

States of Jersey  
States Assembly



États de Jersey  
Assemblée des États

# Environment Scrutiny Panel

## Funding Waste Recycling



Presented to the States on 3rd December 2009

S.R. 12/2009



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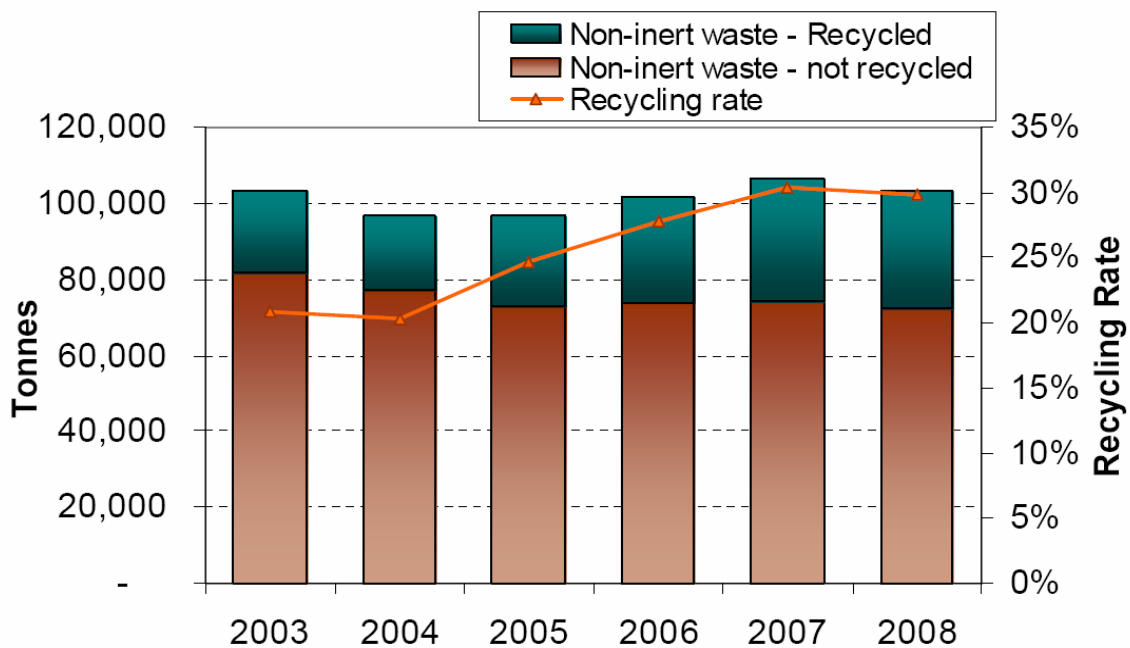
# 1. Introduction

In the 2010 Budget the States will be asked to approve new taxation measures which will be applied to the support of environmental initiatives, including home insulation grants, waste recycling and sustainable transport options.

Members of the Environment Panel felt that was particularly appropriate to investigate the funding requirements for waste recycling as it has been made it clear in successive Business Plan statements that funding for waste recycling was a serious problem for the Transport and Technical Services department and that without additional funding some recycling initiatives might have to be curtailed.

The other environmental initiatives will be examined by the Panel in due course. The draft Sustainable Transport Policy is currently subject to public consultation and the Panel will therefore look more closely at the proposed funding of transport initiatives at a later date. Meanwhile the Energy Efficiency Programme launched by the Planning and Environment Department earlier this year is still in the early stages of development and the Panel felt that a review at this stage would be premature.

Recent years have seen a rapid growth in recycling opportunities in the island. The Department's programme of operations has been reaching out to the population with various schemes including the expansion of Bring Banks which now exist in every parish, and the introduction of kerbside collection schemes, albeit in a limited number of parishes for the time being. The Solid Waste Strategy in 2005 set a recycling target of 32% to be achieved by 2009 .The Department has been successful in reaching this target, as shown in the table below, and this target has now been revised upwards to 36% by 2018.



Source: Transport and Technical Services Dept

The Department is to be applauded for its success which has been achieved to date without the additional £450,000 in funding which the Solid Waste Strategy identified as necessary.

The Panel's review however has revealed two major concerns:

- **The high cost of subsidising the recycling of green waste, paper and cardboard.**

Until now it appears that the Department's focus has been on high tonnage material streams which the public expect to be recycled, such as paper, cardboard and green waste. These materials contribute significantly to the overall tonnage of recycling; however their low market value means that the Department pays a high cost in dealing with them. Paper and card have to be transported off-island to recycling centres in the UK. Green waste is composted on Island but farmers are currently paid to receive the product on their land.

- **The potential conflict between maintaining and expanding these high tonnage recycling streams and the ability to prioritise the suitable treatment of more toxic waste streams.**

The success in achieving recycling targets masks a failure to deal appropriately with the removal from the waste stream of hazardous materials including Waste Electrical and Electronic Equipment (WEEE), fridges and end of life vehicles, all need to be recycled in ways that conform to modern standards. Jersey is currently exceptional in not applying the latest EU Directives. The burning and shredding of these products contributes significantly to both emissions to air from the Energy from Waste plant and to the toxic elements in waste ash from the plant which prevents its recycling. The Department has identified alternative ways of dealing with these products and has commenced implementation of new processing methods; however the operations are costly and require a reprioritization of the Department's budget unless significant new funding is secured.

Finally, the Panel is conscious that its review on waste recycling has been conducted with a narrow focus on the department's immediate funding pressures. It acknowledges however that there is a broader environmental perspective, outside the scope of this review, on the economic value of recycling activities which would take into account the 'carbon price' of the various methods of waste disposal. The Panel suggests that Transport and Technical Services should follow the lead of the UK government and be prepared, as part of a wider policy to tackle CO<sub>2</sub> emissions, to factor in the cost of carbon into their decisions on how to dispose of waste.

Thus, for instance, if the sums showed that CO<sub>2</sub> emissions were saved by shipping and hauling paper to a mill to be recycled, as against burning that same used paper and making paper from new to replace it, then that would become a factor in the decision as that CO<sub>2</sub> has a cost.

In the UK the Prime Minister has instructed Ministers that they should take account of the economic cost of climate change damage when making policy and investment decisions by factoring in the 'shadow price of carbon'. This was set at £25.50 a carbon tonne for 2007, rising annually to £59.60 a tonne by 2050. The price is intended to take into account

the full global costs of the damage carbon causes over the whole of its time in the atmosphere.

Calculating the carbon cost for its various different waste disposal options would clarify the prioritisation choices the Department has to make in its budget allocation and would also lend further weight to the Department's arguments that recycling should receive adequate funding from the States.

**Main Recommendations:**

**Transport and Technical Services should review its recycling priorities and focus its cash limit on updating its treatment of the more toxic elements of the waste stream.**

**Transport and Technical Services should be preparing, as part of a wider policy to tackle CO2 emissions, to factor in the cost of carbon into their decisions on how to dispose of waste.**

## **2. Terms of Reference**

1. To review
  - (i) the current revenue budget arrangements for recycling, including the allocation of temporary additional funding granted in the States Annual Business Plan 2009  
and
  - (ii) the additional capital and revenue budget requirements identified by Transport and Technical Services for 2010 and 2011,
2. To assess
  - (i) the prioritisation of waste recycling projects by Transport and Technical Services;  
and
  - (ii) the possible implications for waste recycling projects if the additional funding through the introduction of environmental taxes was not secured.
3. To consider any other pertinent matters that may arise during the course of the review.

## **3. Panel membership**

The Environment Scrutiny Panel is constituted as follows:

Deputy P.J. Rondel, Chairman  
Connétable J.M. Refault  
Deputy D.J.A. Wimberley  
Deputy P.V.F. Le Claire

Officer Support: M. Haden and M. Orbell

## **4. Methodology**

The Panel conducted a desk study focussing on the additional revenue funding requirements for current waste recycling operations which will be met by new taxes if approved in the Budget 2010.

In June 2009 the Panel requested a report from the Minister on waste recycling initiatives including details of how the £0.5m allocation in 2009 Business Plan was being spent and specific proposals showing how the future additional funding through environmental taxes would be allocated. This report was received in July when the Panel visited the Reuse and Recycling Centre in Bellozanne. The Panel's request for information and the Waste team's response are attached at Appendix 1 of this report.

Further enquiries were made subsequently at officer level.

In October 2009 the Panel held a public hearing with the Minister for Transport and Technical Services focussing on the Department's priorities.

In the following report the Panel has examined in turn each of the budget headings supplied by Transport and Technical Services. The opening box in each section contains summary information on the Department's current revenue budget, the proposed budget if additional funding is approved by the States and the consequence of the funding not being forthcoming.



## **5. Recommendations**

### **1. Overall Recommendation**

Transport and Technical Services should review its recycling priorities and focus its cash limit on updating its treatment of the more toxic elements of the waste stream.

Transport and Technical Services should be preparing to factor in, as part of a wider policy to tackle CO2 emissions, the cost of carbon into their decisions on how to dispose of waste.

### **2. Bring Banks**

Further investment in extending the bring bank system should be deferred for the time being.

### **3. Reuse and Recycling Centre**

The Council of Ministers should restore the proposed Reuse and Recycling Centre to the Capital programme at the earliest possible opportunity.

### **4. Paper and Card**

The Department should not seek at this time to expand its current targets for recycling paper and card.

### **5. Fridge recycling**

Immediate steps should be taken to ensure full compliance with the EU Ozone Depleting Substance Directive 2002. If necessary this should take priority over the processing of less environmentally detrimental waste materials in the Department's revenue budget.

### **6. Waste Electrical and Electronic Equipment (WEEE)**

The Council of Ministers should support renewed efforts by Transport and Technical Services to negotiate with the UK Environment Agency, and if necessary UK and continental suppliers of electrical goods, to allow the Island to participate in the EU scheme for the funding of disposal of WEEE.

### **7. Waste Electrical and Electronic Equipment (WEEE)**

The problem of smaller electrical items being included in household waste should be highlighted in ongoing education/publicity campaigns.

### **8. Home composting**

The Panel believes that this initiative should be supported by an education programme encouraging islanders to make the most of composting possibilities.

### **9. Waste Demolition Timber**

The Department should consider introducing a simple charging mechanism for the reception of demolition timber with a view to minimising amounts

coming to Bellozanne for disposal and encouraging contractors to re-use or recycle waste timber wherever possible.

**10. End of Life Vehicle Recycling** Meeting EU End of Life Vehicle standards should be mandatory and support for the necessary upgrading of the existing scrapyards is therefore recommended.

**11. Cooking oils** The department should investigate the possibilities for providing additional support for the production and marketing of a quality biodiesel product to encourage its take-up by both commercial and private users. This could include consideration of tax incentives or other forms of subsidy which may be appropriate to avoid the need to ship waste cooking oil off island for disposal.

**12. Green Waste recycling** Transport and Technical Services should consider introducing a user pays charge for the public reception of green waste. A single charge could be applied in the form of a small gate fee per vehicle delivering green waste. This proposal could assist in driving down the revenue budget requirement for green waste recycling and also encourage householders to reduce the amount of green waste delivered to the Department.

**13. Green Waste recycling** A review of the current arrangements for disposing of the compost product to agricultural fields should consider the implications of a phased reduction in the payments to farmers and the conditioning of area payments under the Rural Economy Strategy to farmers' acceptance of the product on their fields.

## 6. Allocation of additional £0.5m funding in 2009

In its submission the Department provided the Panel with the following information on how the funding provided in the 2009 States Annual Business plan

*The monies allocated in the 2009 Business Plan were only secure for 2009 and conditional on the approval and introduction of a new environmental tax thereafter, the Department therefore did not consider it appropriate to enter into long term commitments while funding is not secure.*

*It was agreed that the following one off projects to be funded by the additional monies in 2009. Further longer term initiatives will be proposed once future funding is secure. These activities tie in with specific objectives of the Solid Waste Strategy.*

	<b>Project</b>	<b>Cost</b>
1	Domestic green waste operational costs – required due to temporary relocation of domestic green waste site. (Note 1)	£170,000
2	Process backlog of WEEE (waste electrical and electronic equipment) - accumulated in 2008 due to funding shortfall.	£85,000
3	Extra costs of recycling 2009 WEEE	£70,000
4	Cardboard recycling subsidy shortfall – anticipated continuation of poor market conditions in 2009.	£60,000
5	Packaging wood recycling.	£35,000
6	New Recycling Exhibition Trailer	£20,000
7	Parish kerbside project pump prime – if long term recycling funding is secured in 2009	£30,000
	<b>Total</b>	<b>£470,000</b>
	To be allocated	£30,000

*Note 1 – The proposal is to fund the temporary relocation of domestic green waste in 2009 from recycling funding. The cost of funding the reception facility in the long-term will be met from reprioritising the Department's 2010 revenue cash limit.*

### Commentary:

The table shows that the 2009 allocation of additional funds has been used principally to supplement a significant shortfall in the Department's budget for recycling of green waste, packaging wood and cardboard and to deal with a backlog of WEEE (Waste Electrical and Electronic Equipment) accumulated from 2008. Without additional funding in 2010 each of these recycling streams, which are important components of the Island's Solid waste Strategy, would have to be reviewed and possibly withdrawn.

Other than meeting this budget shortfall, the funding has been used for a one-off item of expenditure, namely, the new Exhibition Trailer.

The funding for pump priming the Parish Kerbside recycling scheme has been unnecessary so far as the start up costs for the recently introduced parish schemes have been covered through a sponsorship deal.

**Key Finding**

Several key components of the recycling service are currently underfunded. Without continuation of the temporary funding provided in the States Annual Business plan for 2009, the Department's current revenue allocation for them would not be capable of sustaining, let alone increasing, these recycling activities.

## 7. Collection systems

### 7.1 'Bring Banks'

#### Transport and Technical Services: Waste Recycling proposals

**Current Revenue Budget:** £60,000. There are currently 14 sites across the Island, with a minimum of one site per Parish providing collection facilities for mixed paper, drinks cans, plastic bottles, cardboard and textiles. The cost of providing the service includes emptying the sites delivering direct to the baling contractor, cleaning and servicing the bins, whereas, apart from paper and card, the processing of recyclable materials is cost neutral to the department.

**Current recycling output:** 2,000 tonnes of materials (including paper and card)

**Solid Waste Strategy target:** 3,000 tonnes.

**Additional budget requirement to meet this target:** £80,000 which would be used to

- i. extend the service to 25 sites
- ii add cardboard to existing service (currently only available on 2 sites)

#### Proposed Budget for 2010 if funding proposals

**(a) approved:** Current revenue budget of £60,000 would not be increased. Additional funding from environmental taxes will be used for other priorities.

**(b) not approved:** The budget for this service would be halved to £30,000

**Commentary:** Significant investment has been made since 2005 in expanding the number of collection points around the island in order to bring recycling opportunities within easy reach of all residents wherever they live around the island. The infrastructure has been improved with the installation of multiple bins in selected sites providing comprehensive coverage throughout the Island and enabling the collection of a variety of key materials including paper, card, cans, plastic bottles, textiles and batteries.

The Department conducts regular surveys to measure the use of the sites which provide evidence that their popularity appears to be growing. A key objective for the department is to increase publicity and public awareness of the bring bank locations.

The Bring Bank system is serviced by a private contractor who clears the 14 sites (typically 3 times each week) cleans and services the bins and delivers materials direct to the baling contractor.

Apart from paper and card, the processing of recyclable materials collected at the Bring Banks, is cost neutral to the Department: the export and sale of the materials are undertaken by private firms or charities, which use the revenue to cover their costs<sup>1</sup>.

The Department's view is that a potential income stream from these recyclable products is currently insignificant in view of the low volumes of materials derived within the island coupled with the high transportation costs of exporting materials to UK or continental recycling centres.

Furthermore, dealing directly in the recycling of these materials would require an increased manpower commitment from TTSD which is unlikely to be justifiable in the current financial climate.

The processing of paper and card is also undertaken by a private company but this requires a significant payment to the contractor as the costs considerably outweigh the sales value of the materials. The current budget for this subsidy is £225,000 per annum<sup>2</sup>. In 2009 it was necessary to apply an additional £60,000 to this budget<sup>3</sup> as the market value for cardboard fell due to the recession.

The TTSD stated target is to improve the current output of bring banks from 2000 tonnes to 3000 tonnes. The Recycling Officer told the Panel that achieving this target in a fairly mature market would not be easy as there were diminishing returns from the continual roll out of new Bring Banks with a finite amount of recycling spread over an increased number of sites.

The obvious way to improve the output from Bring Banks would be to increase the number of locations capable of receiving cardboard. However, due to the significant cost of subsidising the recycling of cardboard, this would require a further allocation of funding to this element of the department's budget. In the Panel's view, the recycling of other, more harmful elements of the waste stream should be given greater priority in the allocation of the limited funding available.

**Key Finding:** Significant investment has been made since 2005 in expanding the number of collection points around the Island in order to bring recycling opportunities within easy reach of all residents wherever they live around the island. Further expansion of the Bring Bank service would have the effect of increasing the subsidy payments for paper and cardboard.

**Recommendation:** Further investment in extending the bring bank system should be deferred for the time being.

<sup>1</sup> An explanation of the contract arrangements for individual items is provided in the department's submission.

<sup>2</sup> See further discussion of the budget for paper and card in the section below

<sup>3</sup> This additional funding was made available from the allocation of £500,000 to waste recycling projects in the 2009 States Annual Business Plan

## 7.2 Reuse and Recycling Centre

### Transport and Technical Services: Waste Recycling proposals

**A capital funding requirement** of £1.4 million was identified in the Solid Waste Strategy to allow for additional recycling materials to be accepted and segregated. The Centre would provide improved and more cost efficient reception and segregation facilities, as well as storage facilities for reusable items such as unwanted furniture.

Until recently this project was included in the States capital programme for construction in 2010. This funding, however, was withdrawn by the States in the 2010 Annual Business Plan on the basis that the Centre would be funded from 'environmental taxes'.

**Commentary:** The Panel visited the recently improved Reuse and Recycling Centre at Bellozanne and noted that a reorganisation of collection facilities has enabled the reception of additional recyclable materials and has made public access to the site considerably easier and cleaner.

The current site however is severely constrained and suffers from being split on two sites. There are currently two reception areas for the general public: one for green waste and one for household recycling. This arrangement is inefficient and significantly increases manning costs. A new Reuse and Recycling Centre which combined these two services would reduce departmental costs.

An enhanced Reuse and Recycle Centre would enable the Department to deal with the proposed increased quantities of recycling materials received from other collection services, including Bring Banks and the Parish Kerbside Collection service, It would also enable the Department to promote new recycling initiatives such as the storage and reuse of second hand furniture and the recovery of demolition timber.

**Key Findings** The Panel notes that deferral of this planned development will delay the establishment of an efficient and modern recycling service and hinder the development of recycling initiatives.

The Panel also notes that the Treasury's current taxation proposals for environmental initiatives are insufficient to cover the capital investment required to fund this project. This implies that the proposed development would only proceed if new taxation proposals are brought forward and creates a perception that recycling is not a mainstream function of government. The Panel does not believe that this is acceptable.

In the Panel's view, this decision, which reverses the plans previously agreed in the Solid Waste Strategy and the States Capital Programme, reflects a weakness in the States stated commitment to increasing the environmental protection regime in the Island (Strategic Plan Priority 13).

**Recommendation:** The Council of Ministers should restore the proposed Reuse and Recycling Centre to the Capital programme at the earliest possible opportunity.

### 7.3 Island wide Kerbside Collection Schemes

#### Transport and Technical Services: Waste Recycling proposals

**Current revenue Budget:** There is no separate budget heading for this service. The operational costs are borne by the Parishes themselves. The start up costs (boxes and advertising leaflets to households) have so far been covered by sponsorship arrangements. The cost implications to TTSD of kerbside schemes have so far been confined to providing an outlet for the recycling of paper and cardboard.

**Commentary:** Implementing an Island-wide kerbside collection scheme for dry recyclables, such as paper, cardboard, drink cans, plastic bottles and glass, is considered in the Solid Waste Strategy as a key way of involving a greater number of households and increasing the overall recycling rate.

These schemes require residents to sort and store selected materials for collection on a monthly basis. Household collection schemes for recyclables are now a requirement for all local authorities in the UK. Here in Jersey the scheme is dependent on the voluntary participation of the twelve parishes.

In its 2009 Business Plan the Department set a target of six Parishes to be involved in a Kerbside Collection scheme. Currently, only four parishes have introduced the scheme (St John, St Lawrence, St Mary and Trinity), while a further four parishes have made enquiries at Transport and Technical Services about starting a service<sup>4</sup>.

A survey of all parishes has been conducted by the Panel to ascertain views on the expansion of the scheme. A summary of the comments is attached as an Appendix. The following key points emerged:

- Two parishes (Grouville and St Clement) have indicated that they would not support a Kerbside Collection scheme at present largely because of the increased costs to ratepayers. Both preferred to see further development of the Bring Bank system.
- Some parishes are waiting for current contracts with service providers to come to an end before reviewing their operation with the possibility of introducing a kerbside collection scheme.
- The integration of the large urban parishes, St Helier, St Saviour and St Brelade, would be problematic for Transport and Technical Services in current circumstances as dealing with the increased volume of recyclables would be unmanageable logistically within current resource levels and would put further strain on overstretched budgets for paper and cardboard.

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<sup>4</sup> At a Parish Assembly on 26th November 2009 St Helier agreed to introduce its own scheme in the Spring of 2010.



**Key Finding.** Extending the Kerbside Collection scheme to all twelve Parishes is a long term goal for the Department as it broadens the possibilities for households to engage in recycling activities. However, the further expansion of this scheme at the present time, and in particular the integration of the large urban parishes, would significantly increase the department's costs and challenge the limited infrastructure at the Reuse and Recycling Centre.

## 8. Waste recycling streams

### 8.1 Paper and card:

#### Transport and Technical Services: Waste Recycling proposals

**Current revenue Budget:** £225,000 provides a subsidy to a private contractor who receives and exports materials to UK paper mills. Details of the contract arrangements are provided below

**Additional one off funding in 2009:** £60,000 was provided as an increased subsidy to the private contractor to offset poor market conditions for paper and card in the UK.

**Current recycling output:** 6,000 tonnes

**Solid Waste Strategy target:** The SWS model indicates a peak output of 12,000 tonnes if all proposed activities are delivered.

**Additional revenue requirement to meet this target.** £240,000.

#### Proposed Budget for 2010 if funding proposals

**(a) approved:** £260,000. This would be a small increase on current budget which would assist in addressing ongoing low prices for paper and card. Effectively current levels of recycling would be capped.

**(b) not approved** - The current level of subsidy, which is already insufficient for current volumes of paper and cardboard, would be reduced slightly to £220,000. As a consequence it would be necessary to scale down current volumes of material received by the department.

**Commentary:** The Island produces a large quantity of paper and cardboard in its municipal waste - the annual total arising identified in the Solid Waste Strategy in 2005 was 15,000 tonnes. This is consequently an obvious target for recycling<sup>5</sup> and was one of the earliest schemes subsidised by the States. Since 2001 there has been a tenfold increase in recycling of paper and card. The problem for the Department is that the costs considerably outweigh current sales value. As a result the Department is faced with an increasingly expensive commitment to subsidising this recycling stream.

Since 1995 TTSD have contracted a private firm to operate a paper and cardboard recycling scheme. The materials are received bulked, exported and sold by the private company. The contract is for the company to provide a reception facility for commercial deliveries of paper and card (including from TTSD collection sites) 6 days per week including basic sorting, baling, export and to run the administration of selling the products to UK mills and meeting all regulatory requirements.

<sup>5</sup> The target in the Solid Waste Strategy 2005 is for 50% of available paper and card to be recycled. The department has exceeded the target of 7,000 tonnes being recycled for 2008

Shipping and hauling the product from Jersey to a mainland mill costs between £40-£50 per tonne. A 5 year contract exists (currently in year 2) which includes a subsidy to the company in the form of payment per tonne for paper and card (currently £31 per tonne) based on an annual review of the cost of recycling. The reference for the price review is based on weekly figures published in a national publication called Materials Recycling Weekly averaged over the year. The price paid for the year following the anniversary of the contract is based on the previous year.

The current market for paper and card is low and unpredictable. Average material prices have dropped in the last two years from £67 per tonne for card and £72 per tonne for paper in 2008 to £41 per tonne for card and £51 per tonne for paper in 2009. Prices recently have improved after hitting a low point at the end of 2008.

Despite the economic downturn there is little sign that the quantities of paper and card for disposal are diminishing. The expansion of the Island wide bring system, improvements to the Reuse and Recycling Centre and the addition of new Parishes to the Kerbside Collection scheme have all resulted in increasing tonnage of both paper and card being received by TTSD. As a result, the Department has exceeded its current target of 6000 tonnes of recycled paper and card in the last two years (7,654 tonnes in 2007 and 7,985 tonnes in 2008).

The Department's revised target for this waste recycling stream in 2018 is 12,000 tonnes, double the current target. This could be achieved through further expansion of the bring bank collection facilities, particularly for cardboard, and through new initiatives to encourage the commercial producers to participate in recycling schemes. Achieving this target however will bring increasing pressure on the department's revenue budget.

Given the current financial restraints and the changing global economics relating to recycling the Panel believes that it would be appropriate to call a halt for the time being to the onward expansion of this recycling stream and for the department to reconsider its current strategies.

The Panel is conscious that capping the current level of recycling would mean continuing to send large quantities of paper and cardboard to incineration. This puts a strain on the existing Energy from Waste plant, and militates against the strategy for minimising waste for the new plant at La Collette. However, it believes that burning cardboard would have a minimal environmental impact, compared to other more hazardous materials.

The Acting Chief Officer, TTSD, told the Panel that he agreed with the need for a review; however, he stressed that it was essential not to undermine public confidence in the principle of recycling:

*One of the things that we have strived to do as a department, and been very defensive of, is if we collect something for recycling, we recycle it. Now, I think there is a discussion to be had potentially with the new Energy from Waste plant whereby we challenge whether we should be recycling paper and card, and I think that should be a healthy debate we have annually based on the throughput of the incinerator, the success of recycling and the economy of the Island. But the principle, so far as I am concerned, is if we collect something for recycling, we recycle it. I think the credibility of T.T.S. (Transport and Technical Services) must be upheld.*

*What we can do is not roll out schemes; we can stop schemes and I would rather be upfront with the general public and say: "We cannot afford to recycle cardboard any more; we are going to stop doing it" and we give a date when we stop doing it and then it goes into the waste. But what I do not want to do is keep collecting it as though people think that it is being recycled and then we do not, because our credibility will disappear<sup>6</sup>.*

The Panel welcomes this reassurance. It is conscious there is a degree of mistrust among the general public about the destination of recyclates and the capability of the Department to deal with the quantities of materials it collects. Some people believe that large quantities of materials are simply stockpiled for ultimate incineration. The Panel suggests that the Department should ensure that a clear public message is given countering this perception.

**Key Finding** The Panel applauds the Department's success in developing the recycling of paper and card but is alarmed at the high cost of subsidising this recycling stream. The Panel believes that other, more hazardous waste streams should be given higher priority in the Department's limited budget.

**Recommendation:** The Department should not seek at this time to expand its current targets for recycling paper and card.

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<sup>6</sup> Public hearing 22nd October 2009

## 8.2 Fridge recycling

### Transport and Technical Services: Waste Recycling proposals

**Current Revenue Budget:** £12,000 CFCs are currently extracted from refrigeration condensers; however this accounts for only 10% of the total CFCs in fridges.

**Current recycling output:** 40 tonnes recycled metal; 200kg of recovered CFCs

**Solid Waste Strategy target:** 40 tonnes recycled metal; >1500 kg CFCs; >5 tonnes plastic

**Additional Funding required to deliver SW strategy:** £50,000 to enable export and de-manufacture of fridges for CFC recovery in accordance with the EU Ozone Depleting Substance Directive 2002.

### Proposed Budget for 2010 if funding proposals

**(a) approved:** £50,000.

**(b) not approved:** This service would be delayed.

**Commentary:** Three to four thousand fridges are discarded each year locally. Currently all fridges have CFCs (Chlorofluorocarbons) extracted from the refrigeration condensers (200kg of CFCs recovered); however, this accounts for only 10% of the total CFCs contained in fridges. The remaining CFCs (1500kg) are contained in the insulation in the body of the fridge and are vented to the atmosphere when this is incinerated.

Extracting CFCs from insulation requires a specialist processing operation with an hermetically sealed system which is not available on Island. This was trialled in 2006 with a shipment of 650 fridges to UK. However, continuing this exercise has not been possible within current TTSD budget.

The latest generation fridges use pentane (hydrocarbon) rather than CFC refrigerant, but there may be new legislation on the horizon regarding their disposal also.

**Key Finding:** Jersey is currently exceptional (with other Channel Islands) in non compliance with the European Ozone Depleting Substance Directive which has been in place since 2002. The Panel believes that this is unacceptable.

**Recommendation:** Immediate steps should be taken to ensure full compliance with the EU Ozone Depleting Substance Directive 2002. If necessary this should take priority over the processing of less environmentally detrimental waste materials in the Department's revenue budget.

### 8.3 Waste Electrical and Electronic Equipment (WEEE)

#### Transport and Technical Services: Waste Recycling proposals

**Current revenue budget:** £65,000. This is wholly inadequate to meet the volumes of items for disposal and has led to a significant backlog of WEEE held in storage at Bellozanne.

**One off funding in 2009:** £155,000 was provided to enable the processing of this backlog. This enabled the shipment of 44 trailers loads of television screens and computer monitors to a specialist processing plant in the UK for dismantling in a controlled environment.

**Current recycling output:** 250 tonnes

**Solid Waste Strategy target:** 500 tonnes of WEEE recycled in accordance with the EU WEEE Directive

**Additional funding required to deliver this target:** £100,000

#### Proposed Budget for 2010 if funding proposals

**(a) approved:** £165,000. This service will be fully funded

**(b) not approved:** Even without the additional funding this service will be fully funded, but other services will be scaled down, deferred or stopped.

**Commentary:** The SWS target is to re-use or recycle 60% of WEEE items arising. Before 2007 the majority of this equipment, such as IT equipment and home appliances, was received at Bellozanne for shredding and incineration. This resulted in the release of toxic heavy metals into the atmosphere and the contamination of the bottom ash within the Energy from Waste plant preventing its recycling as construction aggregate.

Due to its complex nature and the lack of a local market for most of this equipment, the recycling process requires significant financial input from TTSD. TTSD have investigated the possibility of outsourcing this service to a private contractor; however following a tendering process this solution proved to be too expensive. The current operation involves a local contractor to deal with on island handling while shipping and dealing with the UK reprocessor is handled by the Department.

In 2008 TTSD processed 148 tonnes of materials which is nearly 100 tonnes short of the current SWS target of 250 tonnes. With new funding TTSD hopes to double the existing target.

There are two categories of WEEE; firstly, waste display screens (TV's and monitors) which require palletising and export to a specialist recycling facility in the UK where a gate fee (£1.70 per unit) is paid for each screen processed.

The cost of exporting these items is increased by the requirement for a special hazardous waste licence from the local waste regulator and the UK Environment Agency to ship these items across an EU frontier.

For non-display WEEE such as videos, computers, music centres etc., TTSD have recently set up a dismantling system with HM Prison which results in items being stripped down into metals, plastics and circuit boards. Some of these commodities have a precious metal content and are hoped to provide a sales revenue – the level of this income will not be known until the end of the year when enough of the materials will be segregated to justify a shipment.

Since 2007 all large WEEE items, including all TVs and computer display screens, have been diverted from incineration. Due to budget limitations a large backlog of items has been built up in storage awaiting transportation; however, additional funding provided in 2009 has enabled this problem to be addressed in the short term.

Many smaller household electrical items, such as curling tongs and hair dryers may escape the recycling process because they are included in household waste. The Panel believes that this problem will be addressed through continuing education about responsible disposal and recycling.

**Disposal charges** The EU<sup>7</sup> has recently introduced charging mechanisms to ensure that manufacturers of electrical electronic and electrical equipment have responsibility for the costs of recovery and treatment of goods at the end of their life. Currently Jersey does not participate in this scheme. Consequently TTSD bears the full cost of disposing of these items, despite the fact that a cost for their disposal has already been applied by manufacturers prior to their importation to the island.

TTSD has investigated the possibility of Jersey participating in this scheme with the UK Environment Agency. Under such a scheme Jersey would be responsible only for transportation costs and be relieved of the gate fee at the recycling plant. This proposal however was rejected by the Environment Agency due to Jersey's position outside the EU and currently further attempts are being made by the Department to pursue this source of funding.

An alternative funding solution would be to impose a local charge, or environmental tax, on imported electrical and electronic goods to cover the expense of disposal (estimated for display screens to be between £12 - £15 per unit<sup>8</sup>). However, this would mean that local consumers would be in the position of having to pay the disposal charge twice, as the manufacturers will already have included the costs of the disposal charge in the purchase price.

A further factor to consider would be the administration of such a charge which would fall to the Customs Department. Previous Scrutiny Reviews<sup>9</sup> have revealed the manpower and resource pressures already faced by this department. It is likely that the introduction of such a scheme would require a substantial level of resources. It is to be noted that the States, in considering the level of de minimis waiver to apply to the payment of the Goods

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<sup>7</sup> Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC

<sup>8</sup> Source: Transport and Technical Services Minister at Public hearing on 22nd October 2009

<sup>9</sup> SR 1/2008 & SR 14/2008

and Services Tax (GST) on the importation of goods, decided to adopt a high waiver in order to avoid administrative expenses.

As a result, items under £400 in value bought over the internet and imported into the Island currently escape Customs duty on importation. The disposal charge on electronic and electrical items would however be applicable to retail items thus disadvantaging local suppliers.

**Key Finding:** The Panel agrees that removal of WEEE items from the waste stream is imperative and should be prioritised above other services if necessary. It is supportive of the principle that the cost of disposal should be included in the purchase price of such items and believes it is unfair that Jersey consumers effectively already pay this charge but the Island is unable to participate in the existing EU disposal scheme.

**Recommendation:** The Council of Ministers should support renewed efforts by Transport and Technical Services to negotiate with the UK Environment Agency, and if necessary UK and continental suppliers of electrical goods, to allow the Island to participate in the EU scheme for the funding of disposal of WEEE.

The problem of smaller electrical items being included in household waste should be highlighted in ongoing education/publicity campaigns.



## 8.4 Home composting

### Transport and Technical Services: Waste Recycling proposals

**Current Budget:** £6,000 used to promote the sale of subsidised home compost units at £10 each.

**Current recycling output:** Over 3,000 subsidised bins provided; estimated 500 tonnes diverted from the waste stream

**Solid Waste Strategy target:** up to 1,000 tonnes diverted from the waste stream

**Additional Funding required to deliver this target:** £12,000 to continue this service

### Proposed Budget for 2010 if funding proposals

**(a) approved:** £12,000.

**(b) not approved:** This service would cease

**Commentary:** Over 3000 composting bins have been sold to Islanders over a five year period in a partnership arrangement with garden centres. The department estimates that this has helped to divert an estimated 500 tonnes of green waste which would otherwise have been delivered to the green waste public reception facility.

As discussed below, the Panel is concerned at the costs of processing green waste and believes that measures which reduce the volumes required to be processed are to be encouraged.

**Recommendation:** The Panel believes that this initiative should be supported by an education programme encouraging islanders to make the most of composting possibilities.

## 8.5 Waste Demolition Timber

### Transport and Technical Services: Waste Recycling proposals

**Current revenue Budget:** £22,000 for recycling of pallet boards and packaging wood recycling

**One off funding in 2009** £35,000 was provided to enhance packaging wood recycling

**Current recycling output:** 1,000 tonnes diverted from waste stream

**Solid Waste Strategy target:** to expand an initiative to separate, sort and reuse demolition timber waste in DIY.

**Additional budget requirement** £20,000

**Proposed Budget for 2010 if funding proposals approved:** This activity will not be funded even if the environmental tax package is approved as other services will take priority

TTSD schemes have previously focussed on recycling of pallet boards and packaging wood for shredding and export. Working with two private companies who will collect boards for reuse TTSD have now substantially reduced the amount coming into Bellozanne for recycling and their costs for this service. The Recycling Officer told the Panel that the introduction of a small charge (£1 per board) had effectively diverted boards to the companies collecting them.

TTSD now have plans to develop sustainable recycling of over 2000 tonnes of demolition waste wood which currently is incinerated each year. A partnership arrangement with Acorn Industries has been discussed. However, competing priorities mean that this scheme cannot be funded from departmental cash limits at this time.

In the Panel's view, the Department should apply innovative thinking to developing a solution rather than delay their planned scheme. Consideration should be given to introducing a charging mechanism for the reception of demolition timber. This could have the primary effect of encouraging demolition firms to reduce the amount of timber delivered to Bellozanne and to carry out their own recycling of waste timber. It would also provide additional funding for the department.

Members felt that there may also be a case for a bring and collect centre where unwanted timber could be offered for others to take away.

**Key Finding:** Recycling of demolition timber would reduce quantities going to incineration or landfill, some of which may include treated or other contaminated wood products. Reducing the amount of such material going to Bellozanne would potentially be beneficial to the environment.

**Recommendation:** The Department should consider introducing a simple charging mechanism for the reception of demolition timber with a view to minimising amounts coming to Bellozanne for disposal and encouraging contractors to re-use or recycle waste timber wherever possible.

## 8.6 End of Life Vehicle Recycling

### Transport and Technical Services: Waste Recycling proposals

**Current Budget:** nil. This project has emerged since the development of the Solid Waste Strategy.

**Additional Budget request:** £100,000 to upgrade the existing scrap metal operation to meet EU End of Life Vehicle Directive standards

**Target:** removal of hazardous liquids and chemicals from over 2000 vehicles a year

### Proposed Budget for 2010 if funding proposals

**(a) approved:** £100,000

**(b) not approved:** This project would be delayed

**Commentary:** An average of eight vehicles are discarded each working day and are currently not de-polluted and recycled in line with best practice, resulting in hazardous elements from fluids and chemicals being sent for incineration.

The current dismantling exercise includes the removal of hazardous products (such as sump oil and gearbox oil) from cars at 3 or 4 points whereas the EU Directive requires 14 or 15 including the air conditioning system. Moving to compliance would require the development of a workshop facility with more technical equipment and would increase the company's costs.

The Recycling officer explained that the modernisation of the scrapyards would be underwritten by TTSD:

*The financial relationship that we have with the company is fairly complex but in budgeting this we knew that there would be extra costs involved here. There is clearly debate to be had as to whether the company absorbed that or whether we support those costs. But their costs are tied in very much with the value of scrap metals which fluctuates enormously and so in times when the value is high as it is reasonably at the moment, it perhaps would be reasonable to expect that they could provide that service from their own budgets, but in more difficult times there would be a cost which would inevitably come back towards the States.*

The Panel has not seen the details of this arrangement which have yet to be finalised.

**Key Finding** Currently hazardous fluids and chemicals from scrap vehicles are being sent for incineration. The Panel considers that this is unacceptable.

**Recommendation:** Meeting EU End of Life Vehicle standards should be mandatory and support for the necessary upgrading of the existing scrapyards is therefore recommended.

## 8.7 Cooking oils

### Transport and Technical Services: Waste Recycling proposals

**Current revenue Budget:** £2,000 enables collection of commercial cooking oil for biodiesel production

**Current output:** 200 tonnes

**Additional funding required to deliver SW strategy:** £20,000 to fund the annual cost of exporting waste commercial cooking oil to the UK. (This includes the cost of an export licence of approximately £4,000.)

### Proposed Budget for 2010 if funding proposals

**(a) approved:** £22,000

**(b) not approved:** The service would cease.

The Department provides a free service to commercial catering operations in order to avoid the disposal of cooking oil into the public sewer. 200 tonnes of cooking oil a year are collected by a private contractor.

The Recycling Officer informed the Panel that attempts in 2008/9 to make this service cover its own costs through local sales of biodiesel had not been successful. He explained that the market had been resistant to the product despite a small cost advantage in the cost of the fuel. TTSD had examined the possibility of using biodiesel fuel in its own operations, for example in its fleet of vehicles and in powering its animal carcass incinerator but had concluded that both logistical difficulties and cost factors militated against its use.

Consequently, it had been decided to revert to shipping the majority of the waste oil to the UK retaining only a small amount of local biodiesel production. £20,000 is required to continue subsidising the costs of the private operator who delivers the service.

**Key Finding:** Efforts to supply biodiesel fuel locally have not been commercially successful thus far. However, it is understood that elsewhere biodiesel has been more extensively marketed and the potential for wider local use remains. If marketing difficulties can be overcome the fuel offers significant environmental advantages and provides for a sustainable use of a waste product that is otherwise costly to dispose of.

**Recommendation:** The department should investigate the possibilities for providing additional support for the production and marketing of a quality biodiesel product to encourage its take-up by both commercial and private users. This could include consideration of tax incentives or other forms of subsidy which may be appropriate to avoid the need to ship waste cooking oil off island for disposal.

## 8.8 Green Waste Recycling

### Transport and Technical Services: Waste Recycling proposals

**Current Budget:** £790,000. TTSD provides a free reception service for both commercial and domestic green waste deliveries. Agricultural green waste is dealt with at source by farmers. The budget includes payments to farmers who receive the compost product which is spread on agricultural land.

**Additional One off funding in 2009:** £170,000 was provided to cover operational costs of temporary relocation of domestic green waste reception. (£97,000 for staff, £22,000 for non-staff costs and £52,000 for leasing costs of vehicles)<sup>10</sup>.

**Current recycling output:** 12,000 tonnes of materials which is processed into compost at La Collette. 80% goes to agricultural land; 20% is sold as premium quality (PAS 100) compost.

**Solid Waste Strategy target** >20,000 tonnes

**Additional funding required:** £200,000 to fund the continuation of public reception facility

**If funding proposals are not approved:** The public reception of green waste would be withdrawn.

**Background:** Green waste is a very significant part of the total recycling rate in the Island: in 2008 11,200 tonnes were received at La Collette for composting. This was a fall from 15,000 tonnes in the previous year. The target in the Solid Waste Strategy is to reach 20,000 tonnes by 2018.

TTSD has made significant investment in recent years in the development of a processing operation at La Collette where green waste is converted into compost products, 80% of which is used as a soil improver on agricultural land, the remaining 20% being sold as premium quality compost. Materials received are shredded and composted using an open windrow system. This process has been the subject of nuisance complaints from neighbouring residents who have complained about odour from the site. TTSD have been developing an odour management strategy to solve this problem and are currently investigating technological options. A capital budget of £4.21 million has been allocated for this purpose.

The Acting Chief Executive told the Panel that his department had spent four years reviewing the location of green waste operations and had investigated 32 sites across the island, concluding that La Collette was the 'least worst' option. This issue is beyond the scope of this review which has focussed on the annual revenue costs of the green waste operation.

<sup>10</sup> Source: Transport and Technical Services Ministerial Decision of 20th March 2009 (MD-T-2009-0033)

## Revenue Costs

The Panel was concerned to note the significant annual revenue costs for the composting process, which amount to £790,000. In addition to this, a further £200,000 per year is required from 2010, to be funded from new taxation measures, in order for the Department to continue to operate a separate public reception facility in compliance with the recommendations of the La Collette Hazards Review Group. Following the Buncefield disaster the Hazards Group determined that publicly accessible facilities were unsuitable for the La Collette area; only commercial operations are now allowed to deliver to that site.

As a result of this decision a temporary public reception facility has been established at Compound 6 Bellozanne Valley. Green waste is collected here and transferred at the end of each day's operation to the composting facility at la Collette. In June 2009 Transport and Technical Services was granted planning permission for the development of Warwick Farm as a more suitable temporary location<sup>11</sup> until a permanent site is found.

In 2009 TTSD was able to allocate £170,000 revenue funding for the public operation from the money granted in the States Business Plan for recycling initiatives. However, in order to continue this service ongoing revenue funding is required and the Department intend to allocate £200,000 for this purpose if the Treasury's tax funding proposals are approved in the 2010 Budget.

### Key Finding

The Acting Chief Executive informed the Panel that his department was to undertake a fundamental spending review on green waste to examine all aspects of its current operations. The Panel believes that a comprehensive review of spending on the green waste operation is essential. The Panel looks forward to the opportunity to scrutinise the outcome of such an investigation. The Panel would like to see the following two key issues addressed within this review: (a) user pays charges for domestic green waste (b) Current subsidies paid to farmers for accepting the compost product on their land.

#### a) User pays charges for domestic green waste

Currently both commercial and public green waste is accepted free of charge. However, in the States Annual Business Plan 2010 the introduction of 'user pays' charges for commercial green waste was approved, targeted to raise £60,000 per annum. TTSD are currently examining how these charges might be implemented. It has been suggested that a weighbridge would be required; this would represent an unbudgeted expenditure of £100,000, substantially higher than the fees expected to be recovered in a year's operation. The Acting Chief Executive explained to the Panel that the rationale for applying this user pays charge was currently under investigation in his department.

<sup>11</sup> In September 2008 the Director of Property Holdings indicated that the Warwick Farm site could be considered only for a three year period. A capital budget of £320,000, minus the cost of establishing the temporary facility at Bellozanne which was approximately £55,000, is available to establish this facility.

<sup>13</sup> Report of the Working Party on Composting in Jersey, 2006

The Panel believes that introduction of user pays charges is likely to have a beneficial effect by reducing the amount of commercial green waste delivered to La Collette and therefore assisting the Department in driving down its revenue costs. Commercial gardening businesses will be encouraged to develop composting sites on land where the waste originates. Such businesses have stated in the past to the Working Party on Composting that they would actually favour less use of the composting facility at La Collette: they found that delivering green waste to this site was proving to be unproductive use of time and less profitable to them<sup>13</sup>.

In the Panel's view, consideration should also be given to introducing a user pays charge for the public reception of green waste. It is suggested that an expensive weighbridge should not be necessary for this purpose. Instead, a single charge per vehicle could be applied in the form of a gate fee for delivering green waste. The Panel believes that this measure could both assist the Department in reducing its revenue budget requirement and encourage householders to develop alternative solutions, such as home composting or shredding garden waste at source.

It has to be recognised however that while general waste collection in the Island remains free of charge there might be negative consequences to applying a charge for green waste collection; in order to avoid paying a fee, householders might dispose of their green waste through fly tipping or place green waste in black bags for collection as part of the routine household waste collection. The Acting Chief Officer, TTSD, explained to the Panel in a public hearing that such actions had potentially dangerous consequences, as experienced in the past at Bellozanne:

*One of the reasons we have always advocated green waste recycling and pushed it is because green waste when it goes into black bag waste and then is needed to be stored for any period of time was one of the problems we had at Bellozanne probably 10 to 15 years ago with the fires. The compostibility of the material instigates fires and makes the waste far more unstable. Hopefully with the new Energy from Waste plant, the mountains of waste we will not see again but it is something that we have got to bear in mind. If we had to do that from 1st January we would finish up putting the Island I think in a high risk scenario<sup>14</sup>.*

In the same hearing, the Panel suggested that Parishes or private operators such as Garden Centres might be encouraged to develop smaller composting facilities. However, this was discounted by the Acting Chief Officer:

*We as T.T.S. (Transport and Technical Services) would love the Parishes to take on board composting of green waste but the chances of that happening, the nuisance elements of it, the processing cost, the processing machinery, I do not think you can scale it down much further than what we have got now and save money<sup>15</sup>.*

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<sup>14</sup> Public Hearing dated 22nd October 2009

<sup>15</sup> The Comité des Connetables responded unfavourably in 2005 to a proposal for the establishment of devolved sites. The Comité was also consulted by Transport and Technical Services in June 2008 with regard to an additional green waste collection facility but offered only one site as a possibility. This proved to be unsatisfactory due to the requirement for considerable infrastructure investment.



The possibility of additional satellite sites for public green waste reception elsewhere in the Island has been explored previously by TTSD. TTSD issued expressions of interest in December 2006 and January 2007 for private sites for a compost facility and also considered six States sites. Over 40 locations, including both States owned and private sites, were considered for public green waste collection sites and submitted an assessment process. The result was that the private sites scored poorly in relation to the States owned sites. Problems identified included location within the Countryside Zone and proximity to residential properties, the requirement for additional access roads, reception areas and storage areas.

The assessment process carried out by Babbie Fichtner established that the area required for composting and maturation accounts for only a small proportion of the total site area, much of the space is required for vehicle reception and manoeuvring.<sup>16</sup>

There have also been attempts in the past to contract with farmers to set up satellite composting facilities<sup>17</sup>. These facilities failed very quickly as the farming industry was unable to allocate time required to turn the compost regularly and produce high quality material. The consequence was unacceptable piles of green waste with potential pollution emanating from leachate from the sites contrary to the Water Pollution legislation.

A report was prepared by ADAS in 1996 for the Agriculture and Fisheries Committee which highlighted the issues associated with satellite composting operations. The report recommended the establishment of a centralised facility. However, the Panel notes that both the current temporary operation in Bellozanne valley and the (also temporary) replacement at Warwick Farm involve completely clearing all collected waste at the end of the working day. This appears to be a very practical solution which potentially could be applied successfully at any suitably-sized site with reasonable access for vehicles; the Bellozanne facility is particularly compact and with the possible exception of manning requirements would appear to be a very cost-effective one. With this in mind, members are inclined to wonder whether an expensive permanent establishment involving storage and on-site processing facilities is necessary at all, especially if members of the public could be encouraged to take responsibility for dealing with more of their own green waste at home.

**Recommendation:** In the Panel's view, TTSD should consider introducing a user pays charge for the public reception of green waste. A single charge could be applied in the form of a small gate fee per vehicle delivering green waste. This proposal could assist in driving down the revenue budget requirement for green waste recycling and also encourage householders to reduce the amount of green waste delivered to the Department.

<sup>16</sup> For more detailed explanation of the site assessment see the reports attached to MD-T-2009-0004 and MD-T-2009-0033

<sup>17</sup> Report to Environment Panel on comments in response to P.258.2005

**b) Current subsidies to farmers for accepting the compost product on their land**

TTSD require an outlet to dispose of the product of their composting operation. Only a small proportion (20%) is sold as a premium product through garden centres achieving a low level of income<sup>18</sup>. TTSD has consequently developed an arrangement with farmers for the disposal of the bulk of the compost product which is spread as a soil improver on agricultural land.

No income is generated from this arrangement; in fact considerable costs accrue. The department pays £10 per vergée to farmers for accepting the product and bears the cost of both transporting the materials from La Collette and spreading the compost on the fields (£60 per vergée). The cost of this operation for the year 2009 to the end of October amounted to approximately £126,000<sup>19</sup>.

The Acting Chief Officer explained that the outlet for the composting product was vital to the department. He claimed that the current arrangement was of mutual benefit to both parties:

*What we cannot afford to do is to lose that market as such for this material because we need some tension in the market and we need to have the relationship which both parties feel as though they get something out of it<sup>21</sup>.*

He explained why the Department was prepared to pay the full costs of hauling and spreading the compost:

*It is based on a unit cost per cubic metre of compost, regardless of which area of the Island it goes in because basically the composting application is dependent to where the potatoes have been planted and the crop rotation. One of the reasons we administer that is because we have tried to control and make sure in terms of quality that the correct amount of compost is being put on the correct fields because you should only apply one nitrogen load per annum or one compost load per annum. We make sure that it is not dealt with in a pile it up in one field scenario which could happen if we were not in control of it<sup>22</sup>.*

The Acting Chief Officer was asked whether farmers would be prepared to continue taking this product if they did not receive a payment. He said:

*It will be an interesting discussion and my goal has always been to cut the subsidy to zero over time because I think the benefits of the green waste back on to the agricultural land in the medium term far outweigh the [risks] ... there is a perceived risk because the compost that goes out to agriculture is immature i.e. it has not been through the full maturation process. It has been through a pathogen kill*

<sup>18</sup> Sales of this product have fallen steadily since 2005, when income was £52,000, to £39,800 in 2008.

<sup>19</sup> The Department also has a similar contract arrangement with farmers for the disposal of bio solids in the form of sludge cake to agricultural land for additional forecast cost of approximately £58,000 to the end of October 2009

<sup>21</sup> Public Hearing dated 22nd October 2009

<sup>22</sup> Public Hearing dated 22nd October 2009

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*process but not the full maturation. So there is a small risk to the farmer but they prefer the compost to be slightly immature because it helps with the soil<sup>23</sup>.*

In a subsequent radio interview the Minister warned that if the payment arrangements were withdrawn, farmers might refuse to take the product. In that case TTSD would have to find alternative ways of disposing of their compost and would have to pay for its disposal elsewhere, possibly off island which would incur further costs.

The Panel consulted a leading grower informally on this question. He commented that the payment for accepting the agricompost was fair in view of the co-ordination required on the part of his operation to manage the process of spreading the product on his fields. He commented that he was not actively looking for such compost which he considered to be of marginal benefit and would be likely to cease the arrangement if required to pay for the product.

**Key Finding:** The Panel believes that the payment to farmers is in effect a supplementary subsidy to the agricultural industry in addition to that already provided by the Economic Development department in the form of area payments of £37 per vergée, under the Rural Economy Strategy. Given the recent transition in farming towards fewer and larger units, the Panel questions whether these additional payments for taking the soil improver are still appropriate. It suggests that consideration could be given to whether the farmers' agreement to accept this compost on their fields might in future be linked to the area payments.

**Recommendation:**

A review of the current arrangements for disposing of the compost product to agricultural fields should consider the implications of a phased reduction in the payments to farmers and the conditioning of area payments under the Rural Economy Strategy to farmers' acceptance of the product on their fields.

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<sup>23</sup> Public Hearing dated 22nd October 2009

## 8.9 Waste Prevention, Education and Awareness Raising

**Current revenue Budget:** £12,000 provides educational materials, promotional leaflets, advertising, school activities and attendance at public events (does not include staffing costs)

**One off funding in 2009:** £30,000 which enabled the purchase of a new recycling exhibition trailer in partnership with Eco Active campaign.

**Additional Funding required to deliver SW Strategy:** £38,000 would enable delivery of an enhanced education and awareness programme which is considered vital to the encouragement of cultural change necessary to raise recycling targets to 36% by 2018.

**Proposed Budget if environmental taxes approved:** £30,000.

**If environmental taxes are not approved:** Spending would remain at the current level: £12,000.

Raising the levels of recycling activity to the target set for 2018 will require a significant increase in engagement both from the general public and commercial operations. The Department's programme of education and awareness raising includes school visits, attendance at public events and media advertising to ensure that the recycling and energy conservation message reaches as broad an audience as possible.

In a presentation to the Panel the Department demonstrated that it has been successful in diversifying recycling activities in recent years. However, to achieve full use of the available infrastructure the Department must continue to promote public awareness of its facilities.

The Kerbside Collection scheme is an example of an operation which can play a vital part in educating householders in the possibilities for recycling. However, as noted above, access to this scheme is currently limited to four rural parishes.

The education programme is currently delivered by a small team consisting of one officer with the assistance of the Recycling Officer. The Department has joined forces with the Environment Department's Eco-Active campaign in order to share costs and manpower particularly at weekend events.

The Recycling Officer informed the Panel that W.R.A.P. (Waste and Resource Action Programme), the UK government agency for recycling and resource efficiency, recommended a spend of £1.50 per household per year on education and awareness on recycling alone. For the States to meet this target a substantial increase in budget would be required.

**Key Finding** The Panel agrees that education and awareness of recycling initiatives is important to the success of the SWS and therefore supports the application of funding for this purpose. However, members feel that funds should be carefully targeted to support specific initiatives to obtain the best results.

**Recommendation:** The department should continue to use existing funding for education regarding current recycling initiatives. Any new funding (if available) should be directed towards specific objectives needing wider support, such as encouraging the public to take up home composting, make more use of bring bank facilities, and separate waste electrical appliances from household refuse.

## **Appendix 1 - Waste Team Submission to the Environment Panel**

### **Information requested by the Panel**

- 1 A copy of the current **Business Plan** for the Waste Recycling section
- 2 **A financial report** covering:
  - i. Specific details of how the £0.5m allocation in 2009 Business Plan is to be spent this year
  - ii. Specific proposals showing how the requested additional funding in 2010 and 2011 would be used
  - iii. Previous year's actual departmental spending on waste recycling
  - iv. Previous years' and current departmental income from all recyclable materials (including Tipping charges at La Collette) giving evidence of trends in prices being achieved for recyclables
- 3 **Costs and benefits relating to the following schemes:**
  - The parish kerbside collection scheme including the extent of the support provided by the Department and the extent to which a market exists for recyclable materials collected in this process
  - The inert waste recycling scheme at La Collette and the extent to which the States currently subsidises this scheme
  - The scheme for processing hazardous waste electrical and electronic equipment
- 4 **General issues related to recycling:**
  - Current progress in reaching overall recycling targets
  - The state of the market for the range of potentially recyclable materials, including those currently accepted at the recycling centre as well as others which may not currently be recycled locally, together with identification of materials which are considered uneconomic to recycle,
  - The market for the disposal of cars and their components and other scrap metal
  - The extent to which the States provides financial subsidies, if any, to private recycling operations and initiatives.
  - The feasibility of possible alternative funding mechanisms eg whether a charge might be levied on imported goods (eg TVs, cars, fridges) to fund their final disposal
  - Potential impact of a States decision not to provide additional ongoing funding for the identified recycling initiatives
  - Further potential recycling initiatives which may have been considered but are currently unfounded, or which could be considered in the future.

Transport and Technical Services Business Plan 2009 - Recycling Projects						
Key Objective	Key Performance Indicators	Target	Imp Year	Key Risk	Dept key objective	
19. Implement the solid waste strategy to minimise and manage waste produced.	<u>Recycling Projects</u>					
	Increase Island's recycling activities as follows: <ul style="list-style-type: none"> <li>• Paper and cardboard</li> <li>• Metal packaging</li> <li>• Timber</li> <li>• Plastic bottles</li> <li>• Glass</li> <li>• Aggregates</li> <li>• Textiles</li> </ul>	by December 2009 achieve: 7,800 tonnes 200 tonnes 1000 tonnes 50 tonnes 7,000 tonnes 60,000 tonnes 570 tonnes	2009	Change in market for recyclates  Fail to develop major infrastructure such as public green waste reception  Funding diverted to higher priorities	1	
	Removal of high emission waste from EfW plant in order to minimise pollution	250 tonnes of WEEE (Waste Electrical and Electronic Equipment) and batteries diverted				
	Number of Parishes operating scheme	6				Lack of support from Parishes to implement kerbside collection.
	Overall recycling rate	32% by 2009				Unable to achieve 32% unless permanent funds available
Compliant shipment and disposal of backlog of hazardous waste	Q1 2009			Increase in quantity of hazardous waste leads to shortage of storage space  Lack of funding		

**Waste's response to the questions raised by the Environment Scrutiny's Panel in its letter dated 17<sup>th</sup> June 2009**

- ***A financial report covering:***

- i. Specific details of how the £0.5m allocation in 2009 Business Plan is to be spent this year.*

Recycling

The monies allocated in the 2009 business plan were only secure for 2009 and conditional on the approval and introduction of a new environmental tax thereafter, the Department therefore did not consider it appropriate to enter into long term commitments while funding is not secure.

It was agreed that the following one off projects to be funded by the additional monies in 2009. Further longer term initiatives will be proposed once future funding is secure.

	<b>Project</b>	<b>Cost</b>
1	Domestic green waste operational costs – required due to temporary relocation of domestic green waste site. (Note 1)	£170,000
2	Process backlog of WEEE (waste electrical and electronic equipment) - accumulated in 2008 due to funding shortfall.	£85,000
3	Extra costs of recycling 2009 WEEE	£70,000
4	Cardboard recycling subsidy shortfall – anticipated continuation of poor market conditions in 2009.	£60,000
5	Packaging wood recycling.	£35,000
6	New Recycling Exhibition Trailer	£20,000
7	Parish kerbside project pump prime – if long term recycling funding is secured in 2009	£30,000
	<b>Total</b>	<b>£470,000</b>
	To be allocated	£30,000

*Note 1 – The proposal is to fund the temporary relocation of domestic green waste in 2009 from recycling funding. The cost of funding the reception facility in the long-term will be met from reprioritising the Department's 2010 revenue cash limit.*

These activities tie in with specific objectives of the Solid Waste Strategy.

- ii. Specific proposals showing how the requested additional funding in 2010 and 2011 would be used*

The funding for the replacement Energy from Waste plant has been agreed by the States on the basis that the final capacity of the plant will not exceed 105,000 tonnes of waste. In order to achieve this, recycling rates must increase from the target of 32% by 2009 set in the Solid Waste Strategy to 36% by 2018. Critical to achieving and perhaps exceeding this more challenging target is the implementation of an Island-wide kerbside collection system.



The Island wide bring bank system will require considerable expansion and an increase in the capacity Re-use and Recycling Centre will be required. Finally the commercial sector must recycle more waste than is achieved currently; this will require investment in facilities, education and possible legislative changes.

**iii. Previous year's actual departmental spending on waste recycling.**

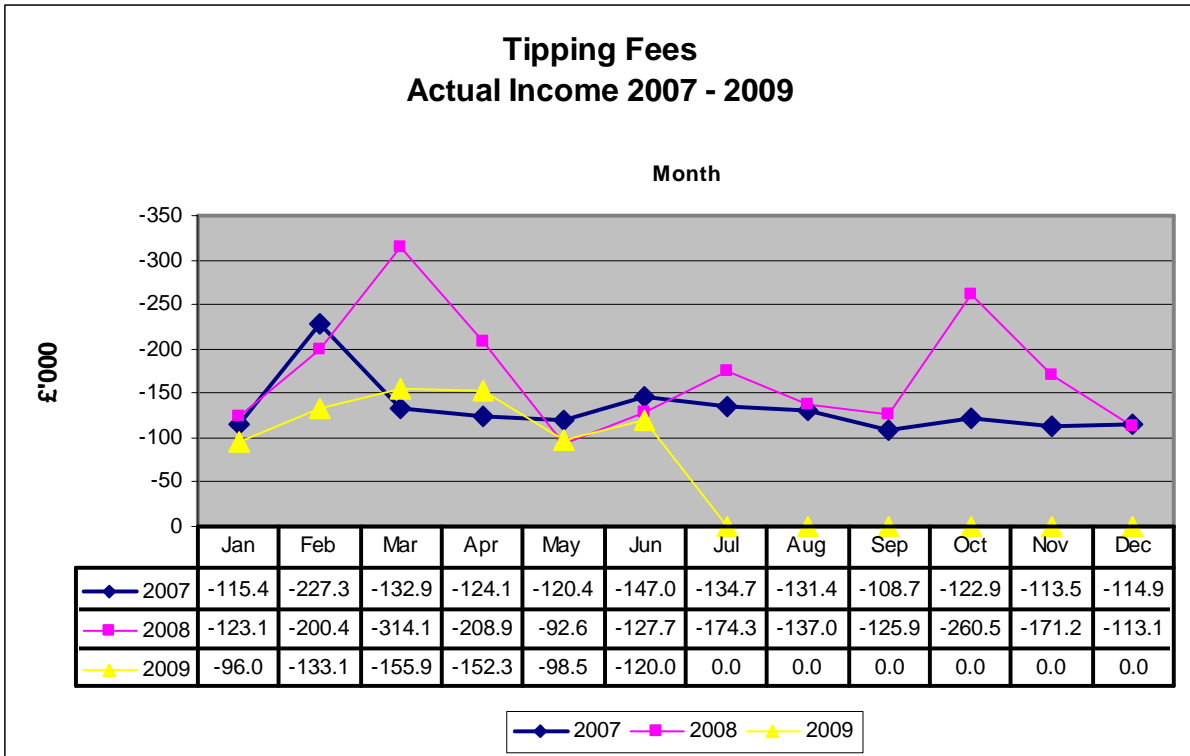
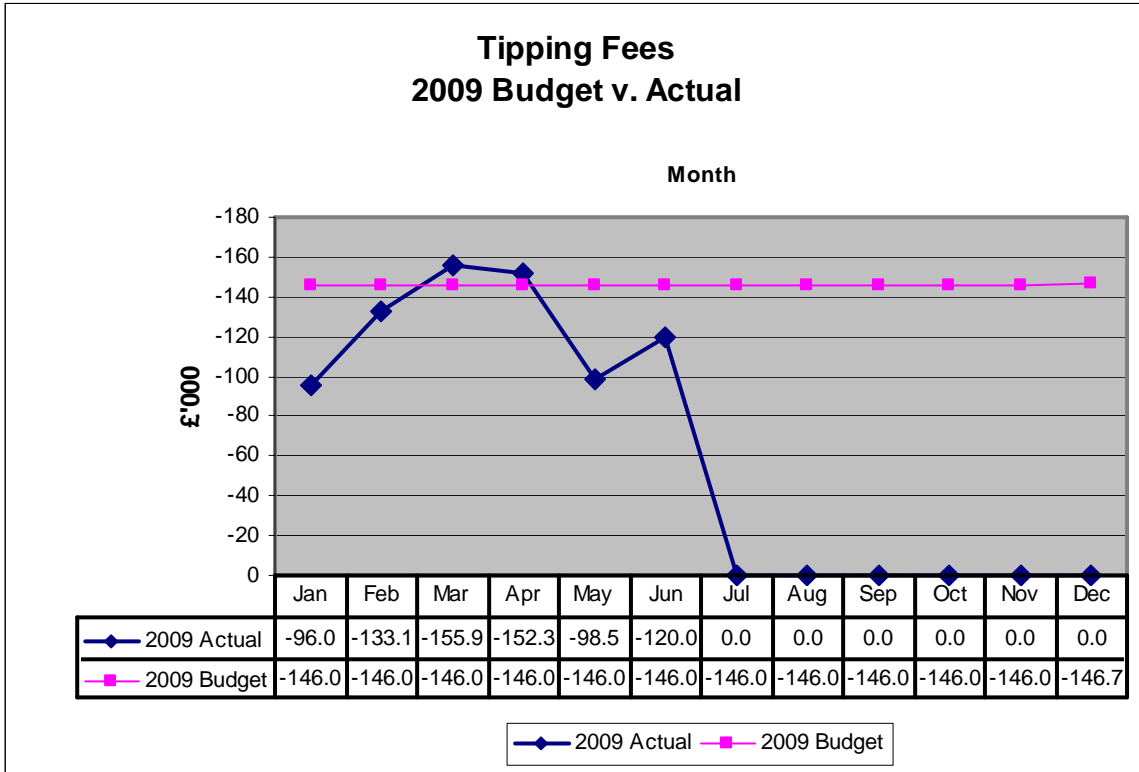
<b>Total Waste recycled</b>	<b>2007 Tonnes</b>	<b>2008 Tonnes</b>	<b>2008 Actual Costs £</b>
<b>Waste recycled</b>			
Green Waste Received	14,997	11,239	764,000
Paper and cardboard	7,654	7,985	348,000
Electrical and Electronic Equipment	-	148	175,000
Packaging Wood	1,000	1,000	85,000
Fridges			27,000
Oil			21,000
Batteries	-	5	2,000
Plastic	484	503	(0)
Aluminium cans	16	29	(0)
Textiles	507	499	(0)
Glass	7,719	8,490	(0)
Household Metals	-	849	(0)
<b>Total Waste recycled</b>	<b>32,377</b>	<b>30,747</b>	<b>1,422,000</b>

**iv. Previous years' and current departmental income from all recyclable materials (including Tipping charges at La Collette) giving evidence of trends in prices being achieved for recyclables**

<b>Income received from recyclable material</b>	<b>2008 £</b>	<b>2009 To date £</b>
Tipping Fees	2,049,000	756,900
Asbestos	15,800	13,200
Green Waste Recycling - Sale of Goods	39,800	22,200
Wood Shreddings	14,600	4,500
<b>Total Income received</b>	<b>2,119,200</b>	<b>796,800</b>

### Trends on Tipping Fee Income:

The Department is currently forecasting a shortfall in Tipping Fee Income totalling approximately £200,000 which reflects in part, the economic downturn and contractors using private tips. Shown below is a graph comparing actual v. budget in 2009.



***We are particularly interested in exploring the costs and benefits relating to the following schemes:***

- ***The parish kerbside collection scheme including the extent of the support provided by your Department and the extent to which a market exists for recyclable materials collected in this process.***

The 2005 Solid Waste Strategy recommended the introduction (following a pilot) of doorstep collections in all Parishes for the key target materials by 2009. 4 Parishes now have a basic doorstep system in place collecting paper, cans, glass and plastic bottles with St. Lawrence also collecting card.

The operational costs of these services are borne by the Parishes themselves. The details are not known to TTS but are thought to be in the region of £8-£10 per household per year. The only direct costs the Department has incurred are a contribution to the initial equipment purchase (boxes) in the St. John pilot shared with a commercial sponsor. The latest 3 Parishes introducing a system have had all the start-up costs covered by sponsorship.

In broad terms the schemes appear to have been successful to date. Based on data for St. John, which is the only scheme with a full year of records, a recycling rate of 18% has been achieved. This is reasonable considering the collections are only monthly, card is not collected and that green waste recycling is not included in this figure. 2 full surveys have been completed on the St John service each showing a 70% participation rate which is respectable compared to UK schemes.

TTS provides the outlet for the materials collected in the Parishes but, as described above, only paper products have a cost impact – for St. John this was approximately £1,600 for 2008.

The view of the Waste Strategy team at TTS is that an Island-wide doorstep service, for at least the key materials, is required to reach the current recycling target of 40%. Whilst successful and cost effective, the bring system, requiring people to take their materials for recycling will only generate a limited yield. The convenience of a doorstep service brings many more households into recycling.

- ***The inert waste recycling scheme at La Collette and the extent to which the States currently subsidises this scheme.***

The aggregates recycling facility, currently operating on the La Collette II reclamation site, is based on a 5 year contract, let to a private company following an open market tender process in 2006. As there is a local market for recycled aggregate the contract was drawn up on the principle that the operator would not require a direct subsidy.

To provide an incentive to maximise levels of recycling, a land rental rebate scheme was built into the contract. The rental market value for the land, which was unsurfaced and included no services, was set as a 'gross annual charge'. A model was then drawn up which provides up to a 75% rebate to the operator if certain sales tonnage targets are achieved – these targets become more challenging as the contract years advance.

- **The scheme for processing hazardous waste electrical and electronic equipment.**

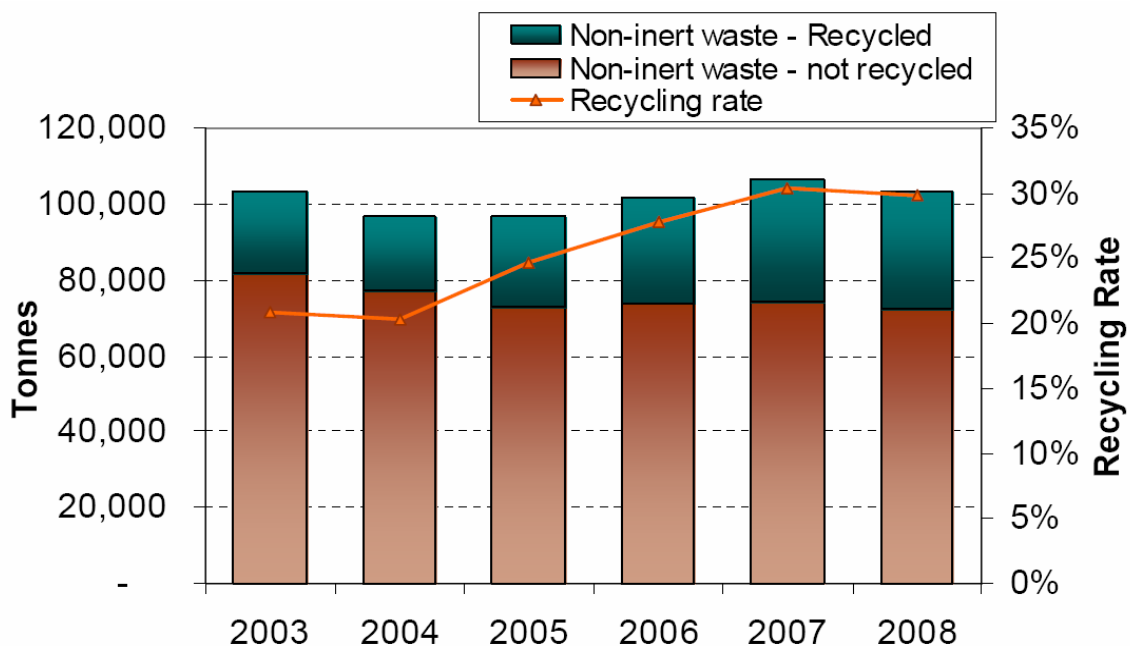
Due to the complex nature and lack of a local market for most of this equipment, the recycling process requires significant financial input from TTS. Waste display screens (TV's and monitors) require careful palletising and export to a specialist recycling facility off-island where a fee is paid for each screen processed. This cost is increased by the requirement of a special hazardous waste license from the local waste regulator and the UK Environment Agency to ship these items across an EU frontier.

For non-display WEEE such as videos, computers, music centres etc., TTS have set up a dismantling system with HM Prison which results in items being stripped down into metals, plastics and circuit boards. Some of these commodities have a precious metal content and are hoped to provide a sales revenue – the level of this income will not be known until the end of the year when enough of the materials will be segregated to justify a shipment.

The overall cost of recycling WEEE can be seen in the 2008 expenditure table provided in this response.

**We also wish to consider the following general issues related to recycling:**

- **Current progress in reaching overall recycling targets**



As the graph shows progress in the overall recycling rate since 2003 has been steady broadly increasing from 20-30%. The target set for 2009 was 32%. 2008 showed a slight drop on the previous year which is attributable to a reduction in green waste received. As this is a significant total tonnage the rate is very sensitive to these fluctuations. It actually masks a 12% increase in the overall tonnage of recycling compared to 2007 if green waste is excluded.

Interestingly the 2009 recycling rate is forecast to be back above 30% based on figures to half year end helped by new doorstep schemes and increases in green waste received.

It is worth pointing out that the Department expect the recycling rate to stabilise due to most existing schemes having matured. To reach the 36% target by 2015 investment is needed in more doorstep services and a sustained education programme.

- ***The state of the market for the range of potentially recyclable materials, including those currently accepted at the recycling centre as well as others which may not currently be recycled locally, together with identification of materials which are considered uneconomic to recycle,***
- ***The market for the disposal of cars and their components and other scrap metal***
- ***The extent to which the States provides financial subsidies, if any, to private recycling operations and initiatives.***

As the majority of new recycling services have been introduced during the last decade in which States policy has generally discouraged introducing new services requiring further manpower, many are outsourced to private sector partners.

The financial relationship within these contracts is generally based on the operator selling materials and using this revenue to offset their costs. Some form of price mechanism is then used for the benefits of these sales to offset the cost to the States.

### **Summary of arrangement for key material streams:**

#### **Scrap metal**

A 3 year, renewable Service Level Agreement (currently in year 3) with an open book accounts system. A reasonable price per tonne is agreed as base income for metal sales – in years where this price is exceeded the company pay into a 'strategic reserve' to cover years when the price falls below the threshold. This system has resulted in no payments being made by the States since 2003 and the current strategic reserve being healthy.

#### **Vehicle Spares**

The company operating the scrap metal yard (Picot and Rouille Ltd.) have seen a steady decline in the demand for car parts in recent years. They attribute this to modern vehicles being less owner serviceable, more reliable and increases in general affluence.

#### **Paper and Card**

These materials are received bulked, exported and sold by a private company. A 5 year contract exists (currently in year 2) which includes a payment per tonne for paper and card based on an annual review of the cost of recycling. The reference for the price review is based on weekly figures published in a national publication called Materials Recycling Weekly averaged over the year. The price paid for the year following the anniversary of the contract is based on the previous year.

Typical rates for paper (mainly newspaper and magazines) is £25/tonne and cardboard £30/tonne although this has fluctuated in recent years.

### **Plastic Bottles**

Plastic bottles are handled in the same way as paper and card but at the time of tender submission, no payment was required by the contractor. As the tonnages will always be relatively small (10's of tonnes rather than 1000's) no price mechanism was put in place for this 5 year contract. Despite a 70% drop in plastic bottle values this year the contractor currently receives no payment for this material.

### **Cans**

During 2007, when the new Island-wide recycling collection points were introduced, to help simplify things for the public it was decided that 'mixed cans' would be collected. This requires the local sorting of steel and aluminium cans before export for sale. There is currently no contractual arrangements for can recycling. Some aluminium cans are collected by a private company and are densified, exported and sold. The mixed cans from the TTS recycling sites are collected under contract by a private company who have the choice of delivering the cans to the TTS licensed scrap yard or sorting, baling and exporting and selling themselves – the latter is the current arrangement.

### **Glass**

Glass is currently received by the aggregates contractor at La Collette for crushing. The cullet is used for a variety of civil engineering processes, mostly within the La Collette 2 site. Although glass has a sales value to container manufacturers off-Island the market is dependent on colour sorting and is felt to bring little environmental gain compared to an on-island solution.

### **Uneconomic Materials**

Economics has not been a key factor in strategic thinking on recycling. Greater weighting has been given to environmental performance, practicality and readiness of outlets in choosing which materials we pursue. The only materials that are actually 'economic' ie generate a profit after accounting for collection and handling costs are high grade paper, aluminium cans and scrap metal. Hence these being operated primarily by private firms.

Materials not currently being recycled such as low grade plastics (non-bottle food packaging), tyres, treated timber and bulky fibres (carpets, mattresses) are all felt to be most suitable for energy recovery at the moment– the Department continues to monitor these outlets and will introduce new schemes as robust outlets arise, subject to availability of funding.

- ***The feasibility of possible alternative funding mechanisms eg whether a charge might be levied on imported goods (eg TVs, cars, fridges) to fund their final disposal***

Alternative funding mechanisms for recycling were investigated as part of a piece of work carried out by the Environment Department in 2007. The outcome of this process was that a tax on fuel or on the purchase of a new vehicle based on CO2 emissions was the favoured option – the Panel will be aware that this process is currently out to consultation.

- ***Potential impact of a States decision not to provide additional ongoing funding for the identified recycling initiatives***

The impact of further funding not being agreed for 2010 will be explained in the forthcoming presentation to the panel. Broadly speaking one of the key recycling services will have to be discontinued – the most appropriate target is currently being reviewed but to meet the expected shortfall the Department would have to withdraw one of the following:

- Paper and card recycling
- E-waste (electronic waste such as TV's, computers etc)
- Green waste (public reception)

- ***Further potential recycling initiatives which may have been considered but are currently unfunded, or which could be considered in the future.***

The Department has focused mostly on a list of key materials which will bring demonstrable environmental gain. The key steps moving forward are to increase the yield of these materials not necessarily add new streams.

However we have always recognised that advances in technology will bring new opportunities which may open the door to new local initiatives for low grade plastics, food waste, tyres and treated wood. Also key will be initiatives to try and reduce overall waste production in the domestic and commercial sectors.

## Appendix 2 - Kerbside Collection Scheme - Responses from Parishes

Parish	Scheme established	Comments
Grouville	No	Estimated annual costs: £25,000 for 3 items (cans, paper and plastic bottles) or £30,000 for 4 items (including cardboard) Proposal not supported by the Parish Assembly Concern that recyclable waste collected is being stockpiled instead of being recycled Parishioners satisfied with bring bank facility at Holme Grown
Trinity	Yes	Scheme commenced May 2009 Estimated annual cost £10,000 Estimated 70% to 80% participation by residents With the downturn in States finances and the fall in recycling commodity prices the Connétable suggested that priorities should be reappraised
St John	Yes	Annual cost £3,600 for 3 items (cans, paper and plastic bottles) Contractor is seeking a significant increase 70% participation rate
St Saviour	No	Connétable supportive of implementing the scheme Plans in abeyance as TTSD unable to manage delivery within current resources Questionnaire to parishioners - 20% response of which 79% were in favour Cost of providing the service has not been determined
St Mary	Yes	Scheme introduced in May 2009 - working very well with no negative feedback to the Parish Hall 3 items collected (cans, paper and plastic bottles) No information provided on costs
St Martin	No	Connétable believes that there would be positive support for Kerbside Collection Provisional estimate of annual costs: £18,000 - £20,000 Proposal deferred by Parish Assembly due to financial constraints Bring bank well used and popular



St Lawrence	Yes	<p>Introduced in May 2009</p> <p>Parishioners very positive - the take up has exceeded initial estimates so the contractor will be revising costs</p> <p>Teething problems occurred over confusion regarding collection days</p> <p>Difficulties reported include: (i) monthly collections not frequent enough (ii) containers filled up too quickly (iii) containers too heavy for old and infirm (iv) insufficient storage space (v) doubts about whether materials are actually recycled</p>
St Ouen	No	<p>Introduction of kerbside collection will be considered when decision on purchase of new refuse vehicle is due in 24 months time</p> <p>Bring Bank is popular and increasing</p> <p>Doubts expressed about whether all items are actually recycled</p>
St Clement	No	<p>Survey sent to parishioners - 20% response of which only 35% in favour</p> <p>Estimated annual costs between £75,000 and £100,000</p> <p>Concerns expressed about (i) the ability to store recyclables (ii) costs of recycling compared to incineration (iii) recycling materials being stockpiled (iv) recycling scheme not suitable for blocks of flats</p> <p>Bring bank facility very popular - expansion would be more efficient and less expensive for residents</p> <p>Bring bank for Millennium Flats recently introduced</p>
St Helier	No	<p>Kerbside Recycling scheme was an election pledge by the Connétable</p> <p>Plans for a scheme were agreed in a Parish Assembly in November 09 for introduction in Spring 2010</p> <p>The costs of the scheme to the parish amount to £200,000 - £90,000 for a new Parish vehicle, £50,000 for the conversion of two existing vehicles, £42,000 for plastic recycling bags.</p> <p>The only annual cost would be for the plastic bags for householders, other operational costs would be met by efficiencies from the refuse collection system</p>
St Brelade	No	<p>Awaiting the renewal time for the current contract with parish waste collector (2 years time)</p> <p>Transport and Technical Services would not be in a position at the present time to handle the volumes of waste which would be delivered from the Parish</p>
St Peter	No	<p>The Parish is not currently considering the introduction of this initiative</p>