but an essential part of the formulation of an overall Waste Strategy. It believes that this work should have been undertaken more fully by successive Committees in order to keep abreast with developing technologies, but unfortunately this has not been the case. It is the duty and responsibility, therefore, of the incumbent Environment and Public Services Committee to undertake this work in investigating whether there are technologies which fulfil the criteria in the above quote from the President of the Health and Social Services Committee.

Furthermore, in the Environment and Public Services Committee's draft Strategy <sup>[7]</sup>it states that "maintenance costs are increasing dramatically" and that "to try to extend its life beyond 2008 by upgrading it would be very costly..." The Panel has no evidence that these statements can be substantiated by fact.

# **SECTION 2: EMISSIONS**

# Findings:

- 1. Current working practices lead to inappropriate materials being included in the incinerator input stream. These materials contribute to the toxic loading of the emissions as well as reducing the efficiency of the plant.
- 2. In November 1996 the States of Jersey approved a proposition to bring emissions in line with European Union legislation. This was to be achieved by retrofitting a Flue Gas Treatment system. However funding requests at that time were denied. The Flue Gas Treatment system has never been installed.
- 3. The Panel found no evidence of monitoring of emissions since 1992. No action has been taken by the Health & Social Services Committee to encourage the Public Services Committee to review its working practices to improve emissions.
- 4. There is no evidence to suggest that if the life of the plant was prolonged for a short period beyond 2008, it would pose any serious threat to health.

Recommendation: Immediate steps should be taken by the Committee to develop policies and controls to ensure that inappropriate materials are excluded from the incinerator waste stream eg no more burning of TV sets and waste electrical and electronic equipment (WEEE), batteries, metals etc. The commercial and bulky waste stream should be sorted with separate bins for each waste type.

Concern about the emissions emanating from the Bellozanne chimney is high. The President, Health and Social Services Committee, in giving oral evidence to the Panel stated: -

"What I do need to emphasise is that there is no escaping the fact that the existing incinerator is a human health threat. It's toxic, it's polluting and it should have been shut down 11 years ago."

However, oral evidence received from the Assistant Director, Health Protection on 10th January 2005 did not fully support this. Whilst he recognised that the incinerator emitted a lot of toxic materials which are known to be cancerous, it was important to be able to prove that these emissions caused a nuisance or were prejudicial to health. Advice on the matter was taken from Professor J. Swithenbank, one of the Panel's Advisers who stated:-

"If I take dioxins, that plant is the worse I know in Europe on dioxin emissions. But at the same time, if you look at the dioxin emissions from all the plants in the UK, all the incinerator plants only contribute 1% of the total dioxins in the UK.... I would doubt if you could identify any health effects from the existing plant. I am not defending it. It needs to come down and there needs to be a new plant but I don't think you would find or you could identify health effects from the present plant".

The Panel is pleased to note that a current study is underway to investigate the present toxicity and pollution levels of the emissions from the existing plant.

# **SECTION 3: EXPORT OF WASTE (Basel Convention)**

# Findings:

- 1. The statement within the draft waste strategy by Environment and Public Services Committee, that waste cannot be exported because of international agreements is inaccurate and misleading.
- 2. It is possible to export recyclable waste from Jersey to other European Union countries. There is no requirement to obtain prior consent from the United Kingdom to do this.
- 3. The export of other waste streams for recovery is regulated but permissible.
- 4. The export of waste streams for disposal (eg landfill) is more strictly regulated.
- 5. The export of segregated waste streams has not been adequately considered.
- 6. The costs associated with the export of waste streams have not been fully quantified.

Recommendation: A broad review of the potential for export of segregated waste streams should be undertaken.

From the outset of its review the Panel wished to explore every available avenue and alternative means of dealing with the Island's waste. This included an investigation into the export of waste in whatever form, be that for recyclable or residual waste. It must be made clear that such an investigation does not mean that the Panel favoured shipping the entire Island's waste to France for infill.

The Panel sought legal advice about this matter and believes that no permission is required to export recyclable waste, such as cardboard, newspaper, metal, plastic, rubber tyres, to France.

The Basel Convention has received consideration since 2000 when Carl Bro in its April 2000 report commented:-

"Being a non-member of the EU, Jersey has a Memorandum of Understanding with the UK to export certain classified waste (eg hazardous waste) for treatment. The Memorandum is awarded annually, but renewal is considered unlikely after 2001 unless some form of legislation controlling waste is enacted by the States of Jersey. The implementation of new laws will help to control the management of waste, but precisely what action must be taken to renew the Memorandum of Understanding and to become party to the Basel Convention, needs to be determined in discussion with the Competent Body for the respective EU member states to which Jersey exports its waste (EG Environment Agency in England and Wales)"

The Waste Management Law legislation was approved by the States in 2004 and Privy Council approval is expected soon. Negotiations have been ongoing and recently Public Services Department officers discussed the legal issues with the UK Authorities.

Although the Environment and Public Services Committee consultation document "Dealing with Jersey's Waste" states categorically "We cannot export the waste because of international agreements....", the Panel notes that the President of the Environment and Public Services Committee in giving evidence to the Panel stated that his Committee would be reinvestigating the situation:-

"On the issue of export, the report is clear in terms of our ... and I don't deny this, that the report is predicated and written on the basis that you cannot export biodegradable waste from the Island, and that is the advice that the Island has. Sorry, that is the advice that my Department and my Committee has had from its various different advisers. I am aware that this question is being raised again. I am advised that there are some differences in terms of the way that the Basle Convention can be interpreted and I have asked the Department to provide the Committee with an update report on the situation of export or not. We maintain and we don't think, and the advice that I have is that we don't think that it is possible, but I'm willing to look at this issue again because clearly it is an important, important starting factor. We remain sceptical of the ability, of the permissibility of exporting Island waste. Moreover, we are also concerned with the operational difficulties that that would be the case. Even if you could export Jersey waste, even if you could export waste under law, it wouldn't necessarily still be the right decision for Jersey for operational reasons."

The Panel remains unclear as to what the "operational reasons" are and on what evidence the President is basing his decision that it would not be the right decision for Jersey to export waste. It believes that the President may consider export of waste to encompass all waste generated by the Island community. This may be an option that should be considered but it might alternatively mean export of different types of waste in different forms.

However, in considering export, the President made it clear that he would be doing this to seek an alternative to building a plant on the Island [9]. The Panel is concerned that the Environment and Public Services Committee is closed to investigating the various options of exporting waste, for example, exporting recyclables to reduce the need for a large incineration plant.

The Société Jersiaise in its oral evidence commented:-

"I have been in touch with Brussels and DEFRA to ask the question, that this policy has dismissed exports as not being feasible or possible and they both came back with very similar answers that, with a bilateral agreement, it might be possible. So, again, whether the economics of export stack up is another issue, but, again, is it a question we should be addressing or exploring in more detail than has been done by their strategy so far?"

One of the Panel's Advisers, Professor C. Coggins advised the Panel that in recent years Jersey had been able to totally control its waste management. If the waste were to be shipped out an element of control would be lost and this is a risk which would need consideration.

He also advised that waste could be placed into three categories. This is summarised below, however, the full paper is reproduced in Appendix 1.

"The Basel Convention provided a three-fold sub-division of wastes for export, covered in Europe by Council Regulation (EEC) No. 259/93 on the supervision of shipments within, into and out of the European Community (the Waste Shipments Regulation), and applied directly in the UK as The Transfrontier Shipment of Waste Regulations 1994 S. I. No. 1137:-

requiring only normal documentation, e.g. kerbside collected recyclables as shipments of homogenous loads (e.g. paper and card, uncontaminated by other waste types).

Amber (Annex III): hazardous wastes. Includes municipal/household waste, and mixed kerbside collections (paper and card, plastics and metal cans) = Article 15controls.

Red (Annex IV): hazardous wastes. Exports prohibited to non-OECD countries.

Movements of both amber and red list wastes must be

via prior informed consent of the authorities of dispatch, destination and transit.

applications using a Notification/Movement Tracking form must be completed and notified to the Environment Agency as the competent authority of dispatch in the UK (with copies to be provided to the competent authority of destination and to any states the waste will transit on route to its destination).

shipments may only progress once the Environment Agency has given written consent, with consignment notes containing prescribed information,

contracts between the exporter and processor and shipments have to be covered by a financial guarantee.

the exporter must provide evidence that the recovery operation is environmentally sound.

see Annex 4 for case studies."

The Panel received evidence that off-Island companies would be prepared to look at signing the necessary agreements for the export of various forms of Jersey's waste.

The President of the Finance and Economics Committee stated: -

"You can also spend a lot of time going down dead ends and if at the end of the day the opportunity for exporting waste is effectively a dead end, then you can spend a whole lot of time just looking at ways of improving shipping costs to no great benefit. So I think you have to have a reasonable expectation that you could, both in terms of environmental standards and commercially and responsibly ship waste off the Island."

The Panel, however, maintains that rejection of export has limited consideration of viable options by the Environment and Public Services Committee that should have been explored prior to the release of the draft Waste Strategy. It is, therefore pleased that the President of the Policy and Resources Committee has committed to undertaking a thorough investigation of the Basel Convention and that findings will be published when available. It also concurs with that President that the critical phrase is "cost effective" but questions how the cost effectiveness can be ascertained if one's mind is closed to investigating the export option.

# SECTION 4: QUANTITY & COMPOSITION OF WASTE ARISINGS

# Findings:

- 1. Insufficient data has been kept on the quantity and composition of household and commercial waste delivered to Bellozanne. This data is essential to the preparation of a comprehensive waste management strategy.
- 2. The assumption that waste arisings will increase by 3% year on year is not confirmed by the figures produced for 2004 by the Statistics Department which showed a decrease of 5.5% on the previous year. The peak in arisings previously influenced by the Tourism Industry is no longer as pronounced and this is understandable given the reduced number of staying guests.

Recommendation: Environment and Public Services Committee policies should be amended to allow for simple collection of data required. It is standard practice in France and Norway to require commercial and bulky waste to be sorted by the deliverer into separate bins according to the waste type. This system should be quickly implemented to provide the data required at minimal cost.

Recommendation: The waste arisings projection should be reassessed in the light of the downturn in staying visitor numbers, the population demographics and the EU directive to reduce per capita arisings to 300kg per annum.

The Panel has frequently requested data from the Environment and Public Services Committee regarding the total breakdown of the Island's solid waste in percentage terms and has been informed

that a detailed survey of the Island's waste has not yet been carried out [10]. The President of the Environment and Public Services Committee has informed the Panel in writing that it is considered that the typical analyses from the UK, along with the analyses carried out by Carl Bro and by Babtie Fichtner are sufficiently similar to allow Jersey's waste to be analysed for the present purposes. The Panel find it inconceivable that a draft Waste Strategy has been produced without prior assimilation of all relevant data and that reliance on a review undertaken in 2000 followed by another by Babtie Fichtner is inappropriate and may be misleading.

Professor Coggins, giving oral evidence in his capacity as Panel Adviser on being asked whether the statistics available were satisfactory to make a judgement, replied an emphatic "My professional view would be no". Furthermore he advised the Panel that in September 2004 the United Kingdom government had launched a consultation paper for a three year data strategy, recognising the need that data for all waste streams needed to be collected in a systematic, regular way across the UK. He further advised that local authorities in the United Kingdom spent a lot of effort and money putting such data together.

The Panel was informed by the President of the Environment and Public Services Committee that it was extremely difficult [11] to make a direct comparison between Jersey and the UK figures tonne for tonne between commercial, domestic, construction and demolition because the waste collection service

in Jersey mixes commercial and domestic. Notwithstanding this, the representative of Babtie Fichtner advised the Panel that he believed that the existing level of data was sufficient for the recommendations in the draft Strategy [12]. He also added that more data would be needed if there were to be substantial plastic and aluminium recycling but it was an inappropriate time to undertake this and it would be expensive. However, a Babtie Fichtner report dated 2001 states that the deliverable waste strategy would need improved data collection to size new facilities and monitor progress towards diversion targets and better correlation of development trends to aid waste arising predictions.

The President, Environment and Public Services Committee stated at a Scrutiny Public hearing: -

"But nothing ducks from the issue, nothing shirks from the unshakeable reality that there is a very significant amount of tonnes of material that are still to be dealt with after you have carried out your most stringent and high targets of recycling and reuse. That residual amount of waste is certainly in excess of 60,000 tonnes and rising compared to or dependent on how successful recycling and reuse is.

The Panel has no evidence to support the fact that the residual amount of waste after the "most stringent and high targets of recycling and reuse" would be in excess of 60,000 tonnes or even near that figure.

# SECTION 5: COLLECTION & RECYCLING

## Findings:

- 1. Despite acknowledgement by the Environment and Public Services Committee of the importance of recycling in any waste management strategy the proposals for recycling in the draft strategy are limited and the targets well below European best practice.
- 2. In particular the draft strategy suggests that kerbside collection services are essential for recycling initiatives to reach their full potential, but insufficient effort has been made to secure such improvements at this time.
- 3. Viable technologies exist to treat kitchen waste in ways which return the organic matter to the land.

Recommendation: Much more should be done to encourage the community to reduce, re-use and recycle materials in order to minimise the quantity of waste requiring further treatment or disposal. This would require a vigorous education campaign.

Recommendation: The Parishes should implement a kerbside collection service of dry recyclables immediately and kitchen waste at the earliest opportunity.

Recommendation: As far as possible biodegradable material should not be burned and alternative methods of managing such waste in order to return organic components back into the land should be actively pursued as a matter of urgency.

The Panel has evidence that 10 years ago, in 1995 there was a greater political interest and understanding regarding the benefits of waste minimisation than there is today and a Public Services Committee Act of 1995 states:-

"The Committee was mindful that success in this field [waste minimisation] could achieve major capital savings for the Island if the need for an additional or a replacement incinerator could be obviated."

In the report by Carl Bro dated April 2000, whilst recommending that incineration continued to be the preferred energy from waste process in the future, that "bespoke aspirational recycling targets should be formulated in Jersey." It recommended the introduction of an Environmental Management System to help further reinforce the commitment to waste minimisation. This supported one of the Island's key aims in Jersey's Environmental Charter;-

"to develop a waste management policy appropriate to Jersey including a policy of waste minimisation, a commitment to recycling and the consideration of subsidies to ensure that recyclable material is removed from the waste stream."

Whilst an Environmental Management System would require funds in the short-term it was believed that these costs would be far outweighed by long-term benefits to the island. The Panel has received no evidence that an Environmental Management System was ever established.

Evidence received states that Babtie Fichtner at the time of appointment was one of the two or three lead European Consultants in Energy from Waste plants. [13] They were appointed following concerns that the Carl Bro report did not contain sufficiently detailed information about developing technologies such as anaerobic digestion and recycling initiatives. With the latter in mind, the Panel was surprised to receive evidence in the Management Summary of the Babtie Fichtner report June 2001 that Babtie Fichtner believed that "there is limited potential for Jersey to minimise its waste" and that "there is very limited potential for Jersey to reuse its waste and whilst initiatives are to be encouraged, it is unlikely to have any substantial impact".

In the same report Babtie Fichtner also stated:-

"The most reliable and proven technique for the disposal of waste after achievable recycling and composting has taken place is by use of a mass burn incinerator. Waste projections indicate that in 2015 the actual amount of waste for incineration could vary between 90,000 and 125,000 tonnes per annum."

In its subsequent report of September 2001, Babtie Fichtner states that there will be a significant residual non-inert waste quantity for disposal (greater than 80,000tpa) whatever minimisation or recycling alternatives are put into place and that any recycling options mentioned within its report were considered achievable in Jersey but would require political will and expenditure to succeed.

However, the Public Services Committee of the day appeared interested, if not necessarily committed to waste minimisation. A Minute dated 1st November 2001 of the Comité des Connétables reads:-

"Mr Richardson outlined the waste growth predictions, waste hierarchy [minimisation, reuse, recycle, recovery and landfill] recovery alternatives and energy from waste plant. In the long term he hoped there would be more recycling sites and drop off/recycle centres for waste. Housing development also had an impact on the quantity of waste produced. The current systems of collection had a limit of capacity and it was likely that a complete review of household collection would be proposed. Source segregation and collection at household level was required [such as the current glass collection] and more initiatives for 'bring' collections eg bottle banks. Sites would be required in the Parishes for such schemes and to avoid fly tipping. Recycling options identified 21% of waste could be recycled as a baseline, 30% was feasible and 48% was the maximum possible but only if advanced levels of recycling were achieved this was unlikely in practice."

It appeared that the Environment and Public Services Committee in 2002 was genuinely aiming at increasing the level of waste minimisation by taking the proactive move of appointing a recycling officer whose rôle it would be to develop new initiatives to promote waste minimisation and recycling. In fact the President of the Committee in 2003, Deputy M. F. Dubras, endorsed such initiatives at the first meeting of the Waste Strategy Steering Group on 25th July 2003 and stated:-

"There would have to be a consultative process which would involve discussion of all issues such as waste minimisation, recycling. Collection of waste and that there would be an attitude shift required. Recycling being achieved was better than most people thought but targets needed to increase.....The objectives were to meet international best practice and all options should be investigated".

However, this was countered by the Fichtner consultants remark that "If Jersey went for a low capacity Energy from Waste plant and high recycling targets and was then unable to achieve the recycling targets it would have no fallback position whereas the UK had the fallback of landfill."

In April 2004, the Environment and Public Services Committee Policy Sub-Committee was advised that

the technology which underpinned such plants [Energy from Waste] had effectively remained static since the beginning of the decade. [14]

Evidence received in a Scrutiny public hearing from the Chief Executive Officer stated:-

"If we are realistically going to make things change in Jersey then we have to engage the public. As we move down that hierarchy--and sorry, that is going to take time, we are not just going to do that overnight, it is going to take some period of time to get children and to get families to change -- in the terms of the first 25 year strategy, I think we are looking at five to ten years to actually change attitudes, change the collection service and really build the recycling element up".

The Panel believes that this view is negative and not the experience of authorities that have aggressively pursued recycling policies. It certainly does not fulfil the "bespoke aspirational recycling targets should be formulated in Jersey" stated in the Carl Bro report five years ago in April 2000.

#### The President of the Health and Social Services Committee stated:-

"I think that, from a human health point of view, the minimisation of waste that has to ultimately go to disposal is of course better. If you can minimise the amount of waste society produces and then re-use and recycle, then clearly that is going to have less of a health impact than the disposal mechanism, the ultimate disposal mechanisms. I think that is clear ... but nevertheless, having said that, I still think it is fair to say that the recycling ambitions for the Island are not sufficiently high"

# SECTION 6: ALTERNATIVE TECHNOLOGIES

# Findings:

- 3. Since 2000 the pace of change in the waste management field has increased dramatically with new technology emerging.
- 4. The Panel has received considerable interest from organisations involved in alternative waste management solutions.
- 3. The modular nature of these technologies provides a more flexible approach to waste management allowing units to be added or subtracted as waste volumes change. Units are factory built and construction time is shorter than for conventional incinerators. Capital costs are much lower. Multiple units reduce the impact of overall downtime.
- 4. The United Kingdom government is organising a showcase of demonstration alternative technology plants over the next two years for local authorities to prove the operational viability of these plants in the United Kingdom.

Recommendation: An interim solution for Jersey's waste situation should be sought to enable advantage to be taken of one or more of these technologies.

The Panel has received a number of presentations from organisations involved in waste management from the UK, across France and throughout Europe and the world. It has also undertaken visits to areas of France and to Norway to see plants offering various technologies in operation.

The documentation assembled by the Panel is far too great to incorporate as Appendices to this report. However Appendix 2 lists all documentation considered including a list of Committee Acts and related minutes of other groups. If anyone is interested in viewing the full documentation it can be made available upon request through the Scrutiny Office..

The Panel has evidence that the outcome of a period of public consultation in 2001 showed concerns in the following areas -

Local impact from a bad neighbour plant
Insufficient emphasis on recycling and waste minimisation
Insufficient emphasis placed on looking into alternative technologies.
Methods of procurement of a new Energy from Waste plant
Other Bellozanne-related issues

Review of the Guernsey situation [15]

In mid 2002, the Public Services Committee was advised that there was a strong lobby from the alternative technology market including such technologies as gasification and pyrolysis. The Committee was advised that such technologies were not significantly advanced for their environmental impacts and detailed costs to be established.

The Panel was interested to learn of two funding programmes which have been launched by the Department for the Environment Food and Rural Affairs (DEFRA) as part of its Waste Implementation Programme; the New Technologies Demonstration Programme (NTDP) Appendix 3

The Demonstrator Programme will provide around £30 million to help to establish new waste treatment technologies that require pilot plants to demonstrate their viability. The programme is intended to help overcome the perceived risks of implementing new technologies in England and to provide accurate and impartial technical, environmental and economic data.

The aim is to have five demonstration plants in operation by the end of 2005 and a further five by the end of 2006.

Professor Coggins in oral evidence to the Panel advised the following in respect of the programme:-

"Government in the UK. I think, became concerned about waste management in 2002. I think there are various elements which indicate the beginnings of a change. The Cabinet Office were asked to undertake a review of waste management. That became known as the Strategy Unit, and the report was published in December 2002. That report has 12 or 15 supplementary reports with it. Out of that documentation, DEFRA set up the Waste Implementation Programme and the New Technologies Programme. I have been a member of the Advisory Committee of that programme since November 2003. The details evolved over a period of time. The outline proposals were published in May 2003 and the committee was set up in November. What we have been dealing with is a programme called the Demonstrator Programme, which is £30 million, to promote demonstrator technologies for dealing with biodegradable waste. It excluded incineration; it excluded landfill; it excluded waste reduction, recycling and conventional composting; and focused on those technologies in the middle -- anaerobic digestion, complex material sorting, pyrolysis, gasification, autoclaving and certainly 15 months ago it was "and any others". Since then the "and any others" have begun to appear as one, particularly plasma arc technology for dealing with waste. The programme I think I have illustrated before. There were 17 plus expressions of interest for the demonstrator. There were 49 full applications. There were 17 interviewed and of those seven preferred bidders were put forward for potential funding. They didn't include autoclaving, but they included pyrolysis, gasification and a novel type of organic waste treatment. "

In view of the above, the Panel is concerned that the attitude of the President of the Environment and Public Services Committee is negative to alternative technologies considering them to be promoted b "travelling salesmen". He stated in oral evidence to the Panel:-

So I mean, I think Professor Coggins, at the Société Jersiaise said something about "beware of travelling salesmen", and I would be certainly wary of travelling salesmen who are wanting to take contracts for our waste."

To commence its investigation into alternative technologies for waste management, the Panel felt it was important to consider Recycled Refuse International (locally this has become known as the Haden-Taylor plant). The Panel was aware that the Public Services Committee had received a presentation on this technology in December 2001 and that various visits had been made to a plant located in Bridgend, South Wales during 2002. Unfortunately the plant had never been fully operational at the time of the visits and it was noted that the technology had not, at that time, been developed to the extent whereby it could process all forms of waste and landfill was required as a backup facility. [16]

Furthermore despite assurances to the Public Services Committee that further information relating to firm orders placed for the gasification plants would be forwarded, this was never received. From that time and up to late 2004, confidential developments occurred which the Panel cannot release due to their commercial sensitivity. However, there were no reference plants which could be viewed. This was

not in accordance with the terms of the Official Journal of the European Community notice.

The above facts may answer the surprise expressed by one of the representatives of the Société Jersiaise who when giving evidence stated: -

"We had in the Société a couple of years ago invited Dr Haden-Taylor to present the... well an open meeting it was. We found his system very convincing and were rather surprised that it didn't appear to find favour elsewhere."

Dr Haden-Taylor did attend on the Panel at a public hearing and he explained that the first plant had been built in 1994 near Sheffield followed by another in 1999 at Bridgend. On being asked whether he was able to produce evidence of having signed agreements with any countries for waste management projects he replied "Yes I can... in a matter of days". **That information has never been forthcoming.** 

On being asked if he had publicly approved data on waste inputs, autoclaving, fuel preparation for gasification, plus mass balances and energy balances, Dr Haden-Taylor replied "Yes, absolutely. I can provide you with a quantity of that." **This information also has not been forthcoming.** 

Dr Haden-Taylor summarised the operation in which he is involved as follows:-

"World class companies who are manufacturers of proven technology. We are packaging it with our own autoclave and steam boilers, which are, again bought in from major manufacturers of steam boilers. All the equipment is manufactured by the top 20 British companies, all with proven track records, all with long-standing service agreements and proven track records."

Furthermore, on being questioned as to what techniques Dr. Haden-Taylor used, the following dialogue at a public hearing was as follows:-

SENATOR VIBERT: The issue in Jersey is that your actual techniques are described as the Haden-Taylor system. It is not actually a Haden-Taylor system. DR HADEN-TAYLOR: No, it isn't.

SENATOR VIBERT: It is actually a conglomerate of a whole lot of technologies that you are going to pull together ----

DR HADEN-TAYLOR: Exactly.

The Panel feels that it is important to clarify that it was unable to find evidence of a "Haden-Taylor" system in operation given the lack of information forthcoming.

# **SECTION 7: SYNERGIES**

# Findings:

- 1. The draft strategy fails to recognise the advantages of integration of a number of waste management options.
- 2. Short term export could be used to provide the opportunity of closing Bellozanne for refurbishment or retrofitting of Flue Gas Treatment to the third stream, which otherwise would be expensive and operationally difficult to achieve. Likewise an interim solution which combined export with the running of the third stream for a period would allow time for alternative technologies to mature.
- 3. High recycling rates which reduce the overall residual component of the waste stream would allow the introduction of smaller modular end treatment plant with lower capital and operational costs and increased flexibility.
- 4. Working with the other Channel Islands could allow recycling markets to be developed in line with economies of scale. Instead of redundant capacity in two separate plants, each island could be designed as the backup for the other.
- 5. Conversely opting for a fixed size conventional Energy from Waste plant which needs an 85% load to run efficiently would commit the Island to produce a supply of waste which could only be treated for the 25 year life of the plant in one way. Reduction and recycling initiatives would take second place.

Recommendation: The waste strategy should recognise the advantages of integration of a number of waste management options in its proposals.

## Professor Coggins:

"It seems to me similar [Jersey's position] to the position that I saw in the UK 20yrs ago, where people in local authorities and in national government were engineers and they were looking at engineering solutions, whether that was through civil engineering and landfill or mechanical engineering in conventional mass burn incinerators. I think over the last 10 years that sort of person has become not necessarily in the minority but is certainly now balanced by a range of social scientists, geographers, economists, lawyers working in the waste field and bringing a waste management perspective as opposed to a technological perspective."

#### Jersey Environment Forum:

"The Island should try to minimise the production of waste, to recycle and compost as much as it can, to reduce the volume of residual waste and only the residual waste should be disposed of at the final stage and that that stage should be by the most environmentally benign method possible.....Looking at that graph, we came to the conclusion that if, as the draft Strategy says itself, we were to pursue advanced recycling, then we could probably achieve something in the order of 30% reduction in the volume of waste that would need to be finally disposed of and,

therefore, a commensurate reduction in the scale of the plant."

# **SECTION 8: OJEC NOTICE**

# Findings:

- 1. The Island is not bound to use the Official Journal of the European Community (OJEC) notice procurement method.
- 2. The Official Journal of the European Community notice asking for expressions of interest from equipment suppliers was placed prior to the States considering and deciding upon a waste management strategy.
- 3. A procurement report written by Price Waterhouse Coopers in 2002 starts from the assumption that the States had decided to replace the existing equipment with a new Energy from Waste plant.
- 4. The Official Journal of the European Community notice was drafted in a manner which excluded expressions of interest from waste management operators and had the effect of deterring many of the alternative technology companies from applying.

Recommendation: States Departments should only initiate official procurement processes for major projects under the authority of an explicit States decision or agreed strategy and with requisite funding in place.

Recommendation: The Official Journal of the European Community process should be suspended pending approval of a waste strategy by the States.

The Panel notes the decision of the Environment and Public Services Committee in July 2003 to proceed with the advertisement in the Official Journal of the European Community for Expressions of Interest to be sought without firstly taking a Waste Strategy to the States was agreed by the previous Public Services Committee in May 2002.

The original Official Journal of the European Community notice was:-

"11.2.1) Total quantity or scope (including all lots and options, if applicable)

The scope of work will be to supply equipment to replace the existing waste incinerator with a new facility(ies) to dispose of the entire non-inert waste arisings on the Island of Jersey. This includes municipal and commercial waste, shredded bulky items, tyres and dried sewage sludge. It is envisaged that the proposed solution will include an energy recovery plant. The Contractor should recognise that the Island has significant space and labour restrictions and no biodegradable landfill.

The Island already has recycling and composting facilities which are outside the scope of this work, which is for facilities to treat the residual waste stream.

The current quantity of non-inert residual waste for disposal is about 80,000 tonnes per annum. It is likely that this will increase to about 90,000 tonnes per annum by the time the new facility is in operation. Due to the lack of any alternative disposal facilities, it is essential that the proposed solution has significant back-up capacity to ensure that waste can always be processed."

The above Official Journal of the European Community notice was amended in 2003 and published as follows: -

### **"1) Total quantity or scope** (including all lots and options, if applicable)

The scope of work will be to supply equipment to replace the existing waste incinerator with a new facility(ies) to dispose of the entire non-inert waste arisings on the Island of Jersey. This includes municipal and commercial waste, shredded bulky items, tyres and dried sewage sludge. The proposed solution must provide secure routes for the disposal of all the waste, noting that there is no potential for landfilling biodegradable waste in Jersey or exporting waste for biodegradable processing. The Contractor should recognise that the Island has significant space and labour restrictions.

The Island already has recycling and composting facilities which are outside the scope of this work, which is for facilities to treat the residual waste stream. However, proposals that include recycling of parts of the residual waste which are economic and environmentally beneficial will be considered

The current quantity of non-inert residual waste for disposal is about 80,000 tonnes per annum. It is likely that this will increase to about 90,000 tonnes per annum by the time the new facility is in operation. Due to the lack of any alternative disposal facilities, it is essential that the proposed solution has significant back-up capacity to ensure that waste can always be processed.

"It is essential that the Contractor can offer a proven and reliable solution. The Contractor is requested to provide the following information to demonstrate this capability:

A description of the proposed solution for Jersey including proposed plant capacities and drawings showing plant footprints.

Operating records from at least two reference plants of a similar capacity to that proposed. The reference plants should process similar type of wastes. Details should be provided showing several years throughput at each reference plant, together with a contact at each plant.

A Reference list showing similar projects using the proposed solution(s) which have been successfully completed, showing client, location, type of waste, capacity of plant and date of completion.

Evidence that the Contractor can demonstrate compliance with UK (or equivalent) Health and Safety Regulations.

Evidence that the Contractor's proposed solution will comply with European Environmental Regulations and Best Practice.

Acceptance by the Contractor that the performance of the plant will be demonstrated against commercial process guarantees with consequential liquidated damages.

The Contractor is requested to provide a budget capital cost for the proposed solution together with estimates of annual operating costs and staffing numbers. This information shall be based upon existing operating facilities. »

Whilst the notice did not specifically exclude alternative technology solutions, very few replies were received other than from conventional Energy from Waste suppliers. A political determination not to widen the field of suppliers was expressed by the Waste Strategy Steering Group. The only evidence

the Panel has received in relation to the exploration of alternative technologies at that time was a presentation from Fichtner on Mechanical Biological Treatment and Refuse Derived Fuel.

The President, Health and Social Services Committee stated:

"But the impression I very much get is that, whilst the expressions of interest process that's been undertaken and the work done by the Department and its consultants has looked at the possibility of other mechanisms, I kind of get the impression it's been going through the motions, just to be able to say that "Well, we've looked at these things and they're not especially viable."

The requirement to have two working plants of the same size each having operated for several years automatically excluded some suppliers of developing alternative technology who have since met or will shortly meet that condition.

Société Jersiaise (Environment Section) stated:

"...we note now that what we feared then, we read in the Draft Strategy where, in our view, everything had seemed to work on the presumption that incineration was going to be, that's what seems to be the recommendation of the Draft Strategy, if we are correct. I think what we would like to see then is wider assessments, a more independent assessment of, first, what is needed and later how the selection should be made."

"Well, that is the impression I get from meetings that I have attended by Public Services, that they are putting the incinerator first .....And the rest behind, which is not the right way round".

# SECTION 9: **BELLOZANNE COVENANT**

## Finding:

- 1. Without a resolution of the Bellozanne Covenant issue it will be difficult to impose any form of user pays charge or environmental tax for waste disposal on the residents of St Helier.
- 2. The cost of removing the Covenant has not been established and could be extremely expensive.
- 3. The decision to accept a proposal to remove the covenant rests with the Parish Assembly.

Recommendation: The States must be fully apprised of all costs associated with buying out the covenant and the implications on funding and user charging if the covenant is not removed.

The Panel was made aware of a Covenant that exists in respect of the land at Bellozanne on which the incinerator is built. The Panel sought legal advice to gain a better understanding of the implications of the Covenant. The Connétable of St. Helier, in giving oral evidence, explained the following: -

"The Bellozanne Covenant was put in place when the then Public Works (I suppose they were called) Committee took over the site which is currently used by Public Services for the incinerator. When that was passed to the public from the Parish, the Covenant basically was put in to ensure that the Parish of St. Helier would never have to pay to have its refuse disposed of by, I think they were called, the destructors in those days. What that means in practice, I am told, is that whatever happens to the incinerator in the future, the Parish of St. Helier would be entitled to take its rubbish up to Bellozanne for disposal and if the incinerator was not there, then the rubbish could be left at the gates of Bellozanne and the Covenant would require the public to deal with it."

"Certainly I have heard officer discussions which have tried to say that because the type of refuse that was sent to the destructors has changed, the Covenant no longer applies, but I gather that probably isn't the case and that certainly the intention of the Covenant was very clear when it was put in place, and any court would probably find in favour of the Parish, if the Parish were to want to apply it. I think we have applied it once certainly while I've been Constable, and that was when Public Services were minded to charge us for some of our glass disposal at La Collette and I reminded my officers of the existence of the Covenant. I believe the bill was not presented to the Parish for that glass disposal."

The States cannot ever charge the Parishioners of St. Helier for refuse disposal wherever it happens, whether it is La Collette or Rozel or whatever, because the Parishioners of St. Helier could claim that they are still entitled to take their refuse to Bellozanne to have it cleared up by the Parish. So it doesn't really matter

where it goes; the key issue, it seems to me, is how any plant is paid for. If the Parishioners of St. Helier perceive that they are being asked to pay for refuse disposal, then they would, I suspect, have legitimate grounds for calling in the power of the Covenant."

"I think if the States adopt policies around recycling, then I think, particularly because there are ways of paying for that at the front end -- in other words, if you have to pay for the part of disposal when you buy the product -- then clearly the Covenant cannot affect that. That is a way of deriving income to pay for recycling initiatives without coming into conflict with the Covenant. "

The Connétable speculated thus: -

"...but it is the problem of the Covenant which has stalled the whole strategy, because I know things were ready to move several years ago. Lots of work was done, I think it was by Fichtner, on different collection methods, but nothing happened and I suspect it is because people ran up against this problem of "Well, we can't dispose of it in a given way because we can't get round the Covenant." Again, I speculate, but I suspect that was the problem."

Certainly, Committee Acts (Part B and subject to Confidentiality clauses in accordance with the Code of Access to Public Information) of Public Services Committees do show consideration of how to best approach the matter of the Covenant over a number of years.

The Panel believes that this situation remains unresolved to date.

# **SECTION 10: GUERNSEY**

# Findings:

- 1. Although there have been some discussions with Guernsey dating back to 1999, the possibility of working together with Guernsey has only recently been addressed.
- A feasibility study of a joint Channel Island Energy from Waste plant of conventional design was recently released. However the report did not consider the use of alternative technology or at reducing the residual waste through intensive recycling.
- 3. There has been little, if any, co-operation with Guernsey into researching the development of freight options for exporting waste to France.

Recommendation: More work needs to be undertaken in developing inter-Island initiatives in recycling, export or treatment of waste where mutual benefit might accrue.

The Island has been aware for a number of years that Guernsey faced similar problems of waste disposal and there is evidence that Public Services Department officers discussed the possibility of joint initiatives as far back as 1999. These discussions were ongoing through 2001.

In 2002 it was agreed that a representative of the then Public Services Committee should attend a seminar in Guernsey on alternatives to mass burn incineration. Also in 2002, there was a suggestion that there might be the possibility of establishing a joint regulatory resource as both Jersey and Guernsey were faced with meeting the obligations of the Basel Convention.

The Panel can find no evidence of any further joint initiatives regarding waste management until December 2004, following the intervention of the Scrutiny Panel, where there is a record of consideration of the funding aspects of a joint venture with Guernsey.

A Panel of Inquiry into the future of Solid Waste Disposal in Guernsey was formed following a Resolution of the States of Deliberation of the Island of Guernsey on 1st July 2004. The first two terms of reference of the Guernsey Panel of Inquiry are particularly applicable to the current situation in Jersey [the latter two being Guernsey specific] and are as follows:-

	1)	Review		whether m		mass burn		technology	in	the	form	of	the
	proposed	on-Island	EfW	plant	is	the	most	appropriate	wa	ste			
management sol	lution for G	uernsey's r	needs	;									

	2)		Review	whether	there	are	practica	ble altern	atives	to	On-Islai	70
	mass	burn techi	nology, и	vhich cou	ld cost-	-effec	tively m	eet Guern	sey's			
needs.	Options to be	investigate	d may in	clude was	te redu	ction	and		recyc	ling	initiative	S,
off-Isla	nd solutions, a	alternative t	technolog	ies and			interim	solutions	or a	comb	pination	01
these.												

The Scrutiny Panel has exchanged information with the Chairman of the Panel of Inquiry into the future of solid waste disposal in Guernsey and attended some presentations and visits to waste management companies together.

The report of the Guernsey Panel's investigations was made public at the end of January 2004 (Appendix 4) and the Panel believes that it is valuable to list the four main findings below.

"Although there would be some advantages in going ahead with the proposed plant, there are too many disadvantages and uncertainties to make it the right choice for Guernsey."

"Much more should be done to encourage the reduction, re-use and recycling of waste. This would help to reduce the disposal problem but it would not solve it."

"There are a number of promising alternatives to the proposed plant that are worth exploring and which may provide a solution in the longer term."

"An interim solution to Guernsey's waste needs will be required until a long term solution becomes available."

The Panel has been aware that there has been some liaison between the Environment and Public Services Committee and its Guernsey counterparts, albeit late in 2004. Assurances that liaison was occurring were given to the Panel by the President of the Environment and Public Services Committee between himself and his Guernsey counterpart, evidence given by that President in October 2004 did not completely support that fact. He stated: -

"But you can rest assured that the issue of monitoring what has happened in Guernsey has been in the forefront of my mind and certainly I remain open to looking at opportunities with Guernsey. What I have to say to you is that even if a Channel Islands' solution were to be possible -- and we would be dealing with, I suspect, a plant that would be located in Jersey as opposed to Guernsey -- it doesn't change much of the fundamentals that are in our report. It doesn't change much of the fundamentals of the need to deal with and find a solution to the Bellozanne plant by mid-2008. My fear is that we could be well talking to Guernsey for another two years and therefore put off a decision in relation to the replacement of Bellozanne and, therefore, push the problem that I have already clearly explained to the public and to the Scrutiny Panel of finding a solution for the closure of Bellozanne, and I haven't got time to do that unfortunately. So I am afraid what I need to say is that if there is going to be an opportunity to work with Guernsey, they are going to have to unfortunately work to a quite difficult timetable."

However, the Panel was pleased to receive evidence in late November 2004 that deeper communication lines with Guernsey had been opened: -

"I have had a number of bilateral discussions with my number in Guernsey, with the Deputy Chief Minister, Deputy [B.] Flouquet, and we have discussed common issues on a couple of occasions and certainly we have shared experiences of dealing with each one of our waste issues and we took a suggestion to look into a joint Channel Islands' solution to the Joint Meeting of the Group of Presidents and the Council of Ministers of Guernsey that was held just a few days ago and we have agreed to jointly fund a project, each putting in £25,000, to actually work up an option for a Channel Islands' waste solution. That makes sense because clearly there is almost a sort of a minimum size of energy from waste plant or indeed alternative technologies if you believe that they exist. But, in any one of these technologies, but particularly energy from waste, there is a kind of minimum size, where there is a real almost if it is between 80,000 and 100,000 tonnes, you are dealing with a very similar kind of capital cost and so for a small island it makes sense to see whether or not that capital cost could be amortised over a greater tonnage. So it makes absolute sense to look to see on this occasion whether or

not Jersey and Guernsey can't actually do a joint project. I am not making any promises about whether or not that is likely to yield a successful result, but certainly from the preliminary figures that we have looked into, it looks as though it is an option we should investigate further, and Guernsey's Council of Ministers have agreed, the Group of Presidents have agreed, my own Committee is agreed, and so we are going to do some work on it and report by the end of the year on that option."

Work with Guernsey has since been undertaken in looking at the possibility of a joint initiative and the Panel has recently been forwarded a copy of the report on this. Due to the late receipt of the Guernsey/Jersey report, the Panel is unable to include its deliberations on this in this report but will do so when it considers the final Waste Strategy.

## SECTION 11: FUNDING

### Findings:

- 1. Insufficient attention has been given to a funding structure since it was decided that a replacement for the Bellozanne incinerator was required.
- 2. The draft strategy suggests that the project should be funded from the capital program but no allocation or application for funding has yet been made in the current five year plan (2005 –2009).
- 3. The "user-pays" principle is beset with difficulties due to the terms of the Bellozanne Covenant.
- 4. Despite interest on behalf of waste management operators in bidding for a complete waste management service to include collection, recycling and disposal, an early decision was taken to exclude this option due to perceived problems that this would cause with Parish and manual workers.
- 5. Alternative technology providers have expressed interest in public/private partnerships to showcase their technology at a reduced capital cost.

Recommendation: Major items of infrastructure must be accounted for in such a way that replacement funds are set aside over the lifetime of the asset.

Recommendation: The cost of the waste strategy could make a substantial impact on the capital program and must be reconciled within the current financial environment.

Recommendation: The Design Build (Fund) Operate procurement method or the use of a waste management operator should be re-examined as these options could provide infrastructure at little or no capital cost to the Island. Operational efficiencies could be achieved in this way.

Recommendation: Public/private partnership procurement initiatives should be explored.

In 1995 the Public Services Committee at that time was mindful that if success in waste minimisation through re-use and recycling initiatives could be achieved it would create major capital savings for the Island as the need for an additional or a replacement incinerator could be obviated. By 1999, the year in which the then Public Services Committee decided that a new incinerator was essential, it was advised that a new plant would cost around £60 million.

In 2000, the Carl Bro report states: -

"The capital cost of implementing this preferred strategy has been provisionally estimated to be in the order of £60 million representing a spend of +£700 per capita. By comparison a "green" recycling alternative may, hypothetically, provide

savings in the order of say £20 million over the review period".

By 2001 the then Finance and Economics Committee had agreed that any replacement plant would have to be funded through private means, however a Review Committee reviewing the Waste Management Directorate was of the opinion that this would be irresponsible of the States as it would prove costly and inefficient. Consideration was given, at that time to the "user pays" principle if the Public Services Committee were to fund the £60 million capital required for the replacement of the incinerator. Such a scheme would have needed to recover sufficient funds from households on the direct cost of the disposal of solid and liquid waste from 2003.

Late in 2001, despite a recommendation that the "user pays" principle should be adopted, the mechanism for funding the new incinerator was left with officers of the Policy and Resources and Public Services Departments and Treasury. [17]

During 2002, the then Public Services Committee, on recognising that there was to be no capital advance from the States capital programme for the project, fully endorsed some form of private funding arrangement. A meeting occurred in 2002 between the Presidents of the Public Services, Finance and Economics and Policy and Resources Committees to consider the timescale for the introduction of user pays charges for waste disposal and to explore opportunities for other funding mechanisms to progress the replacement of the Bellozanne plant.

However, during 2002, it became apparent that the "user pays" principle could not be applied due to the Covenant placed on Bellozanne. During 2003, the Finance and Economics Committee agreed that it would not sanction any "buy-out" of the Covenant until the States had adopted a Waste Strategy for the Island.

The President of the Environment and Public Services Committee in July 2003, summed up the situation at the first meeting of the Waste Strategy Steering Group as follows: -

"The Covenant, the cost of infrastructure, the funding route, user pays and alternative payment proposals also needed to be resolved".

In 2004, with the Covenant still in place, **there had still been no clear decision on the funding route.** Consideration was given to the new plant being procured on a design and build basis with the Public Services Committee continuing to operate the plant, that the States should borrow privately funds for both the plant and the Strategy and take repayments from the capital programme.

Late in 2004 the Waste Strategy Steering Group was advised that there were no funds projected in the 2005 to 2009 Capital Programme for the Strategy, although constructive discussions had taken place with the Presidents of the Policy and Resources and Finance and Economics Committees.

In giving evidence the President of the Health and Social Services Committee stated:-

"My own view is that you have to use market mechanisms to achieve this adequately, which is why I favour using a front end cost mechanism in terms of minimising the amount of waste that the Island has to deal with and then encourage and reuse, i.e., through some kind of excise duty or impôt duty or something, because the vast majority of material that goes through the incinerator is material that is imported to the Island -- foodstuffs, food packaging, you know, plastics. You know, the vast majority of it is material that is imported into the Island. Therefore, there ought to be some kind of disposal charge or environmental charge on that practice of the importation of these goods. That way, you would have an appropriate market mechanism to help not only pay for the way in which the refuse is disposed of finally, but if you have a front end cost that makes waste material actually cost a bit more to acquire in the first place, then you have got a

market mechanism that may encourage the minimisation of the production of the waste in the first place."

"It's all down to having the appropriate fiscal policies that will make this work. There is a cost to collection, to having sorted schemes, to having proper sort and collection for it to be disposed of, for it having gathered up, stored, bundled, containerised and whatever and then export it. But, of course, there is a cost to doing all that, which is why, I suppose, the States has never done that, because, again, that would require a more medium and longer term view to be taken of our fiscal policies so that there was a funding stream available for that kind of activity. That ought to be, as I have already described, some kind of front loaded excise duty on the waste as it is brought into the Island so that its disposal is ultimately paid for properly. "

The President of the Finance and Economics Committee suggested that the following would be the most appropriate approach: -

"I think it may well be that the funding considerations are secondary to the principle of establishing an energy from waste plant and determining its cost. There are various ways it can be funded. It can be funded, as you say, from a capital program, albeit that program may need rejigging from what is presently in draft form. It could be funded from a "user pays" sort of charge or gate fees or other mechanisms. Until one knows the sort of money involved and the strategy, all one can say is that all the options of funding are capable of being used."

"Without Prejudice" correspondence (Appendix 5) received from Verno Limited states:-

"Notwithstanding the above other funding mechanisms are available which together can make a contribution to capital expenditure, research and development and the establishment of facilities in overseas territories. Collectively funding in the order of 16 million Canadian Dollars (Euros 9.8million) subject to contract terms and conditions could be made available to projects of the type envisioned and that these sums have been discussed."

Advice received from Professor Coggins regarding funding options indicate that increasingly the private sector are tendering for waste collection and the current situation is for larger waste management companies to offer integrated waste management services for Local Authorities, still offering cost savings. Trade Union concerns about employment of Direct Service Organisation staff are covered in the UK by the Transfer of Undertakings for Public Employees - no similar legislation exists in Jersey.

However, the Panel has evidence that there would be "staffing Industrial Relation issues" if a decision was taken to opt for a Design Build Fund Option. [18] This was supported in oral evidence by the Connétable of St. Helier as follows: -

"I am aware that there are suggestions that refuse collection should be centralised, for example, and there should be areas of the Island collected by different groups. But then you run into fairly sensitive industrial relations issues."

Furthermore, the President of the Finance and Economics Committee stated that he suspected, "as a side issue, that there may also be labour relation issues."

### SECTION 12: PARISH INVOLVEMENT

### Findings:

- 1. Parish Authorities are key providers of the waste collection system and have been insufficiently involved by successive Public Services and Environment and Public Services Committees in formulating a key part of the draft waste strategy.
- 2. Very recent involvement has taken place since the intervention of the Scrutiny Panel.

Recommendation: Full consultation should be undertaken with the Parish Authorities to investigate a means of improving 'bring' systems in each of the Parishes, encouragement of the householder to re-use and recycle and an improvement of kerbside collections.

The Connétable of St. Helier stated:

"I think a lot of the concentration has been on what we do with the waste, the disposal rather than the collection."

During the course of the review the Panel has become increasingly concerned about the lack of consultation between the various Public Services Committees, the Parishes and the public.

Evidence received at public hearings stated that the main reason for not having implemented a source separation system (ie: separation at the household with separate collection service for different materials) was due to the lack of willingness on the part of the Parish authorities to restructure the existing collection service. Senator Ozouf in giving evidence stated: -

"Indeed, even the Constables, who were perhaps two or three years ago quite resistant to change in the collection system appear to be....their position does appear to be moving down the road of understanding the reason why you do need some form of separation."

Yet the Panel has received no evidence that the Parish Authorities have ever been resistant to considering a change to the system. In fact, evidence from the Minutes of the Comité des Connétables show that there was ongoing consultation with the Parishes during 1996 and that the Parishes had requested further details regarding the possible separation and door-to-door collection of plastic bottles, steel cans, papers, magazines, cartons and household batteries. The Minute of 26th June 1996 records:-

"The Connétables confirmed their support for the principle of waste recycling but stated that food waste must continue to be collected on a weekly basis.......The implications of recycling on existing refuse contracts would have to be considered by each Connétable. However the possibility of recycling cans and plastic bottles by adding to glass, which was currently collected separately, was favoured as a first step and Mr. Cannon [Total Recycling] was requested to contact each Connétable to discuss how the proposals might be implemented by refuse collectors in each Parish."

The next evidence of the matter being considered by the Comité des Connétables was in 2001 when the principle of recycling was confirmed and an agreement made to contribute half the full amount of £20,000 to a review of the existing system to identify whether an Island-wide waste collection was feasible or desirable. [19]

The Comité des Connétables received the above report in May 2002 and expressed its concern at the user pays proposals, timing of collections, accessibility and impact on costs for Parishes of the alternative collection options.

There is no evidence that the Comité des Connétables were directly consulted again until 2003 when the Chief Executive Officer of the Public Services Department attended a meeting of the Comité des Connétables to inform them that the "final waste strategy proposals would be available for consultation in October/November 2003..." [20] The Minute states: -

"To improve public participation the Connétables stressed the need to promote recycling and that waste products were actively being reused and recycled"

Furthermore, at a public hearing, the Chairman of the Comité des Connétables confirmed that he had no contact with the Environment and Public Services Committee prior to the draft Waste Strategy "Dealing with Jersey's Waste" being circulated for public consultation. This was reinforced in oral evidence by the Secretary to the Comité des Connétables that Waste Management had **not** been discussed by the Comité "in the last couple of years".

The Panel notes that the President of the current Environment and Public Services Committee believes in the importance of and value in working with the Connétables. In oral evidence he stated:

"We have an extremely well functioning but nevertheless separate central and local government function. What I would say is that we would not reach our targets, in terms of at the over 30% recycling and composting rate, unless we actually got the local authorities, the parish collection system, to be more coordinated. So, whilst I think we could and we would want to aspire to high levels of recycling and reuse, I am not able to enforce, or my Committee is not able to enforce, its will absolutely. We must take the parish authorities with us and convince them that they must change their collection system in order to achieve those sort of targets."

"Now, I am going to go and talk to the Constables again and part of the public consultation that we are doing at the moment is very much focussed on actually achieving a situation where the Constables will start to agree to co-ordinate and to introduce separation, kerbside collection etc. It is a high priority.... I think I would like to find out exactly how this waste management system is going to work and see if we can adapt to it."

The Scrutiny Panel interviewed the Chairman of the Comité des Connétables on 26th November 2004. On 13th December 2004, the President of the Environment and Public Services Committee attended a meeting of the Comité des Connétables. The Panel has also received recent evidence that there was a subsequent meeting held on 7th March 2005.

# SECTION 13: PUBLIC INVOLVEMENT

### Findings:

- 1. There has been insufficient consultation with the public in the development of the draft Strategy.
- 2. There has been insufficient consultation with other organisations and businesses in the development of the draft Strategy.

Recommendation: An ongoing dialogue should be initiated with all stakeholder groups as the waste strategy is developed to foster and encourage, educate and involve all sectors of the community in responsible waste practices.

The Panel was interested to learn from one of its Advisers, Professor C. Coggins, that in Hampshire between November 2003 and December 2004, there had been six public meetings attended by representatives from a wide range of stakeholders. Over 100 people had attended at each meeting and it was used as a sounding board to gain ideas, and reactions. The consultation exercise had involved the waste management industry, other industry, business sectors, Non-Governmental Organisations, environmental groups, nature protection and other groups, all of whom were currently regarded as being essential under strategic and environmental assessment moves. [21] He also stated in oral evidence:-

"I think it is recognised in all local authorities...in the UK that there has to be stakeholder engagement. That is the public."

The Panel notes that the draft Strategy has been released for a period of consultation and is pleased that the President of the Environment and Public Services Committee is receptive to feedback. This is supported by evidence the President gave at a public hearing which states: -

"We have been working hard on putting out a strategy and listening to consultees and stakeholders and, goodness me, have I been impressed and delighted with the response on the consultation. The strategy that we will come out with in the early part of next year and the report and proposition to the States, will it look different from that strategy? Absolutely it will because if it wouldn't look different, then clearly why have bothered to have consulted? Certainly I have been impressed and delighted with the response from the consultation exercise of how keen people are to do more in the area of recycling and I fully intend to make recycling an even greater part of the strategy as result of the consultation and I am really pleased about that."

However, the Panel notes with concern that the period of consultation has <u>followed</u> the production of the draft Strategy and did not occur as a part of the overall process in drawing up the draft Strategy. Furthermore, it is noted that public feedback included on the Environment and Public Services Committee Website provides no new information,

The Panel is critical of the lack of consultation with the other organisations during the development of the draft Waste Strategy.

The Jersey Environment Forum was established in order to "provide advice to the Committee [Environment and Public Services Committee] to assist its thinking about policies and programmes that affect the Environment and act as a sounding board.....The Forum will concentrate on strategic issues that have an Island-wide relevance ...." [22]

The Panel was therefore surprised to learn, through oral evidence from the Jersey Environment Forum that, although discussion had occurred between the Forum and the Director of Environment there had been no meetings between the Forum and the Environment and Public Services Committee prior to the circulation of the draft Waste Strategy. In its written evidence the Jersey Environment Forum states:

"A recently published booklet "Dealing with Jersey's Waste (Environment and Public Services Committee, September 2004) is a good step towards raising public awareness; we hope it will be widely distributed......maximum involvement is necessary to make the Strategy successful."

The Panel maintains that such maximum involvement should have occurred prior to the release of the draft Strategy.

The Environment Section of the Société Jersiaise equally expressed concern at the lack of consultation stating: -

".... We have had a Waste Strategy. I think it has been produced four years ago, for example, when the incinerator was costed at £60 million, but no great attempt was then made to get public....to mobilise popular opinion at that stage. I mean, if one can see that there is going to be some move towards this getting popular support, then perhaps something can be done but it hasn't happened so far."

The Panel also noted oral evidence from the Bellozanne Residents Group regarding the lack of consultation despite claiming to having been promised such a consultation about two years ago.

#### Bellozanne Residents Association also stated:

"Although recycling is featured heavily in the document I have concerns that it is not going to receive the same priority as constructing a new plant or will receive sufficient funding. I feel that it should be treated with equal importance and needs to be implemented sooner rather then later to help reduce the current emissions and obviously to minimise the waste that is being burnt. Referring to the table on p58 of the document there is no financial provision for education in relation to recycling. People won't want to recycle if they don't know how or why they should be doing it."

# **SECTION 14: PROCESS**

### Finding:

1. The process has been subjected to a large number of Committee membership changes since 1990. This cannot have assisted in the development of Strategic documents.

The Panel believes that it is beneficial to the reader to understand the frequency of changes in Presidency (11 in total) and changes in Committee membership as set out in Table 2 below.

Date	President	Other changes
December 1990	Deputy J. Le Gallais	
31st May 1991		Deputy G.E. Rabet resigned
24th September 1991		Connétable of St. Mary
		appointed
31st August 1993		Deputy S. Syvret resigned
9th December 1993	Deputy D.A. Carter	
16th April 1996		Senator V.A. Tomes
04 114 1000		resigned
21st May 1996		Deputy A. Breckon appointed
12th December 1996	Senator V.A Tomes	
2nd June 1998		Deputy J.J. Huet resigned
9th June 1999		Deputy A.S. Crowcroft
		appointed
30th June 1998		Deputy R.W. Blampied
		resigned
30th June 1998		Deputy J.L Dorey appointed
1st December 1998	President, Senator V.A. Tomes resigned	
8th December 1998	Deputy D.L. Dorey	
11th May 1999	President, Deputy D.L.	
	Dorey, having been elected Senator, resigned	
25th May 1999	Connétable C.J. Le H.	
	Hinault	
9th December1999	Deputy A. S. Crowcroft	
12th September 2000	President, Deputy A. S.	
	Crowcroft resigned	
12th September 2000	Deputy A. S. Crowcroft re- elected	
24th April 2001		Connétable K.P. Vibert
		resigned
9th October 2001		Deputy J.A. Martin resigned
15th January 2002	President, Deputy A.S.	
	Crowcroft. Having been	
	elected as Connétable of St.	
20th January 2002	Helier resigned as President	
29th January 2002	Deputy R.C. Hacquoil	Novely formed Continuous
12th December 2002	Deputy M.F. Dubras	Newly formed Environment

		and Public Services Committee
19th April 2003		Deputy J.B. Fox resigned
9th September 2003		Connétable A. S. Crowcroft resigned
17th February 2004	Deputy M.F. Dubras resigned	
2nd March 2004	Senator P.F.C. Ozouf	
15th September 2004	Senator P.F.C. Ozouf resigned	
28th September 2004	Senator P.F.C. Ozouf re- elected	
12th October 2004		Deputy J.A. Hilton resigned

Table 2

It became apparent at a very early stage of the Panel's investigations that frequent changes in Committee Presidency and membership had a detrimental affect on the development of a fully comprehensive Waste Management Strategy. The Panel endorses the following statement made by the President, Policy and Resources Committee when he gave evidence on 11th October 2004, regarding the frequent changes in Presidency over recent years:-

"I think I have lost count, and I think probably most other people have as well, of how many Public Services Committees we have had over the last, what, five or six years and that sort of instability, that sort of lack of continuity, has contributed dramatically, in my view, to the delay that we have experienced in having a sensible Waste Management Strategy and probably implementing it some time before now."

# **SECTION 15: WORKING GROUPS**

### Findings:

- 1. A number of working groups have been established since 1998, some of which appear to have dissipated, others of which appear never to have met and the most recent group has held five meetings between its formation in 2003 to the end of 2004.
- 2. The Groups have all lacked people with a breadth of professional and technical expertise in alternative waste management technologies.

Recommendation: In any matters of a highly technical content, there should be an "expert" group from the outset. In the case of Waste Management an excellent example of this is the composition of the Panel of Inquiry into the Future of Solid Waste Disposal in Guernsey. [23]

In conjunction with the number of changes in Presidency the Panel believes that it is relevant to consider the number of times that various groups were established to progress a Waste Management Strategy and the composition of those groups.

In 1998 the Solid Waste Management Steering Group was established **although the Panel can find no formal records of any meetings**. In June 2000, the Policy and Resources Committee agreed to establish a Task Force comprising representatives of the Policy and Resources, Finance and Economics, Public Services, Planning and Environment and Industries Committees. **There is no evidence that this group ever met.** 

In July 2000, the Public Services Committee established a new Solid Waste Strategy Steering Group which comprised cross-departmental officers and two members of the Public Services Committee. The Panel can find no records of any meetings of this group, although evidence received from the Environment and Public Services Committee, in its chronology submitted to the Panel, states that this group approved the Terms of Reference for the consultant engineers to review the Carl Bro report which had been produced in April 2000. According to evidence received from the Environment and Public Services Committee in its chronology of events, the Solid Waste Strategy Steering Group also evaluated ten expressions of interest, after which Babtie Fichtner were appointed. The Panel has no evidence by way of a Committee Act regarding this appointment.

In July 2003, the Waste Strategy Steering Group was reconvened with the remit of preparing a draft Waste Strategy for presentation to the States. This group prepared the advertisement for the Official Journal of the European Community and reviewed the initial Expressions of Interest. It is surprising, therefore that on taking up the Presidency in December 2002 and recognising that the Waste Management Strategy would be a primary matter for the Environment and Public Services Committee, that the President did not read all the background papers. In answering a question as to whether he had undertaken to do this he replied:-

"No, I hadn't and I wouldn't expect to".

He added:

"I have been advised that Carl Bro actually started in about 2000. The work of all the previous Committee, all the minutes of Committees of which some people at this table today were Members of, were integrated into the summary briefings that the Committee and the Steering Group received. All of that knowledge is not lost, Senator. If someone had nothing else to do and was minded to, of course all of that knowledge, that information is available to them. But to my mind, that is a fairly dedicated task and I applaud the efforts that this Panel has gone into to review some of that historical data. However, I have to say that, in my apprenticeship of being a Member of the States, I can't remember many situations where the Committee I was a member of was determined - not told it had to but was determined of its own accord - that it had to stop everything and go back to all of the files and research everything. Obviously as you pick up each topic, you might research some of it or you might not research any of it but I cant remember a single case where we trawled back 10 years to see what had been done and what had been learnt by previous politicians".

Yet, in 1995 the Public Services Committee had approved a report which included an introduction to private enterprise initiatives, avoidance of waste arisings as a main aim, a public awareness campaign and a request for the relaxation of charges for exports to seek to reduce the amount of material entering the Island. That Committee had been mindful that success could achieve major capital savings for the Island if the need for an additional or a replacement incinerator could be obviated. This Act is of key importance and is included in Appendix 6.

In relation to the above, Professor Coggins, in giving oral evidence stated:-

"..the situation is being dominated by a desire to replace the incinerator. That seems to have come through in both the paperwork of the minutes of the meetings that a new energy from waste plant had to be commissioned by 1st January 2009. I was quite surprised that there is no mention in any of those reports of the report that you sent me a little while ago, dated 25th September 1995, which I find for the date is probably far more far reaching than any document in the UK of that date.

The Panel finds it incredulous that, ten years since that Act of Committee there has been no implementation of the decision of that Committee. Had new Presidents, on taking up that rôle, researched the background and carried forward the strategies agreed by previous Committees, we would be far more advanced in the area of waste prevention, have reduced the amount of waste going for incineration which might have had a positive effect on emissions and a recognised need for a smaller plant for residual waste disposal.

However, working groups continued to be formed and in April 2004, new members were appointed to the Waste Strategy Steering Group. The Panel has written evidence that the Waste Strategy Steering Group met on five occasions over a 16 month period, between 25th July 2003 and 7th December 2004.

It is also surprising that the President of the Health and Social Services Committee should give the following view in oral evidence to the Panel:-

"I suppose the driving determinants of the Waste Strategy Steering Group has largely been that there has to be a replacement for the incinerator so the technological engineering solution has been the one that's been to the fore. The Group is largely directed by the Public Services Department. The meetings take place up there and most of the advice given to the Waste Steering Group is from the Public Services Department or from consultants employed by the Public Services Department. So it's not perhaps particularly surprising that the engineering solution has been the one that's tended to be to the fore."

#### Composition of various Groups

July 1998
Waste Management Steering Group
Representative of Public Services Committee
Two Public Services Department Officers
Environmental Adviser to the States
Environmental Services Unit, Director
Parish of St. Helier

June 2000
Proposed Task Force
Representatives of:
Public Services Committee
Policy and Resources Committee
Finance and Economics Committee
Planning and Environment Committee
Industries Committee

July 2000
Waste Strategy Steering Group
Representative of Public Services Committee
Public Services Department Officer
Environmental Adviser to the States
Environmental Services Unit Director
Planning and Environment Officer
Treasury Officer
Parish of St. Helier

Public Services Officer (x2)

July 2003
Waste Strategy Steering Group
President, Environment and Public Services Committee
Representative, Environment and Public Services Committee
Representative of Finance and Economics Committee
President, Health and Social Services
Acting Medical Officer of Health
Assistant Director, Health Promotion
Treasury Officer
Director, Environment department
Planning and Environment Department Officer
Fichtner Consultant

On questioning about the qualifications of the people involved in the above groups Deputy M. F. Dubras stated:-

"In terms of whether it was reasonable for a group of people without knowledge to do that, that is the hallmark of the States of Jersey and the way that it operates and has operated for centuries. If you get people with knowledge and expertise, it is a bonus. For years there has been a pattern in some situations where people with knowledge were left out of Committees of the States and left off Steering Groups. Of course, you try to get experience, but we are there to make decisions as laymen, elected representatives..."

The Panel was surprised and concerned to note that until 2003, there had been no inclusion of any people with an in-depth knowledge of Waste Management. It is also concerned that in 2003, the only representative with any knowledge was from the Environment and Public Services Committee's Consultancy firm. The Panel is of the opinion, therefore, that these groups lacked the range of expertise required and appropriate professional input.

## SECTION 16: WASTE MANAGEMENT STRATEGY

### Findings:

- 1. As the Environment and Public Services Committee has been unable to provide a detailed analysis of all the options available, it has been necessary for the Scrutiny Panel to undertake its own research into a range of options and technologies. Considering the importance of such a major project and the long-term implications for the Island, the Panel is extremely concerned that there is insufficient information available to States Members and the Public, to enable a sound decision to be made.
- 2. Insufficient work has been undertaken by the Environment and Public Services Committee into various issues such as export, alternative technologies, joint initiatives with Guernsey and consultation with the Parishes.

Recommendation: There should be no debate of the Waste Management Strategy until the options within this Scrutiny Report have been fully researched with results made public, and a proper consultation exercise with all stakeholders undertaken.

The journal Waste Management World November -December 2004 published an article on Island solutions "Integrating waste-to-energy (Appendix 7). Under the heading "Examine all options" it states:-

"Optimum waste management solution can incorporate options for landfill, composting, mechanical-biological treatment, thermal treatment, recycling, reuse and waste prevention. It is essential that these options be cross-referenced in an integrated management framework in order to ensure that costs are optimized and options are flexible. As experience shows, effective integrated resource and waste management systems use a combination of different yet complementary treatment methods in proportions determined by local needs and priorities."

The Panel believes that there have been missed opportunities since the production of the Carl Bro report in April 2000 to develop an holistic approach to a sound waste management strategy. The Public Services Committees over the years have been driven by the fact that the incinerator must close by the target date of 2008. The focus has, therefore, been on a replacement incinerator with no evidence of a full investigation into other alternatives and no will to drive forward greater waste minimisation approaches despite there having been an opportunity to do so.

Both Panel advisers voiced their concern with the draft strategy.

Professor Swithenbank stated:-

"...I am not completely happy at the moment that the design and build solution has been looked at as thoroughly as it may be in terms of current philosophies. I know we are looking back over 'n' years and things have changed with time, obviously, but there is...I mean, the waste composition questions come out. There is more analysis, a thorough investigation and whether that is done by a company or competitive companies bidding for the issues, these are things that I

think are still open in my mind. I am not convinced that we have really come up with the optimum solution for the whole need"

#### Professor Coggins stated:-

"In my considered opinion, I think, as a document, it would not fulfil the guidelines on municipal waste strategies in the UK.....It is not a strategy document in terms of having both a vision and a set of plans and route maps to deliver that. Certainly I think the latest remit coming out of government is that municipal waste management strategies must in future be flexible. So we may have started to move away from the 25 year strategies with fixed commitments and fixed capital investment and certainly the guidance that came out in December formally recommends that local authorities must periodically review and take on board changes and obviously, given the rate of technology changes and given the rate of market development, it is possible that these changes will accumulate and progress over the next five to ten years."

The President of the Policy and Resources Committee on giving evidence on 11th October 2004 echoed these views and stated that "the Environment and Public Services Committee still have some work to do before their strategy can be approved by the States."

## SECTION 17: BACKGROUND RESEARCH AND REPORTS

The Panel has considered a vast amount of information since establishing this review. This is listed in Appendix 2, with the exception of material received in confidence which is not listed. Below is a list of the visits made by or to Waste Management organisations. The Panel takes this opportunity of thanking all the following companies in particular, for their assistance, hospitality and patience (alphabetical)

COMPACT POWER (Appendix 7)

(UK Company supplying pyrolysis and gasification technology. Preferred bidder in DEFRA New Technology Demonstrator Programme.)

15th October 2004 Presentation to Scrutiny Panel

13th December 2004 Visit to plant in Avonmouth by Advisers and

one Panel member

7th February 2005 Presentation and Public Hearing

ENER.G (Appendix 8)

(Combined Heat and Power (co-generation), Renewable Generation, Energy Management, Energy from Waste)

11th January 2005 Visit to plant in Norway - three Panel

members and one Public Services

Department Officer

7th February 2005 Presentation and Public Hearing

IVAR (Appendix 9)

(Joint municipal treatment plants for water, sewerage and solid waste)

11th January 2005 Visit to Norway - three Panel members and one Public Services Department Officer

ONYX (Appendix 10)

(A Waste Management Company dealing with all phases of waste management from collection to sorting, transfer, treatment and recovery.)

September 2004 Visit to Millwall, South London by one Panel

member

29th November 2004 Visit to Jersey

7th February 2005 Presentation and Public Hearing

OXALOR (Appendix 11)

(A chemical reaction of lime with water which is producing energy (heating) so that the final product obtained is dryer than incoming wastes and that the pathogens are killed during the process. Constructed by Vauche and monitored by RITTMO, a regional centre for innovation and transfer of technologies specialising in the field of organic fertilizing matter.)

17th February 2004 Presentation and Public Hearing

10th March 2005 Visit to plant - four Panel members and two

**Public Services Department Officers** 

PAYS GRANVILLAIS (Appendix 12 : in French)

(Recycling initiatives)

5th October 2004 Visit to Granville recycling initiative - four

Panel members

SIREC (Appendix 13: in French) (recycling initiatives: industrial waste)

4th October 2004 Visit to Isigny Le Buat - four Panel members

17th February 2005 Presentation and Public Hearing

SITA (Appendix 14)

(Ecuost'air Incinerator, Le Havre operated by NORVEGIE a subsidiary company of SITA. The Panel visited recycling plants, a landfill site and a regional recycling collection and sorting plant together with specialised equipment designed to facilitate recycling projects.)

4th October 2004 Visit to Le Havre "Ecostuair" - four Panel

members

6th December 2004 Presentation

SPEN (with SIREC)

(recycling initiatives: collection and household waste)

17th February 2005 Presentation and Public Hearing

VERNO (Appendix 15)

(in-vessel composting and plasma gasification)

November 2004 Visit to plant in Cambridge - one Panel

member

7th February 2005 Presentation and Public Hearing

Visits to Jersey have all been paid for by the individual companies. The visit to Norway was hosted and paid for by ENER.G.

The Panel has evidence that the Environment and Public Services Committee visited the Le Havre plant and Montebourg on 22nd November 2004 following the Scrutiny Panel's visit to Le Havre on 4th October 2004. The Panel has been pleased that Officers from the Public Services Department have accompanied Panel members on two subsequent visits.

# **SECTION 18: BACKGROUND SYNOPSIS**

There is a lengthy sequence of events relating to the replacement of the Bellozanne incinerator and the development of a Waste Management Strategy.

In view of this, the Panel believes that the following synopsis, compiled from evidence received, is beneficial to the understanding of how the island has arrived at its current position. Some matters in table 1 below are dealt with in greater depth later in the report.

1979	The original Bellozanne two-stream plant started operation.
1993	A third stream was commissioned and following a series of pollution emission investigations by Warren Spring Laboratory it was recognised that, in order to meet proposed emission limits by Her Majesty's Inspectorate of Pollution, the entire plant should be fitted with gas cleaning equipment.
September 1995	The Public Services Committee considered a paper entitled "Waste minimisation and recycling options for Jersey" which had been prepared by Deputy G. Matthews, agreeing that waste avoidance should be the main aim.
November 1996	The States of Jersey adopted a report and proposition [24] that a gas cleaning system should be fitted but rejected the proposal that the capital allocation decision conferencing should be required to have due regard to the decision.
April 1998	The then Public Services Committee agreed that consideration would need to be given to replacing the two streams which had been
	commissioned in 1979 within the forthcoming ten years. [25] (The estimated cost in 1998 was £44million) The Committee also at that time agreed that measures should be taken to reduce the amount of waste delivered to Bellozanne.
May 1998	The Public Services Committee emphasised its concern at the significant increase in waste delivered to Bellozanne and agreed that a review of the treatment plant should also cover the wider issues of solid waste management and allow for long-term planning of a solid waste management strategy. [26]
July 1998	The first of a sequence of groups, initially named the Solid Waste Management Steering Group (SWMSG) was formed to review documents and agree on recommendation for the appointment of a consultant to undertake a review of waste management and prepare a strategy for the Committee. [27]
October 1998	Consultants Carl Bro were appointed following a selection process [28]. [The Panel can find no evidence of the selection process undertaken through Committee minutes or Minutes of the SWMSG.]
July 1999	There was discussion, at officer level, with Guernsey comparing the development of <i>Island Waste Strategies</i> [29]
September 1999 to April 2000	Consideration was given to the first draft report from Carl Bro consultants including meeting a paper recycler from the United Kingdom to consider large scale paper recycling for Jersey. [30]
	large scale paper recycling for dersey.

	An Act dated 22nd October 1999 stated that "The new plant which was
	required had been costed at around £60 million"[31]
April 2000	Carl Bro recommended an Environmental Management System [32]
June 2000	comprising representatives of the Policy and Resources, Finance and Economics, Public Services, Planning and Environment and Industries
July 2000	Committees. [33] [There is no evidence that this Task Force ever met.]  The Public Services Committee established a new Solid Waste Strategy Steering Group which comprised cross-departmental officers and two members of the Public Services Committee.
October 2000	The Public Services Committee believed that the Carl Bro report did not contain sufficient information relating to developing technologies such as anaerobic digestion and recycling initiatives and agreed that a financial and technical assessment was also required on the cost of refurbishing the existing incinerator measured against the cost of constructing a new plant. To that end, it was agreed to seek expressions of interest from consultant engineers. [34]
November 2000	SWMSG approved the Terms of Reference and an advert was placed in United Kingdom professional journals seeking expressions of interest from
	consultants experienced in preparing Waste Management Strategies. [35] [The Panel has not been able to find any written record of the SWMSG's approval of the Terms of Reference]
November 2000	Information regarding new technology in Bridgend, South Wales. Following a visit this was not progressed as the plant was not operational. [36]
January 2001	SWMSG evaluated ten expressions of interest <sup>[37]</sup>
March 2001	Babtie Fichtner appointed. [38] (The Panel can find no Act recording this appointment)
August 2001	Babtie Fichtner reports [Review of Waste Strategy - endorsing findings in Carl Bro report], technical appraisal of Bellozanne incinerator [recommending replacement with new EfW plant] and a financial appraisal for overall project costs.
September 2001	Public Services Committee received an oral update on proposed Survey of Waste Collection Services
October 2001	The Policy and Resources and Finance and Economics Committee requested details of procurement options, impact on the States in terms of resources, subsequent management and financial requirements. [39]
November 2001	Presentation of draft Strategy to Comité des Connétables.
	The Ecologist expressed concerns about the Strategy and a post of "Recycling Officer" would be advertised in January 2002 [40]
November 2001	The Public Services Committee was advised that a review of the Waste
January 2002	Collection System would be carried out by Babtie Fichtner [41]  PriceWaterhouseCoopers (PWC) approved to undertake procurement review [No evidence of Public Services Committee approval of PWC has been found although the Panel has evidence through a Finance and Economics Committee Act that the transfer of funds was approved] [42]
Ĺ	Transfer and

February 2002	The Public Services and Planning and Environment Committees received a presentation of a draft Waste Strategy with particular regard to the alternative technology proposed by Recycled Refuse International and it
	was agreed to visit the plant in Bridgend, South Wales <sup>[43]</sup>
March 2002	Consideration of and visit to Brett Waste Group regarding "Brightstar" process. [44]
	Meeting with Guernsey regarding "Compact Power" [45]
	Public Services Committee consideration of the Covenant on the Bellozanne site.
April 2002	The Public Services Committee agreed to the establishment of a Project Board to provide overall management of the procurement process for a new EfW plant.
May 2002	The Public Services Committee authorised the officers and the consultant Fichtner Limited to prepare documentation for the pre-qualification process and subject to States approval of the waste Strategy to seek interested bidders by advertising in the Official Journal of the European Community (OJEC)
June 2002	Juniper Consultants, having evaluated alternative technologies for the States of Guernsey confirmed that an EfW plant was appropriate as a part of its Waste Strategy.
March 2003	A draft Waste Strategy publicity leaflet was considered by the Public Services Committee and was referred back for amendments.
July 2003	The Waste Strategy Steering Group was reconvened with the aim of preparing the Waste Strategy for the States. It reversed the decision of May 2002 to await States approval of the Waste Strategy prior to seeking interested bidders by advertising in the Official Journal of the European Community (OJEC) and authorised Expressions of Interest to be sought.
October 2003	The WSSG reviewed the Waste Strategy and the initial Expressions of Interest
December 2003	The WSSG received a presentation from Fichtner Limited on Mechanical Biological Treatment and Refuse Derived Fuel
April 2004	New members were appointed to the WSSG
April 2004	The Environment and Public Services Committee noted that a Scrutiny Review would be undertaken into the Waste Strategy
May 2004	Shadow Scrutiny Panel expresses intention to investigate Waste Management Strategy progress
June 2004	The Environment and Public Services Committee approved the draft Waste Strategy for the purposes of consultation.
June 2004	The Environment and Public Services Committee delegated the approval of a short list of companies to be invited to tender for a new Energy from Waste plant to the WSSG.
July 2004	The Environment and Public Services Committee considered the draft submission to the Scrutiny Panel
September 2004	WSSG meeting considered six companies shortlisted and considered other possible companies. No decision appears to have been made other than to reconsider the matter at a subsequent meeting. It also agreed to some changes to the draft Strategy regarding procurement options.
September 2004	The Environment and Public Services Committee was advised that the WSSG had endorsed the consultation draft Waste Strategy at its meeting
	on 8th September 2004 [46]: [There is no evidence of this in the

	minutes of the meeting of the WSSG of that date.]
September 2004	Summary of the draft Waste Strategy "Dealing with Jersey's Waste" was made available for public consultation.
October	The Environment and Public Services Committee scheduled consultation
2004	meetings over the forthcoming weeks.
December	A meeting of the WSSG was advised that the draft Strategy had been
2004	finalised.
December 2004	The President, Environment and Public Services Committee attended a meeting of the Comité des Connétables

Table 1

### **GLOSSARY OF TERMS**

Anaerobic Digestion: breakdown by micro-organisms with no air. Works in-vessel and produces bio-gas and a sludge/liquid "digestate".

Autoclaving: steam treatment, often of unsorted wastes - facilitates removal of recyclables and produces a fibrous refuse derived fuel and residues for landfill.

Composting: breakdown of biodegradable wastes by micro-organisms in the presence of air - in an enclosed vessel or in open "windrows".

Gasification: high temperature (1000+°C) low oxygen partial combustion to produce a gas fuel. Often uses pre-sorted waste or refuse derived fuel.

Mechanical and Biological Treatment: combines a number of simple waste separation and treatment techniques, usually involving composting and/or refuse derived fuel production.

Pyrolysis: medium/high temperature (500°C), low oxygen breakdown of organic wastes producing gas or oil fuel and a high carbon "char" which may need to be landfilled. The plant often runs on pre-sorted waste or refuse derived fuel output from another technology.

## **APPENDICES**

Appendix 1: Green List Waste Exports Professor C. Coggins

Appendix 2: Background reports, Committee Acts and Group minutes

Appendix 3: Department for Environment, Food and Rural Affairs - New Technologies Demonstrator Programme

Appendix 4: Guernsey

Report of the Panel of Inquiry: The Future of Solid Waste Disposal in

Appendix 5:

Correspondence from Verno Limited- Canadian Government

contribution

Appendix 6: Public Services Committee Act No.3 of 25th September 1995

Appendix 7: Waste Management World "Island solutions integrating waste to

energy"

Appendix 8: Compact Power presentation to Scrutiny Panel

Appendix 9: ENER.G presentation to Scrutiny Panel

Appendix 10: IVAR presentation to Scrutiny Panel

Appendix 11: ONYX waste management services presentation to Scrutiny Panel

Appendix 12: OXALOR presentation to Scrutiny Panel

Appendix 13: Pays Granvillais presentation to Scrutiny Panel

Appendix 14: SIREC presentation to Scrutiny Panel

Appendix 15: SITA presentation to Scrutiny Panel

Appendix 16: VERNO presentations to Scrutiny Panel

Appendix 17: WRAP (Waste and Resources Action Programme): Using compost in Agriculture and Field Horticulture.

Appendix 18: "An Overview of Waste Management: Themes, Issues, Policies - We what we throw away" Presentation to Scrutiny Panel by Professor C. Coggins.

are

[1] Dealing with Jersey's Waste p.2

Appendix 1 p2.

[4] Draft Strategy (full version) pi (5)

<sup>[2]</sup> Public Services Committee Act 13th May 2002

- [5] Babtie Fichtner Development Strategies 5th July 2001
- [6] Written evidence 17th February 2005
- "Dealing with Jersey's Waste" (p5)
- [8] Dealing with Jersey's Waste p.2
- Oral evidence 18th October 2004
- [10] Correspondence EPSC 31st December 2004
- [11] WSSG Minutes 7th December 2004
- [12] Public hearing 18th October 2004
- [13] Chronology Environment and Public Services Committee
- [14] Environment and Public Services Committee Act
- [15] Report to Public Services Committee 26th November 2001
- [16] Planning and Environment Committee Act 22nd April 2002
- [17] Report to Public Services Committee 26th November 2001
- [18] 8th April 2004 Environment and Public Services Committee Act
- [19] Comité des Connétables Minute 20th December 2001
- [20] Comité des Connétables Minute 22nd September 2003
- [21] Oral evidence: 10th January 2005
- [22] Presented to States of Jersey 15th July 2003
- [23] Appendix 1 p2.
- [24] P199/1996
- [25] PSC Act 20th April 1998
- [26] PSC Act 22nd May 1998
- [27] PSD chronology
- [28] PSD chronology
- [29] PSD chronology
- [30] PSD chronology
- [31] PSD Act 22nd October 1999
- [32] Carl Bro April 2000 report p54 para 4.11
- [33] P&R Act 1st June 2000
- [34] PSD Act 16th October 2000
- [35] PSD chronology
- [36] PSD chronology
- [37] PSD chronology
- [38] PSD Chronology
- [39] P&R Act 4th October 2001
- [40] PEC Act 8th November 2000
- [41] PSC Act 26th November 2001
- [42] PSD chronology
- [43] PSD Act 26th February 2002
- [44] PSD submission alternative technologies

- [45] PSD submission alternative technologies
- [46] Environment and Public Services Committee Act