

THE STATES OF DELIBERATION
of the
ISLAND OF GUERNSEY

STATES' TRADING SUPERVISORY BOARD and
COMMITTEE *FOR THE ENVIRONMENT & INFRASTRUCTURE*

IMPLEMENTATION OF THE SOLID WASTE STRATEGY

The States are asked to decide: -

Whether, after consideration of the Policy Letter entitled 'Implementation of the Solid Waste Strategy' of the States' Trading Supervisory Board and the Committee *for the Environment & Infrastructure*, they are of the opinion: -

1. To rescind Resolution 2 of 1st February, 2007 on Billet d'État I of 2007, Resolution 2 of 30th November, 2007 on Article XII of Billet d'État XXIV of 2007, Resolution 4 of 9th December, 2010 on Article V of Billet d'État XXIV of 2010 and Resolution 1 of 22nd February, 2012 on Article VII of Billet d'État IV of 2012, and approve revised recycling targets to apply only to waste generated by households as follows:
 - a. 60% by the end 2022; and
 - b. 70% by the end of 2030.
2. To rescind the following resolutions of 12th February, 2014 on Article I of Billet d'État II of 2014 –
 - a. Resolutions 4 and 5, in relation to tendering for the Transfer Station and the transportation and export of residual waste to an off-island energy from waste facility;
 - b. Resolution 6, in relation to the approval of recommended tenderers and the release of relevant funds for capital and operational costs for the Transfer Station and the transportation and export of residual waste to an off-island energy from waste facility;
 - c. Resolution 7, in relation to tendering for other on-Island infrastructure; and
 - d. Resolution 8, in relation to the approval of recommended tenderers and the release of relevant funds for capital costs up to a total sum not to exceed £29.5 million.

3. To approve the change in the method of treatment of food waste from on-island In-Vessel Composting to the export and transportation of food waste and its subsequent treatment at a suitable off-island facility.
4. To authorise the States' Trading Supervisory Board:-
 - a. to tender for the export and transportation of food waste and its subsequent treatment at a suitable off-island facility;
 - b. to continue the tender process for the export and transportation of residual waste and its subsequent treatment at an off-island energy from waste facility;
 - c. to continue the tender process for the construction or operation or the construction and operation of -
 - i. a Transfer Station;
 - ii. a Materials Recovery Facility;
 - iii. a Household Waste Recycling Centre; and
 - iv. a Repair and Reuse Centre and any other general site infrastructure at Longue Hogue,

and to direct the States' Trading Supervisory Board, on receipt of tenders, to submit a full business case or cases in relation to such infrastructure and services, to the Policy & Resources Committee, in accordance with any requirements of the Policy & Resources Committee.

5. To authorise the States' Trading Supervisory Board to approve tenderers for any of the facilities or services referred to in proposition 4, subject to prior approval of a full business case relating to the facilities or services in question by the Policy & Resources Committee and to direct the Policy & Resources Committee, upon its approval of such a full business case and the approval of the relevant tender by the States' Trading Supervisory Board, to make available a loan from the proceeds of the States of Guernsey Bond Issue (of December 2014) to fund the capital costs of such facilities or services; and to direct the States' Trading Supervisory Board to fund the loan interest and capital repayments from the Solid Waste Trading Account.
6. If any of the costs of the Solid Waste Strategy exceed those indicated in the Policy Letter, to delegate authority to the Policy & Resources Committee to approve revisions to the relevant estimated capital and operational costs.

7. To note that all solid waste management costs of the States referred to in the Policy Letter are to be managed through the Solid Waste Trading Account in accordance with Resolution 2 of 12th February, 2014 on Article I of Billet D'Etat II of 2014 and to direct the States' Trading Supervisory Board to recover such costs fully through charges to householders, businesses and other users of waste management services.

The above propositions have been submitted to Her Majesty's Procureur for advice on any legal or constitutional implications in accordance with Rule 4(1) of the Rules of Procedure of the States of Deliberation and their Committees.

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STATES' TRADING SUPERVISORY BOARD and
COMMITTEE *FOR THE ENVIRONMENT & INFRASTRUCTURE*

IMPLEMENTATION OF THE SOLID WASTE STRATEGY

The Presiding Officer
States of Guernsey
Royal Court House
St Peter Port

16th January, 2017

Dear Sir

1 Executive Summary

- 1.1. In 2012¹ the States agreed a new waste strategy for Guernsey, following extensive public consultation. It is based on the Waste Hierarchy², and aims to minimise the waste produced by local homes and businesses, and encourage more reuse and recycling. The States also resolved that residual waste left after efforts to reduce, reuse and recycle, should be exported for energy recovery. This followed two previous unsuccessful attempts to procure an on-island Energy Recovery Facility (ERF).
- 1.2. In February 2014,³ the States directed the then Public Services Department (PSD), in its capacity as the Waste Disposal Authority (WDA), to seek tenders for a range of facilities and services required to give effect to the Strategy. These included a transfer station to prepare waste for export and off-island energy recovery, and a contract with a receiving plant to treat this material. Other services included sorting of recyclables and separate treatment of food waste.

¹ Billet d'Etat IV of 2012, Article VII.

² The "waste hierarchy" ranks waste management options according to what is best for the environment. Top priority is preventing waste in the first place. Where waste is created, priority is to preparing it for re-use, then recycling, then recovery, and last of all disposal (e.g. landfill). Source: www.gov.uk/government/publications/guidance-on-applying-the-waste-hierarchy.

³ Billet d'Etat II of 2014, Article I.

- 1.3. It was anticipated that the capital funding requirements would total approximately £29.5 million and the then Treasury & Resources Department (T&R) was given delegated authority by the States to approve funding up to this amount upon receipt of suitable business cases.
- 1.4. Since 2014 extensive work has been carried out to advance the procurement of appropriate infrastructure. As this work has progressed, various issues have come up, some of which have led to changes to some aspects of the Strategy and also about the infrastructure and services needed to deliver it.
- 1.5. As a result, this policy letter is now seeking States approval for the following amendments to the resolutions of 2012 and 2014:
 - Revised recycling targets (extending the dates for meeting the 60% and 70% targets, and removing commercial waste from those targets);
 - Replacement of on-island In-Vessel Composting (IVC) with an alternative method of dealing with separated food waste at a suitable off-island facility;
 - Delegated authority for the Policy & Resources Committee (P&RC) to approve business cases and expenditure in respect of:
 - A transfer station
 - A Materials Recovery Facility (MRF)
 - A Household Waste Recycling Centre (HWRC)
 - A Repair & Reuse Centre and
 - Any other general site infrastructure needed at Longue Hougue.
- 1.6. The facilities and services now proposed will be able to support delivery of the most significant aspects of the Strategy agreed by the States. However, whilst the facilities in question still enable the aims of the Strategy to be delivered, they differ slightly from what was anticipated in 2014. This is perhaps unsurprising, as at the time of writing the 2014 report, there had been little engagement with potential providers and no formal tendering carried out.
- 1.7. The total Strategy costs over 20 years, including operating costs, has increased from the 2014 pre-tender estimates of £200-£260 million to around £298 million. A significant proportion of the increase is attributable to the fact that operating costs for the transfer station are higher than originally anticipated.
- 1.8. Capital costs, including contingencies, are now estimated to be £33 million. This is above the delegated authority given in 2014 to T&R to approve capital funding of up to £29.5 million.

- 1.9. The time scale for constructing the infrastructure needed to support delivery of the Strategy is now critical. Mont Cuët is the island's only site for putrescible waste disposal, and it is estimated it will reach effectively full capacity during the third quarter of 2018. To continue landfilling at current rates beyond then will seriously inhibit future use of the site for composting green waste. It would also begin to diminish the available void space for future disposal of specially controlled/hazardous waste (e.g. asbestos), which is not suitable for treatment as Refuse Derived Fuel.
- 1.10. A realistic timescale for the commissioning of the proposed new facilities is during quarter 4 of 2018, at which point exports will commence.
- 1.11. The time lag between Mont Cuët reaching its optimal level in Q3 2018 and the commencement of exports is currently considered manageable. On the current programme timeline, the proposed facilities at Longue Hougue will begin to receive waste during commissioning. However any delay to this is likely to impact on the future use of Mont Cuët, and incur significant additional costs.
- 1.12. The resolutions of the States in 2012 and 2014 have been progressed, with key contracts having been through procurement, contract negotiation, and design stages. Planning approval has also been received for Longue Hougue. These are all necessary stages, with considerable time scales.
- 1.13. In light of the time that would be needed, even if the Assembly were minded to consider alternatives at this late stage, they could not be achieved in the time available.
- 1.14. This policy letter therefore seeks to address the approvals needed to progress the construction of the necessary infrastructure and related matters, as set out, as a matter of extreme urgency. It is not intended to revisit previous States decisions in terms of the Strategy itself and its fundamental aims and approach. Those are still relevant and, in the view of both the States' Trading Supervisory Board (in its role as the WDA) and the Committee *for the Environment & Infrastructure* (CfE&I), appropriate to the island's requirements.
- 1.15. The States' Trading Supervisory Board (STSB) recommends that P&RC be authorised to approve business cases and approve the grant of a loan to cover the capital cost of the facilities needed to enable delivery of crucial aspects of the Waste Strategy.
- 1.16. The CfE&I supports this recommendation, approval of which is fundamental to the progression of the crucial infrastructure project that underpins so much of the Waste Strategy.

- 1.17. In summary therefore the States are asked to approve the changes to the implementation of the Waste Strategy, namely:
- To authorise P&RC to release funds for capital costs for the construction of a Waste Transfer Station, a Household Waste Recycling Centre, and general site infrastructure at Longue Hougue;
 - Replacement of an on-island IVC facility with an alternative method of dealing with separated food waste at a suitable off-island facility; and
 - To extend the date for the recycling rate target(s), in line with revised programme timescales and to revise the definition to household waste only.
- 1.18. For the avoidance of doubt, details of the new charging regime, including the timing of its introduction, will be set out in a further policy letter at a later date.

2 Background

- 2.1. The CfE&I is responsible for advising the States on waste policy matters. That includes the periodic review of the Solid Waste Strategy and the Waste Management Plan (WMP).
- 2.2. The STSB is designated by Ordinance as the WDA and has various waste-related statutory functions. They include making arrangements for the island's solid waste management in accordance with the States' Waste Strategy and WMP.
- 2.3. For decades, Guernsey's primary method for disposing of thousands of tonnes of putrescible waste produced by local homes and businesses every year has been landfill - mostly using disused former quarries.
- 2.4. As far back as 1998, the States acknowledged that this could not continue indefinitely. Landfill is inferior to other disposal methods. It destroys resources in waste, does not recover usable energy, and is a hazard to the environment (leachate, odours, greenhouse gas emissions⁴). It also renders a site unavailable for alternative uses, such as water storage or further quarrying.
- 2.5. However, the search for an alternative to landfill has had a very long and challenging history. Proposals to construct an on-island Energy Recovery Facility (ERF) have twice been approved and then overturned by the States, at considerable financial cost. In 2010, it was estimated that in total nearly £12m had been spent on the two aborted projects.
- 2.6. Consequently the issue of waste management in Guernsey is highly emotive – not least because waste disposal in future will inevitably be more costly than the current outdated practice.

⁴ In 2014, landfilled waste was the second largest contributor to local greenhouse gas emissions, after power generation. (Source: 2016 Guernsey Annual GHG Bulletin).

- 2.7. At current filling rates, Mont Cuet will reach its optimum level in Q3 of 2018. Any delay to the construction and commissioning of new infrastructure will have major consequences in terms of cost, time scale, disruption to waste management services and business continuity.
- 2.8. In addition to general landfill (of residual waste), Mont Cuet is currently used for green waste processing, and that is set to continue long term.
- 2.9. Part of the site is also used for certain specially controlled/hazardous wastes not suitable for export in the form of Refuse-Derived Fuel (RDF)⁵ (e.g. asbestos). It is important to retain the hazardous waste cell, as Mont Cuet is identified as the site for disposal of these materials for the next 25 years.

3 Approved Waste Strategy

- 3.1. The Waste Strategy is based on the Waste Hierarchy, which is an internationally accepted principle and guide to sustainable waste management. It identifies the preferred order for managing waste, with the aim of extracting maximum practical benefits from products and materials and generating least amount of waste. The proper application of the waste hierarchy can have several benefits. It can help prevent emissions of greenhouse gases, reduce pollutants, save energy, conserve resources, create jobs and stimulate the development of environmental technologies.
- 3.2. It must be stressed that the Strategy is an integrated package of measures to address every level of the waste hierarchy - not just final treatment/disposal. This policy letter, however, is concerned mainly with the infrastructure needed to support the delivery of suitable waste treatment and preparation of waste for recovery and disposal where other options are no longer achievable. It does not seek to revisit the Strategy itself, which was developed after extensive public consultation and approved in 2012.
- 3.3. The infrastructure needed to support the delivery of the Waste Strategy was debated by the States in February 2014. The pre-tender estimate for the total cost of implementing the Waste Strategy, including procuring and operating that infrastructure, was up to around £260m. However it was emphasised greater cost certainty could only be achieved following procurement.

⁵ After undergoing on-island separation, processing and baling, residual waste is classed as refuse derived fuel and can then be legally exported for energy recovery in accordance with international transfrontier shipment of waste regulations.

- 3.4. The States resolved to proceed on that basis, and gave T&R delegated authority to approve recommended tenders for the infrastructure and services required, on receipt of suitable business cases, up to a maximum capital expenditure of £29.5 million. It was not anticipated that this matter would return to the Assembly for further consideration.
- 3.5. As well as setting a limit on the delegated authority to approve capital costs, the February 2014 resolutions directed PSD to tender for specific facilities. These were:-
- Waste Transfer Station
 - Materials Recovery Facility (MRF)
 - In-Vessel Composter (IVC)
 - Civic Amenity (CA) Site - now referred to as the HWRC
 - Repair and Reuse Centre
 - Kerbside collection vehicles (if required)
- 3.6. This precise stipulation of the elements to be tendered at that relatively early stage offered no flexibility in the subsequent procurement process. PSD and subsequently the STSB⁶ have undertaken the procurement processes necessary to comply with these resolutions of the States.
- 3.7. In 2014, expressions of interest in tendering for the main infrastructure elements were invited. Five companies or consortia were then invited to bid, but four withdrew from the process, leaving a single bidder group:-
- Local firm Guernsey Recycling Group, to operate the MRF;
 - Local construction firm Geomarine, to build the facilities at Longue Hogue;
 - UK engineering firm Amec Foster Wheeler, for the detailed design of the Longue Hogue facilities;
 - States Works⁷, to operate the transfer station and HWRC at Longue Hogue;
- 3.8. With a single bidder, on the advice of the States' strategic procurement team, the tender process formally ceased and the procurement proceeded on a negotiated basis. In early 2015 the Bidder Group submitted its initial capital cost estimates, which exceeded the budget approved by the States in 2014.

⁶ PSD up to 30th April, 2016; STSB from 1st May, 2016.

⁷ States Works is a States of Guernsey Trading Asset.

- 3.9. The PSD Minister made a statement in the Assembly in April 2015, to update States Members on the procurement and explain that the Department had begun to revisit the scope of the facilities to be provided, in order to reduce the estimated costs. This included removing the proposed IVC facility, and instead exploring the option of an alternative export solution for food waste treatment.
- 3.10. It is perhaps helpful to explain at this juncture that IVC is a form of treatment for organic waste, which involves heating it in a controlled environment over a period of time to produce compost which can be applied to land. It is primarily used for processing organic material such as food waste, and sewage sludge together with green waste. There are already high levels of nutrients in Guernsey farmland which limits the available land for applying IVC derived compost, and increases the risk of elevating nutrient levels in surface water within the water catchment area. Nevertheless, there were plans in place to mitigate these risks.
- 3.11. The proposal now is to export food waste and use a different treatment system, known as Anaerobic Digestion (AD). This method is widely considered to be the optimum solution for food waste⁸, in terms of environmental impact. It was included in the original evaluation of options when the Strategy was developed, but was deemed impractical to implement locally, not least because the output is nitrate rich liquid. With nitrates already high in farming areas on Guernsey, it was concluded that it would be unlikely to secure sufficient farmland locally to allow the long term application of outputs, without impacting on nitrate levels in local drinking water supplies. IVC was therefore adopted as a preferred alternative, at that time.
- 3.12. AD has a number of additional benefits to IVC, most notably recovery of energy and therefore better environmental performance. It also produces nutrients that can be applied to farmland (albeit not in Guernsey). As these are in liquid form they are more readily available for plant uptake than from compost produced through IVC. In addition, the export of food waste removes the risk involved in managing outputs on-island, and reduces operating risk.
- 3.13. Given the recent growth both in the renewable energy sector (increasing AD capacity) and separate food waste treatment in the UK, export to an AD facility is now a more practical solution. It is therefore a better solution for food waste treatment, which still meets the objectives of the Strategy and at the same time eliminating some risks associated with the previous approach.
- 3.14. This proposed change requires the States to authorise the STSB to tender for alternative facilities and services to manage and process food waste.

⁸ UK Department of Environment, Food and Rural Affairs: Anaerobic Digestion Strategy and Action Plan, Annual Report 2014.

4 Recycling rates

- 4.1. In 2012 the States approved a recycling rate target of 70% by 2025 (household and commercial waste combined), with interim targets of 50% by 2013 and 60% by 2018. This acknowledged increased recycling would require time and behaviour change following introduction of new services, facilities and charges.
- 4.2. When the targets were agreed, it was anticipated that the Strategy would be fully implemented by the end of 2015. Given that this is now expected to be the last quarter of 2018, the CfE&I proposes that the date for the 70% target should be adjusted to 2030.
- 4.3. It also now proposes calculations of recycling rates should be consistent with those used throughout the EU and UK that apply to householder waste (akin to municipal waste collected by local authorities). This does not in any way diminish the importance of commercial waste recycling, but the rate for that involves a separate calculation which needs to be reviewed. A target for this will be proposed in due course once an appropriate methodology is identified.
- 4.4. In 2015 the household recycling rate in Guernsey was 48.7%. A 70% target is therefore challenging, but it is worth noting that Wales recently reported 60.2% recycling in 2015/16. That is more than double their rate just 10 years earlier, and it now has targets of 64% by 2020 and 70% by 2025.
- 4.5. The type of measures that have been successful in Wales, such as kerbside recycling collections and separate food waste treatment, are important elements of the island's Waste Strategy. The progress achieved there could well also be seen here, given that culturally Wales is arguably not too dissimilar to Guernsey (compared to other mainland Europe countries such as Germany, Austria and Belgium, which are often cited for good recycling performance).
- 4.6. The Strategy is also consistent with the approach other European countries are adopting. The proposed EU Circular Economy Package proposes legally binding targets on Member States which include increasing municipal waste recycling to 65% and reducing landfill to a maximum of 10% of municipal waste by 2030. There should be benefits to Guernsey from such developments in spheres where it has little influence – for example reduction of product packaging.

5 Export destination

- 5.1. The export contract for the RDF transport and off-island energy recovery has been tendered.
- 5.2. Following the evaluation of tenders, Geminor UK was identified as the preferred bidder. Its tender scored highest in both technical and financial evaluation, and provided the most robust contingency arrangements.

- 5.3. The company has proposed export to the UK and onward transfer to a European Energy Recovery Facility (ERF). This provided a more cost effective solution than bids received from other shortlisted providers, all of which involved use of Jersey's ERF.
- 5.4. It also scored better in a separate environmental appraisal. This is because as well as generating electricity, as Jersey's facility can, the proposed ERF also uses heat from the process to feed a district heating system. This additional energy recovery more than offsets the higher transport requirement.
- 5.5. There were a number of other issues associated with all bids to use Jersey as the export destination:
- The Jersey proposals were assessed to be more expensive over five years;
 - Contingency arrangements, should there be any technical problems with the Jersey plant, were not as robust, which increases risks and potentially costs;
 - The principle of importing waste into Jersey requires the approval of its States Assembly and there is no certainty that this will be achieved. Our Law Officers advise it would also be prudent for changes to Jersey's legislation to be in place, to minimise risk; and
 - Despite the proximity of Jersey, the proposal did not offer the best environmental solution.
- 5.6. The States of Jersey also submitted an alternative bid in the form of an invitation to negotiate. This provided insufficient information to score against the evaluation criteria set out in the invitation to tender, and was considered non-compliant. Consequently, it had to be discounted.
- 5.7. It is therefore proposed to sign a three year contract with Geminor UK, with the option to extend this for a further two years. The company has identified a high efficiency ERF in Sweden as the proposed destination for Guernsey's RDF. Geminor operates contracts with numerous other facilities in Europe, and can send the material it receives to whichever is most cost-effective at the time.
- 5.8. After the initial three-year period, it is intended to retender the contract which will be an opportunity to engage Jersey in the process again. The fact that Jersey has been ruled out for the time being therefore does not mean that it is ruled out indefinitely should the current impediments be resolved. That does not however affect the specification or choice of infrastructure needed to prepare waste for export.

- 5.9. It would be imprudent to construct a facility designed solely around waste acceptance criteria for Jersey's plant. This would result in complete inflexibility regarding future export destinations and leave Guernsey vulnerable to future changes that might take place in Jersey, including financial changes (i.e. an increase in gate fees), changes in Jersey's own waste strategy (e.g. a move away from incineration) or other reasons for their plant becoming unavailable to Guernsey. For these reasons, it is vital that we have contingency options and this requires our residual waste to be treated as RDF.
- 5.10. It therefore makes sense to build a facility to produce RDF to a standard that is acceptable to plants in the UK and Europe, as well as Jersey, thereby maximising future flexibility, whilst also being willing to hold future negotiations with Jersey, should other issues such as legislation and proposed gate fees be addressed by its authorities in the meantime.

6 Affordability

- 6.1. It has been known for some considerable time that the cost of dealing with the island's waste will inevitably be higher in the future. This is because we will no longer be relying on what has been the cheapest form of waste disposal. Costs will instead reflect the more sustainable, modern methods for managing waste.
- 6.2. An important priority has been to ensure any new facilities or services deliver the best value that can be achieved. Nevertheless it is inevitable that both States Members and the public will want to understand what the future costs will be to householders.
- 6.3. Currently, the average household refuse bill is equivalent to around £2.15 per week. That is estimated to rise to around £7 per week when the new infrastructure is fully operational. Therefore most households are likely to see a significant increase in their waste bills.
- 6.4. However, to assess the significance of these increases, it is important to consider waste charges in a wider context. There are a number of relevant factors:-
- The magnitude of the charges needs to be considered in the context of general levels of household expenditure, and other costs.
 - How the increases might affect those households, predominantly on low incomes, who could potentially be most impacted.
 - Flexibility in the charging structure to address individual affordability, should that be desirable.

6.5. There is limited benefit in benchmarking local costs with other jurisdictions. One issue is the lack of available data that is readily comparable. Another is that identifying whether the island is more (or less) expensive than another location is not necessarily evidence that greater value or efficiency can be achieved locally. Every jurisdiction's costs reflect its specific circumstances and it is not unusual for Guernsey costs to be high in comparison with others' because of the need to transport items to and/or from the island.

Magnitude of costs and increases

6.6. According to the most recent study⁹, average household expenditure in 2013 was £1,046.12 per week. This is equivalent to £1,096.72 in 2016¹⁰.

6.7. Therefore, currently the average household waste bill (c £2.15 in 2016) equates to around 0.2% of household expenditure. The anticipated increase to £7 a week will equate to 0.6% (see Figure 1 below, which compares this to other household expenditure).

6.8. In other words, on average, out of every £1,000 a household currently spends, £2 is on waste services. In future, that average will be around £6 in every £1,000.

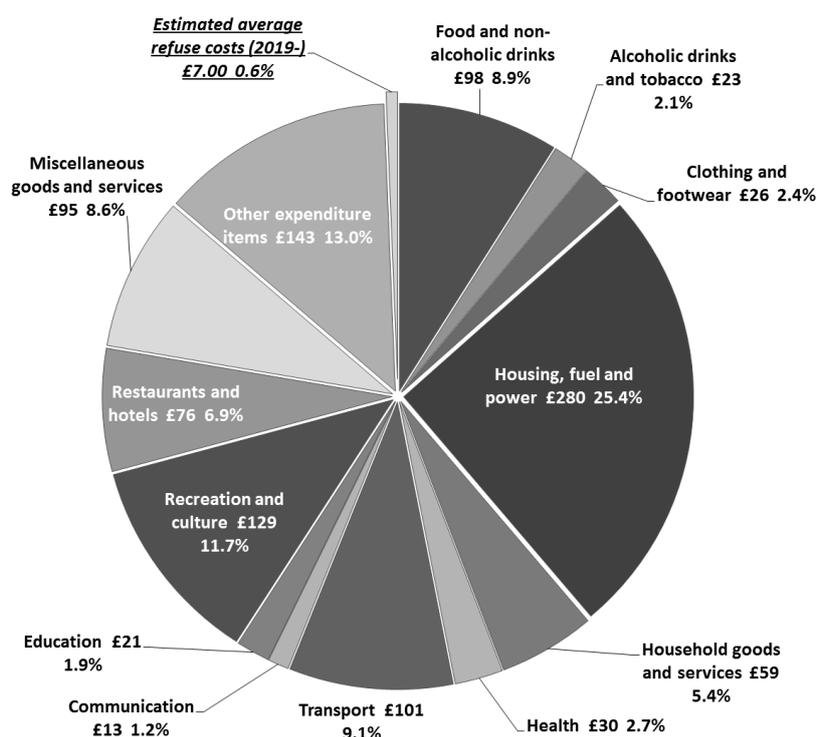


Figure 1: Average Weekly Household expenditure 2012/13, with inflation

⁹ The Policy Council: 2012-13 Household Expenditure Survey Report. Based on data from 1,000+ households, over a 14 month period ending in June 2013.

¹⁰ RPI June 2013 to September 2016 = 4.8%. www.gov.gg/rpi.

Structure of charges

- 6.9. Currently, a household's waste charges are based on the size of their property, as assessed for the purposes of Tax on Real Property (TRP).
- 6.10. For a small number, occupying the smallest properties, the annual refuse rate will equate to less than £1 a week for all their waste services. At the other end of the scale, a small number of households pay 20 times that amount.
- 6.11. In terms of affordability, there is a degree of fairness to TRP-based charging if one assumes those who occupy larger homes can afford to pay more. While that may generally be the case, it is not universally true.
- 6.12. TRP is based on dwelling size, not value or household income. Moderate income households may live in medium level TRP properties – possibly family homes – while high earners can own small but modern, high specification apartments.
- 6.13. The States have already resolved¹¹ to replace the TRP-based waste charges with a new system that incorporates an element of user pays. The legislation has already been approved which give the States the power to provide by Ordinance for a new system to comprise:-
- A collection charge per household, levied as a flat rate in each parish.
 - A WDA 'service' charge per household, at a flat rate across the island.
 - A per bag user charge, levied by the WDA on refuse, with an option also to charge for recycling.
- 6.14. The first two are in essence the 'standing charge' element of other utility bills. They reflect that there are fixed costs to providing waste services, irrespective of what use individual households make of these. However the 'per bag' charge provides a user pays element.
- 6.15. In 2014, PSD indicated it was minded not to apply a WDA fixed charge, and to include a recycling bag charge.
- 6.16. The STSB, the current WDA, is in favour of applying a fixed charge, but for recycling bags to remain free. In effect, households will all pay towards general recycling services within a 'standing charge' element, not at the point of use.
- 6.17. The States have previously agreed that those who produce the most waste should pay the most. The new charges therefore provide financial incentives and rewards to drive behaviour that meets this objective.

¹¹ Billet d'État XXVI of 2014, Article X.

- 6.18. To try to design a system of charging that can achieve this and at the same time addresses every issue of individual affordability would, even if possible, run counter to the Strategy's objectives. As noted above, while the TRP system may attempt to provide a measure of 'fairness', it would not in itself protect moderate income households from relatively high waste charges in future.
- 6.19. Any issue of individual affordability is best dealt with through the existing benefits system, which can identify who is in genuine need of financial support and provide direct assistance.
- 6.20. From the perspective of the Waste Strategy, support is better addressed by providing assistance, services, and information to help low income households reduce waste and therefore bills.
- 6.21. The least desirable option would be to discount in some way the user pays element – for instance providing free refuse bags. Reducing the amount of waste the island produces, and has to deal with, will benefit the whole community, and therefore every household has a part to play. Everyone will have the opportunity to reduce black bag waste; for instance through separate food waste and kerbside recycling collections. Removing the 'user pays' element would effectively allow some to abdicate responsibility for the waste they produce, which runs counter to the objectives of the Strategy.
- 6.22. The 'standing charge' elements do however lend themselves to potential rebating. Most likely, the WDA fixed charge would be the preference, since this would be under direct control of the STSB.
- 6.23. By way of example, if the annual WDA fixed charge was £100, it would cost around £250,000 a year to provide a full rebate to one in every 10 households. That level of funding could, potentially, be raised by increasing the WDA charge by around £10 a year.
- 6.24. Any such arrangements would best be dealt with through the existing welfare system. This will therefore be progressed with the Committee *for* Employment & Social Security and with PR&C to identify what assistance might be required and the appropriate mechanisms and sources of funding.

7 Costs

- 7.1. Best and final offers and tendered bids have now been received for the main contracts for the proposed new facilities and services. The STSB considers the current proposals represent the best commercial deal achievable and best value for money, following a complex tender process for a number of contracts and services, detailed negotiation, and value management reviews. The current status is shown in Table 1.

Capital works and services	Current status
Transfer station infrastructure	Preferred bidder AmecFW has submitted a conditional 'best and final offer' for the capital works
Transfer station and HWRC operations	Preferred bidder States Works has submitted a 'best and final offer' for the operating service level agreements.
MRF recycling processing services	Preferred bidder Guernsey Recycling Group has submitted a 'best and final offer' for the service contract.
Export of RDF for energy recovery	Geminor UK has preferred bidder status after a successful tender for this service contract.
HWRC infrastructure	An innovative modular system has been identified and costed, and estimates obtained for groundworks. An appropriate procurement strategy is being developed.
Repair and reuse service	A pilot contract for 6 to 12 months is being explored.
Export and treatment of food waste	Soft market testing for UK anaerobic digestion facilities has been completed.
Recycling collection services	The interim kerbside scheme is extended to the end of 2017. The preferred longer term option is for separate collection of dry recyclables (including glass) and food.

Table 1 - *Waste Strategy contracts*

- 7.2. All solid waste management costs of the Waste Strategy referred to in this Policy Letter are to be managed through the Solid Waste Trading Account¹².
- 7.3. Total costs over 20 years are expected to be around £298.5 million, of which capital costs are £32.2 million (Table 2) and operational costs £266.2 million (Table 3).
- 7.4. A planning application for the proposed transfer station and HWRC was submitted and published in January 2016, and planning permission was received in July 2016. This completed a significant stage in the procurement, and development of the design has also enabled more refinement of costs.

¹² The Solid Waste Trading Account was established in January 2014 to consolidate future financial management and reporting for all solid waste management activities, whether income and expenditures for business as usual activities, or costs of waste strategy development and delivery.

Capital Expenditure

- 7.5. The total waste infrastructure capital budget is now estimated to be £32.2 million. A comparison with the current estimates is provided in Table 2.
- 7.6. It is intended that these costs will be funded by a loan from the proceeds of the States of Guernsey Bond Issue (of December 2014), as identified in the 2016 Budget report.

	Strategy capital expenditure		
	Pre-tender estimate (£ million)	Dec 2016 (£ million)	Variance (£ million)
MRF	5.6	-	↓ 5.6
Food waste processing	3.6	2.4	↓ 1.2
Transfer Station	7.8	13.1	↑ 5.3
Site development	5.8	9.8	↑ 4.0
HWRC/Repair & Reuse¹³	3.0	2.0	↓ 1.0
Capping Mont Cuet	2.0	0.3	↓ 1.7
Kerbside vehicles	1.7	-	↓ 1.7
Risk contingency¹⁴	-	3.1	↑ 3.1
	29.5	30.7	↑ 1.2
Professional adviser fees¹⁵	1.2	1.5	↑ 0.3
	30.7	32.2	↑ 1.5

Table 2 - *Capital expenditure on Waste Strategy infrastructure*

¹³ A CA site and Repair & Reuse centre were identified separately in 2014. It is now proposed these can be combined within a single HWRC facility at Longue Hougue.

¹⁴ The pre-tender estimate for each element included optimism bias, which is a generally accepted method of allowing for cost uncertainty at the early stages of a project. The risk contingency now is calculated on a probability weighted basis in accordance with States wide risk management practices on projects and programmes.

¹⁵ Professional advisor fees were identified in the 2014 policy letter as anticipated expenditure but not included in the capital estimates.

7.7. Points to note:

- While not all facilities originally envisaged remain within scope of the programme, all the recycling and waste management services and activities that were integral to the Strategy approved in 2012 will still be delivered.
- Total capital costs for the programme, including professional adviser fees, are currently within 5% of figures put forward in the 2014 policy letter.
- MRF facilities for sorting and processing household dry recyclables are expected to be provided by the private sector. Negotiations are at an advanced stage. Capital expenditure by the States is therefore not immediately required, but space is reserved at Longue Hougue should it become necessary to construct a facility in the future.
- Food waste processing will now take place inside the transfer station, and not in a separate building. Removal of the latter element from the project scope achieved a significant reduction in potential capital costs (c. £12 million net of the increase in the cost of the transfer station to accommodate food waste processing).
- Higher design and build costs for the waste transfer station are largely attributable to an increased footprint – now approximately 3,000m² compared to the pre-design estimate of 1,800m². Glass processing is also now included in the transfer station.
- Expenditure by the States on new kerbside collection vehicles is not anticipated, but will still be provided by private contractors as necessary in performing their operating contracts.
- Capital expenditure represents approximately 11% of total Strategy costs over 20 years.

Operating costs

7.8. Updated estimates of operating costs over 20 years for the solid waste Strategy, including collection costs, are c. £266.2 million (on an aggregated nominal basis). This is £42.6 million above the pre-tender estimate presented to the States in 2014. A breakdown of the 2014 and current estimates is provided in Table 3.

7.9. Unless stated otherwise, current figures are quoted based on tendered or market tested prices, reflect the position achieved in negotiations by the end of 2016, or are based on current operational costs as adjusted for anticipated changes in operations.

Strategy operating costs (20 years)			
	Pre-tender estimate (£ million)	Dec 2016 (£ million)	Variance (£ million)
Collection costs			
Kerbside recycling	20.2	39.9	↑ 19.7
Residual waste	14.1	20.0	↑ 5.9
	34.3	59.9	↑ 25.6
Operating costs			
RDF production & export	56.8	89.3	↑ 32.5
Food waste processing & export	4.6	8.4	↑ 3.8
Dry recycling processing & export	17.6	11.3	↓ 6.3
Commercial MRF ¹⁶	11.8	-	↓ 11.8
HWRC/Repair & reuse	10.0	12.8	↑ 2.8
	100.8	121.8	↑ 21.0
Mont Cuet	17.6	16.7	↓ 0.9
Longue Hougue (inert)	6.9	7.7	↑ 0.8
Fontaine Vinery	-	1.4	↑ 1.4
Other costs ¹⁷	30.5	23.2	↓ 7.3
	55.0	49.0	↓ 6.0
Life cycle asset replacement¹⁸	5.4	7.0	↑ 1.6
Provisions	10.3	9.0	↓ 1.3
Financing costs	17.8	19.5	↑ 1.7
	223.6	266.2	↑ 42.6

Table 3: *Waste Strategy operating expenses*

¹⁶ Since the pre-tender stage, decisions have been made regarding States participation in the commercial waste sector. It is not anticipated this will include MRF provision.

¹⁷ "Other costs" are business as usual expenditure other than for waste sites separately identified. This includes, for example, waste minimisation and recycling initiatives, bulk refuse services, operational staff costs, communications and supervision by STSB.

¹⁸ Provisional estimate has been made for an asset replacement cycle of approximately 7 to 10 years in line with industry norm.

7.10. Points to note:

- Collection costs are included for completeness and are indicative only. At almost £3.0 million per annum, they are considered a worst case scenario - current combined annual costs for residual waste and dry recycling collections are around £1.5 million. The estimates are conservative and were developed in consultation with external technical advisers. Generous allowances were made, for instance, for assumed investment in new vehicles. Ultimately it will be for Douzaines to tender and negotiate these contracts and recover the costs from parishioners.
- A service level agreement is being negotiated with States Works for the operation of the transfer station and HWRC, at a combined annual cost of c £3.1 million. This compares with pre-tender estimates of only c £0.8 million a year, which clearly was significantly understated. In addition to staff costs, just the wrapping for RDF bales is estimated to be around £0.3 million a year, and annual ground rent payments to Property Services a further £0.3 million.
- The tendered costs per tonne for RDF export to an identified ERF in Europe fall within the range set out in the 2014 States Report. A proportion of the underlying costs to the supplier are denominated in a foreign currency. The project team is monitoring exchange rate movements against Sterling, and provision has been made within the financial estimates for potential exchange rate and transport industry inflation risks.
- Provisions include allowance for repairs and maintenance to the site bund, buildings and equipment where these may not be covered within current contractual arrangements. These allowances are under review pending finalisation of contracts and confirmation from suppliers of lifecycle costings for processing plant and equipment.
- In line with assumptions used in the 2014 States Report, finance costs stated above are based on a loan repayable over 20 years, with an interest rate of 5%. However, the interest rate is expected to be confirmed at no more than 4% once borrowing terms are formally agreed¹⁹. This would reduce cost estimates by c. £5 million (a potential saving of around £5 per household per annum).

¹⁹ Loans advanced from the proceeds of the States of Guernsey Bond Issue have to date been made on average at 3.8%. Budget Report 2016, paragraph 9.24.

Collection costs

- 7.11. The estimates of collection costs in Table 3 include introduction of separate food waste collection and inclusion of glass in kerbside arrangements for dry recyclables. This is in accordance with the previous decisions of the States in approving the Strategy.
- 7.12. In preparing these estimates, detailed modelling was carried out to assess a range of different options for collecting and processing household waste and recyclables. Annual costs vary depending on which materials are collected separately, and in what combinations and frequency²⁰.
- 7.13. For completeness, the baseline was taken to be collection for residual black bag waste only and just bring banks for recycling. In other words, the arrangement that was in place before the current, interim kerbside scheme was introduced.
- **Scenario 1 - Maintain the current (interim) kerbside scheme.** The incremental cost over and above the baseline was estimated at around £27 per household per year, or approximately 50p per week. However further improvements/efficiencies can be made, in terms of rationalising vehicles, and reducing the frequency of residual collections, with the introduction of weekly food waste collection.
 - **Scenario 2 – Optimise kerbside recycling and introduce food waste collections.** With optimised arrangements for other materials, the incremental cost compared to the baseline is estimated to be around £25 per household per year, or approximately 50p per week.
 - **Scenario 3 - Introduce food waste and glass collections.** The incremental cost, compared to baseline, is estimated to be around £45 per household per year, or approximately 90p per week.
- 7.14. Therefore compared to the cost of Scenario 1 (i.e. maintaining the current kerbside collection arrangements), introducing separate food waste and glass collections, with improved efficiency, (Scenario 3) will incur incremental additional cost of around £18 per household per year, or approximately 35p per week.

²⁰ The calculations were for comparison purposes only. Collection costs were based on detailed modelling of routes, vehicle requirements/types, and consistent labour rates. Processing costs were included for the different waste streams based on the pre- and post-tender estimates for the different treatment facilities and services being procured. Hence the additional cost of collecting food waste separately, for instance, is offset by a reduced requirement to export this material as RDF.

- 7.15. Moving from parish boundary-based collection rounds to an island-wide arrangement would potentially achieve savings of £150,000-£250,000 per year through improved efficiencies. At this stage this is not a firm proposal, but demonstrates the potential opportunities for realisable savings, which could reduce household bills by up to £10 a year. This will be explored further with the parishes, who are responsible for arranging collections.
- 7.16. For the avoidance of doubt, the estimated average household cost of £7 per week is based on adopting Scenario 3. It is therefore inclusive of the additional food waste collection agreed by the States in approving the Strategy, and the inclusion of glass in kerbside collections.
- 7.17. To revert back to bring banks only could potentially reduce the cost per household by less than £1 per week. That would however preclude achieving the agreed recycling target of 70% by 2025 (or 2030, if that change is adopted). Separate collection and processing of food waste is fundamental to that target, and is a key driver to increases being achieved elsewhere.
- 7.18. Moving back only to collection of residual waste and relying solely on bring banks for recycling would realise some saving, but is unlikely to achieve any future improvement in recycling. It would also mean too much reliance on infrastructure that sometimes struggles to cope with the demands placed upon it, something that was particularly evident prior to the introduction of kerbside collections. In addition, many bring banks are in less than ideal locations (e.g. coastal car parks) and the aspiration is to reduce, rather than increase, their number.

8 Time scale and impact of delays

- 8.1. There are now significant implications to any delay in the procurement and commissioning of the much-needed infrastructure. These include cost, but also almost inevitable disruption to waste management services and business continuity.
- 8.2. It is currently anticipated that, subject to necessary approvals, the earliest a contract for the transfer station design and build project can be awarded is April 2017.
- 8.3. From January 2017, additional costs may be incurred on the main infrastructure contract to compensate for construction industry inflation since the original bid submission in early 2015, plus internal resource costs. Together these are estimated at up to £75,000 per month. The risk register (and therefore total costs) makes allowance for a six month delay, although with best endeavours any additional costs will be negotiated to a minimum.

- 8.4. The time lag between Mont Cuet reaching its optimal level in Q3 2018 and the commencement of exports is currently considered manageable. On the current programme timeline, the proposed facilities at Longue Hougue will begin to receive waste during the commissioning phase in the second half of 2018. Any delay will impact on the future use of Mont Cuet for green waste composting and specially controlled/hazardous waste, and incur significant additional costs.
- 8.5. Securing another site for green waste processing, of suitable size and location, is likely to be prolonged and costly. It would involve a lengthy planning process, including a detailed Environmental Impact Assessment and, depending on the location, potentially a full planning inquiry. It would also require suitable engineering. It is therefore important that the optimum fill level at Mont Cuet is not exceeded.
- 8.6. Ignoring long-term arrangements for green waste and special/hazardous waste, landfill could continue at Mont Cuet at the current rate until around 2021. By then, waste would reach a fully domed profile of approximately 20m – roughly the height of the Royal Court building - above road level.

9 Engagement and consultation

- 9.1. During 2010/11, the then PSD undertook an extensive engagement and consultation process²¹. It included an independent Consultation Review Panel to ensure transparency during the development of the Strategy. The information from that period was used to directly inform and shape the Strategy approved by the States in 2012.
- 9.2. The Law Officers of the Crown have been consulted and have provided advice and analysis throughout the implementation of the Strategy. This has been key to minimising any potential conflicts with the current WMP, relevant legislation, relevant extant States' Resolutions and the information that came to light during the procurement process for the various facilities and services required to implement the Strategy.
- 9.3. When the procurement process was at an advanced stage presentations were provided to Members from all Committees, including CfE&I, P&RC, and Scrutiny Management Committee, as well as Douzaines.
- 9.4. A stakeholder workshop programme, public drop-ins, newsletters, and numerous media briefings have also been implemented, as well as presentations to States Members at key stages, including publication of policy letters and periodic updates. Public consultation was undertaken prior to the recent approval of the Longue Hougue planning application.

²¹ As detailed in Billet d'État IV of 2012, Article VII, Appendices 3 and 11; also mentioned in Billet d'État II of 2014, Article I, paragraphs 9.1 and 9.2 and 30.4.

- 9.5. Previous experience has demonstrated understandable concerns within the community regarding past and present waste strategies - often vocally expressed. However there is no consensus on what represents the optimum solution, and no approach has ever achieved universal popularity.
- 9.6. As part of the public engagement in developing the Strategy, a series of workshops were attended by a wide cross-section of the community. These dealt with the issues in great detail, and it was possible to achieve an outcome that was broadly supported, and has been adopted.
- 9.7. Even if the Assembly were minded to consider alternatives at this late stage, they could not be achieved in the time available, given the lengthy process involved in implementing any new infrastructure.
- 9.8. Ideally there would not be the current urgency associated with making the necessary decisions. However on balance, to deliver the aims and objectives of the Strategy, using contracts that provide the best value for money achievable, the STSB recommends the States to approve the Propositions.

10 Propositions

The States are asked to decide whether they are of the opinion:-

1. To rescind Resolution 2 of 1st February, 2007 on Billet d'État No. I of 2007, Resolution 2 of 30th November, 2007 on Article XII of Billet d'État No. XXIV of 2007, Resolution 4 of 9th December, 2010 on Article V of Billet d'État No. XXIV of 2010 and Resolution 1 of 22nd February, 2012 on Article VII of Billet d'État No. IV of 2012, and approve revised recycling targets to apply only to waste generated by households as follows:
 - a. 60% by the end 2022; and
 - b. 70% by the end of 2030.
2. To rescind the following resolutions of 12th February, 2014 on Article I of Billet d'État No. II of 2014 –
 - a. Resolutions 4 and 5, in relation to tendering for the Transfer Station and the transportation and export of residual waste to an off-island energy from waste facility;
 - b. Resolution 6, in relation to the approval of recommended tenderers and the release of relevant funds for capital and operational costs for the Transfer Station and the transportation and export of residual waste to an off-island energy from waste facility;

- c. Resolution 7, in relation to tendering for other on-Island infrastructure; and
 - d. Resolution 8, in relation to the approval of recommended tenderers and the release of relevant funds for capital costs up to a total sum not to exceed £29.5 million.
3. To approve the change in the method of treatment of food waste from on-island In-Vessel Composting to the export and transportation of food waste and its subsequent treatment at a suitable off-island facility.
4. To authorise the States' Trading Supervisory Board:-
- a. to tender for the export and transportation of food waste and its subsequent treatment at a suitable off-island facility;
 - b. to continue the tender process for the export and transportation of residual waste and its subsequent treatment at an off-island energy from waste facility;
 - c. to continue the tender process for the construction or operation or the construction and operation of -
 - i. a Transfer Station;
 - ii. a Materials Recovery Facility;
 - iii. a Household Waste Recycling Centre; and
 - iv. a Repair and Reuse Centre and any other general site infrastructure at Longue Hogue,

and to direct the States' Trading Supervisory Board, on receipt of tenders, to submit a full business case or cases in relation to such infrastructure and services, to the Policy & Resources Committee, in accordance with any requirements of the Policy & Resources Committee.

5. To authorise the States' Trading Supervisory Board to approve tenderers for any of the facilities or services referred to in proposition 4, subject to prior approval of a full business case relating to the facilities or services in question by the Policy & Resources Committee and to direct the Policy & Resources Committee, upon its approval of such a full business case and the approval of the relevant tender by the States' Trading Supervisory Board, to make available a loan from the proceeds of the States of Guernsey Bond Issue (of December 2014) to fund the capital costs of such facilities or services; and to direct the States' Trading Supervisory Board to fund the loan interest and capital repayments from the Solid Waste Trading.

6. If any of the costs of the Solid Waste Strategy exceed those indicated in the Policy Letter, to delegate authority to the Policy & Resources Committee to approve revisions to the relevant estimated capital and operational costs.
7. To note that all solid waste management costs of the States referred to in the Policy Letter are to be managed through the Solid Waste Trading Account in accordance with Resolution 2 of 12th February, 2014 on Article I of Billet D'Etat II of 2014 and to direct the States' Trading Supervisory Board to recover such costs fully through charges to householders, businesses and other users of waste management services.

11 Committee support for proposals

- 11.1. STSB member Mr Stuart Falla MBE has declared a conflict of interest and has not participated in any discussions or voting regarding the Waste Strategy implementation nor been privy to any related documentation, including minutes of meetings where such matters have been considered.
- 11.2. In accordance with Rule 4(4) of the Rules of Procedure of the States of Deliberation and their Committees, it is confirmed that the propositions above have the unanimous support of the other members of the STSB and the CfE&I.
- 11.3. In accordance with Rule 4(5), it is confirmed that Proposition 1 relates to the purpose and policy responsibilities of the CfE&I and Propositions 2 to 7 relate to the duties and powers of the STSB (see also paragraphs 2.1 and 2.2).
- 11.4. In accordance with Rule 4(5) the preparation and agreement of the propositions and content of the Policy Letter has involved joint working between the CfE&I and the STSB. The PRC have also been consulted on the propositions and Policy Letter.

Yours faithfully

C N K Parkinson
President, STSB

J C S F Smithies
Vice-President, STSB

J C Hollis
Non-States Member, STSB

B L Brehaut
President, CfE&I

M H Dorey
Vice-President, CfE&I

S L Langlois
H L de Sausmarez
S T Hansmann Rouxel
Members, CfE&I

APPENDIX 1 – Abbreviations and glossary

AD	Anaerobic digestion	Treatment where bacteria digest organic waste in an oxygen-free environment. The gas produced is used to recover energy.
CA site	Civic amenity site	See HWRC.
ERF	Energy Recovery Facility	A commonly used technology, also referred to as Energy from Waste. Household and commercial waste is heat treated and energy recovered through electricity generation and/or as heat (for local use).
HWRC	Household waste recycling centre	A facility to take certain types of domestic waste for reuse or recycling.
IVC	In-vessel composting	Composting organic waste in a controlled environment to reduce odour and provide the right conditions to maintain output quality.
MRF	Materials recovery facility	A plant used to separate co-mingled recyclables, using manual and/or automated sorting. Also used to recover recyclable materials from mixed commercial waste.
RDF	Refuse derived fuel	Fuel produced from combustible waste that can be stored and transported, or used directly on site to produce heat and/or power.
Repair and reuse		Redistribution of unwanted but usable materials and equipment from one entity to another (includes repairing items where necessary).
Residual waste		Waste that remains after the removal of reusable, recyclable, or compostable material - at source or through a separation process. In a domestic sense, often referred to as 'Black Bag' waste).
Solid Waste Trading Account		Consolidates financial management and reporting for all solid waste management activities, whether income and expenditures for business as usual activities, or costs of waste strategy development and delivery.

Sustainable waste management	Efficient use of materials to reduce and manage waste so that it contributes to the economic, social and environmental goals of sustainable development.
Waste acceptance criteria	Specification a receiving facility sets for how waste is to be delivered and what it can contain. Non-compliance would incur additional cost or rejection of a load.
WDA Waste Disposal Authority	The WDA has various statutory functions. These include making arrangements for the island's waste management, in accordance with the States' WMP, and provision of sites for reception and recovery or disposal of household and commercial waste. It is also responsible for periodic reviews of the WMP and recommending amendments to the Committee <i>for the Environment & Infrastructure</i> .
WMP Waste Management Plan	The statutory document which identifies the categories and quantities of waste to be managed, the methods and facilities for disposal, estimated costs, and arrangements for recovery of costs.
Waste transfer station	A facility where waste from household and/or commercial sources is prepared for onward transport and treatment (in accordance with Acceptance Criteria for the receiving plant).