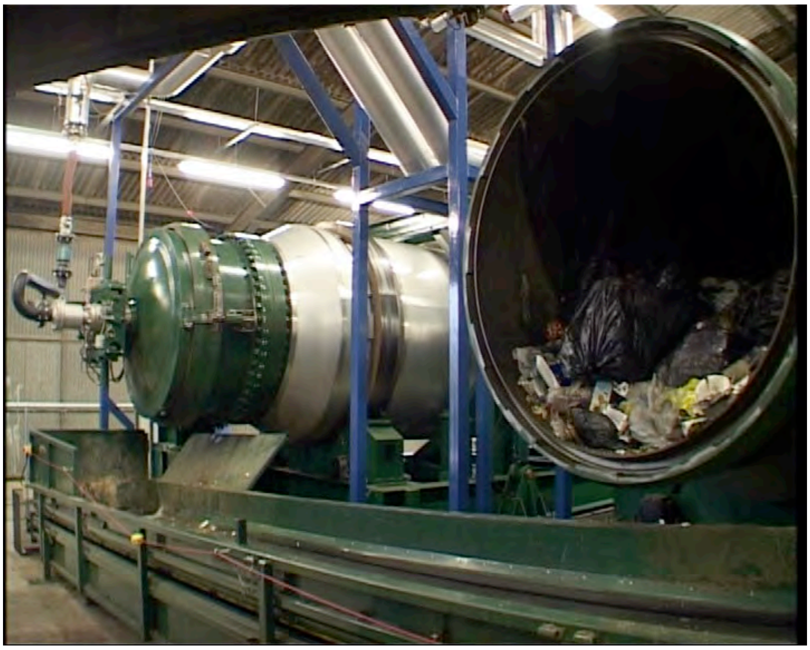
Business Proposal
&
Cash Flow Projections
For
Infrastructure Investment
In a
Composite Waste Management Solution
for
Jersey, equivalent to
100,000 tonnes per annum

To submit proposals to address the burgeoning issues of alternatives to landfilling of Municipal Solid Waste through the use of proven technologies to the States of Jersey, the Channel Islands



The RCR Group Consortium Working for a Greener and more Sustainable Environment

For Limited Distribution for Jersey, Channel Islands

This document is based upon desktop analysis of legislation, policies and practices. Documentary and web findings have been tested. Written responses from the different jurisdictions have mostly been incorporated. The findings do not claim to be definitive or complete, but represent a 'snapshot' of waste management concerns, issues and actions as presented to Jersey . They are presented in good faith to facilitate better and more coordinated waste reduction practices.

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1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

Municipal solid waste (MSW) is defined by the OECD as waste collected by municipalities or on their order. It includes waste originating from households, commercial activities, office buildings, institutions such as schools and government buildings, and small businesses that dispose of waste at the same facilities used for waste collected by municipalities. North Americans have one of the highest per capita generation rates in the world.

The generation of MSW directly reflects upon the consumption patterns and wasted resources. MSW is collected from households and trucked to landfills, composters or incinerators. Although some of the landfills are managed to mitigate impacts on the environment, there is still the potential to contaminate groundwater, soil and air. In addition, landfills use large tracts of land, which in densely populated areas are becoming a rare commodity. Incinerators, which require less land, inevitably cause the depreciation of the surrounding land value due to lowered air quality.

WASTE GENERATION

In 2006 population of Jersey was 84,200 people and the MSW generated in 2006 was 87,500 tonnes of MSW is produced in Jersey annually. In addition, agriculture accounts for 13,000 tonnes, of which 1,000 tonnes are plastics and the balance green waste composted at La Collette, along with a further 12,000 tonnes of green waste made up of grass cuttings, hedge-trimmings and the like generated twice yearly under the Island's compulsory branchage / hedge-trimming scheme which amounts to a further 25,000 tonnes.

The first three principal waste streams are:

1. Domestic waste 33,000 tonnes,
2. Commercial waste 29,100 tonnes and
3. Inert industrial waste 25,400 tonnes.

The fourth and biggest waste stream arise from industrial, construction and demolition activities; and this amounts to 315,000 tonnes, aggregating to 427,500 tonnes per annum, to which should be added around 250 tonnes of clinical waste and more than 2,000 tonnes of seaweed and beach and street sweepings which are dumped at La Crête Quarry, making a grand total of 429,750 tonnes per annum.

Residential and commercial wastes have been combined for the purpose of this business model. However, the other categories of waste are all to be treated within the same Recursive Recycling facility and will be comprehensively and compliantly treated and disposed of leading to a diversion from landfill of close to 95% of all wastes whilst achieving a 98% recycling rate.

WASTE COLLECTION

There are serious issues with the collecting, transporting and processing of MSW because of the nasty odour associated with the waste which has both a high moisture content and also a high organic content.

We would propose siting a number of static compactor units around the island both in the residential and commercial areas where MSW could be

disposed of into an enclosed compactor unit that is deodorized and can hold more than 10 tonnes of MSW. It avoids the collection and transportation of rainwater, windblown litter is no longer a problem, odour is reduced if not completely eliminated and vermin are unable to feed on the high organic content.

Based on the total MSW generation rate of 87,500 tonnes in 2006 the cost per tonne for collection would be £32.00 and disposal of MSW £38 within the island would be the equivalent to £70.00 per tonne. It is anticipated that branchage material and potatoes will be delivered to the process plant.

RCR would propose to provide a quantity of static compactor units. These eliminate litter, vermin, insects, odour and reduces vehicle movements. The compactor unit can be fitted with equipment that is capable of lifting and emptying small wheeled waste bins, if this is needed for certain locations in small markets.

The unit can be located to provide a "through wall" chute loading direct from a supermarket or high volume waste generator, or can be located in areas with narrow streets where regular compactor collection vehicles could not easily enter or maneuver. Also in small villages or areas where there are few people but waste has to be centrally located for collection and a clean and proper service has to be provided.

Each compactor unit is fitted with a wireless signaling device that will communicate with RCR's central management computer and the Fleet Manager's fax machine with a Pick Up Request. It is automatically sent when the unit is nearing capacity and at the same time generates a management report. The signal reports on the units activity and advises on the level of capacity reached on a timed frequency basis. It is fitted with a remote diagnostic maintenance monitor for the hydraulic system, notifies need of service along with oil levels and oil temperature to ensure optimum, effective and safe operation of the remote compactor unit.

This remote device does not require any land telephone line and completely eliminates pick ups of partially filled compactor units; it eliminates employee physical checks on the units; it also eliminates false capacity readings normally caused by temporary jams or surges; any seasonal changes in use, capacity issues are eliminated as the unit is monitored and reports independently when it is nearing capacity; timely pick-up and replacement with an empty unit avoids build up of waste, or litter and scavenging by informal waste pickers, animals or vermin.

COLLECTION CHARGES AND TIPPING FEE APPLIED WITHIN THIS PROPOSAL

It would be the intention of Recycled Refuse International (RCR) to provide a fleet of new vehicles to create an island wide unified collection service, rather than the four separate systems operated by various of the parishes. Twenty-two (22) new, modern, very fuel efficient environmentally compliant, compactor vehicles that would replace the aging fleet of vehicles currently being used and would demonstrate a significant saving over existing collection charges. And provide a seamless collection service throughout the island.

The Gate Fee (or Tipping Fee) for the RCR STAG proposal would be £32.00 per tonne and the proposed Collection Charge would be £38.00 per tonne.

OVERVIEW

The States of Jersey have determined to follow the lead of the Isle of Man and embark upon an unpopular route of purchasing an incinerator that will involve a budget expense of just over £80,000,000 (with inevitable cost over runs if history where to be repeated) taking into account the cost of dismantling the existing incinerator. The proposed location is to be La Collette near the waterfront development.

It is widely accepted by experts that incineration today is very clean and effective and with minimal emissions to atmosphere given the expensive and efficient stack cleaning equipment. It is also recognized that incineration is only a 75% disposal solution with around 3% representing highly toxic fly ash and 21% to 22% bottom ash, which is removed from the grate of the incinerator. According to the management of the incinerator and States Officials the present arrangements for disposing of fly ash is to specially designed pits that are monitored and managed at La Collette. The bottom ash is also deposited at La Collette and when asked recently, Pubic Services estimated that there would be around 5 or 6 years of ash disposal capacity at La Collette before that facility or disposal option had been exhausted.

The States of Jersey have not located an alternative disposal site for this ash. They have not held public consultation or instituted a search for a suitable disposal site for what will be around 25,000 tonnes of toxic ash every year. An environmental impact study would need to be carried out – a minimum of one year for winter and summer precipitation rates, the determination of vulnerability issues to fauna and flora and of ground or surface water proximity, air quality and finally proximity of the disposal site to residential settlements.

If the public estimates given by Mr. John Richardson are correct, then it would appear that with a lead time of two years or so for the delivery of the incinerator there would be only a maximum of four years storage facilities available for ash. Nothing has been said to address the issue of disposal of ash beyond the date when La Collette is considered at capacity. Equally Mr. Richardson has remained silent on the state, capacity, condition and operating cost of the special storage pits for the fly ash. The disposal of fly ash does represent a very significant issue since EU regulations do require a 5:1 mix of concrete or bitumen to the fly ash, which would place a huge burden on existing disposal arrangements.

Recent media comment reporting statements made by Jersey officials would indicate that the island would be delighted to strengthen its approach to the management of its MSW and as such would like to undertake a "Zero Waste Initiative" that will culminate in an integrated solid waste management plan for Jersey. As a consequence Jersey would like to improve its MSWM (Municipal Solid Waste Management) services and provide better value for money for those services that it currently provides in serving the population and in that respect there is a need to review and refine a global waste management strategy has been developed.

The RCR STAG Recursive Recycling is a technology-based solution that is capable of extracting as much as £50 per tonne for every tonne of MSW, which is currently being buried. All of the various components within the Recursive Recycling suite of technologies are covered by world patents, have hundreds of reference sites around the world in varying locations and are thoroughly tried, proven and tested. Typically an unsustainable practice is to recover plastic bottles, bale them and ship then to the UK for onward shipment to China for a fraction of its true value.

Also as part of that Initiative, Jersey would like to implement its strategy through contribution of private capital, given their reluctance to borrow additional funds and with the transition period approaching in respect of the overhaul and radical changes in States tax revenue collection of 0: 20, as well as through public private partnerships. Respectively, Jersey has to consider the conditions, and capacity of the Municipal Administration in order to be in a position to manage the private involvement in an efficient and reliable way. This overview report provides the tools for the Municipal Administration to implement its MSWM strategy and to be active in its changing role.

Jersey is in need of an environmentally compliant and cost effective solid waste management system to ensure better human health, safety and sustainability. The system needs to be safe for workers and safeguard public health. In addition to these prerequisites, an effective solid waste management must be environmentally sustainable and economically feasible. It is quite difficult to minimize these two variables, environmental impacts and cost simultaneously.

The balance that needs to be struck is to reduce the overall environmental impacts of waste management as far as possible, within an acceptable level of cost. An economically and environmentally sustainable solid waste management system is effective if it follows an integrated approach i.e. it deals with all type wastes from generation and its disposal. The integrated approach must be based on a logical hierarchy of actions.

The steps, in order of priority, which must be taken by Jersey, are as follows:

- Minimize the production of waste or source reduction
- Maximize waste recycling and reuse
- Encourage waste processing
- Promote safe waste disposal

Modern accepted practice is to process MSW to recover, recycle and reuse as much as possible rather than maintain historic practices of landfilling. In this context Jersey is encouraging enterprises to set up processing plants.

Furthermore, Jersey is presented with the advantageous option of seamless integration of additional, and currently separate, waste streams including Household Hazardous Waste (HHW), medical waste, liquid toxic waste, sewage screenings, end-of-life tires, agricultural waste and yard debris, end of life vehicles (ELV), used oil, and end of life electrical equipment (WEE) whereby all materials are processed and recycled into beneficial products and in full compliance with pertinent European and Jersey legislation.

This business proposal is based on the construction of one (1) RCR STAG Recursive Recycling Municipal Solid Waste (MSW) treatment facilities, one (1) C&D and clean inert materials (including glass) recycling station; one (1) end of use tire deconstruction plant; one (1) waste oil recovery and re-refining facility; one (1) regulated medical waste treatment facility and clinical waste disposal unit; one (1) inert industrial and hazardous waste disposal facility: fragmentizing and deconstruction of end of life electrical equipment and end of life vehicles to process all of the domestic, commercial and light industrial waste, all agricultural wastes, all branchage material, waste or unsuitable potatoes that is disposed of annually within Jersey.

In this Business Case Model, the basic project concept and the economic feasibility of the project is examined. In addition a fleet of 22 new collection vehicles and remote static compactors and vehicles to uplift and move these mobile waste facilities around the island.

1.2 BENEFITS TO JERSEY

The immediate benefits to Jersey resulting from the implementation of the project described herein are:

- No outlay of public funds for implementation
- Jersey will attain highest true recycling rates for large municipalities in year one and throughout the term of the proposed MSW management Public Private Partnership
- Complete risk mitigation via AAA Performance Guarantee/bond (100%)
- Public-Private Partnership (PPP) entitles Jersey to permanent representation on the board of directors and unencumbered access to complete information on waste disposition and finances with an absolute guarantee of transparency, accountability and value for money
- Jersey need not implement additional and expensive separate curbside collection for recyclates. There is also no obligation on the waste generator (domestic, commercial or industrial) to source segregate their MSW as the entire MSW stream is accepted at the RCR STAG Recursive Recycling facility and once treated in the autoclave is sanitized as a matter of course and optimized for resale at the waste treatment plant. As RCR receives no monies from landfill, its only incentive is to realize profits from recycling

back into the market

- Arms-length participation eliminates liability and risk to Jersey – a complete divestiture of risk through effective privatization of MSWM.

- The majority of the proposed Gate or Tipping Fee of £32 per tonne and £38 collection fee per tonne paid by Jersey will be returned to Jersey at the end of each audited accounting period through the Public Private Partnership mechanism of transparent and equal profit sharing from the operation of the RCR STAG plant (after deduction of 10% for the IRR on RCR's own risk equity) with an indicative net waste treatment and disposal costs for Jersey of a net £6.31 per tonne. This net cost of £6.31 in the first year is after paying the States of Jersey a profit share of £5,573,194 (assuming all off-take prices can be secured within the local market).

- Current costs on prevailing collection and disposal contract is £90.00 per tonne and are set to increase. This proposal will provide for a Gate Fee of £32 per tonne and a collection charge of £38 per tonne equivalent to a combined £70 per tonne and aggregating to £6,125,000 in the first year of operation and the payment of the profit share of £5,573,194 that would reduce the actual cost of collection and disposal of waste for Jersey to £551,806 for the first year of operation or just a combined collection and disposal cost of just £6.31 per tonne.

- With the current true cost of waste collection and disposal of £90 per tonne, that would have to increase significantly if a waste-to-energy plant were to be ordered and commissioned the estimates for its cost can be simply computed at 5% financing cost on £80,000,000 = £4,000,000; 5% capital amortisation on £80,000,000 = £4,000,000; Operating cost as put forward by Depute Guy de Haye is £38.00 (a highly improbable number given the issues of ash disposal, stack cleaning which in itself is estimated globally at around £40 per tonne for stack cleaning alone) which would be £3,325,000. The total would appear to be £11,325,000 and assuming 87,500 tonnes (on a like for like basis with this proposal) are of the order of £129.44 per tonne and this figure would not include the cost of collection. Current costs borne by the island for disposal of branchage are estimated at an additional £1 million, which would add further to the proposal waste budget. Inevitably cost of living indexation to those costs would see this charge rising to in excess of £150 per tonne within five years.

- Over 12 years of operation with a current true cost for Jersey of £130 per tonne and the proposed combined collection and processing fee of £70 the estimated net savings for the States of Jersey would be £111,324,252. (please see Section 6.6)

- Jersey will be able to lead by example in meeting and exceeding goals for recycling requiring at least 50% of all MSW being diverted from landfill with more than 95% diversion being achievable in optimum conditions.

- The Partnership will be able to displace more than 83,125 tonnes of carbon dioxide annually (worth £184,000) through the implementation of this project (carbon dioxide is a greenhouse gas that contributes to global warming). This figure relates to the amount of electricity generated within the RCR STAG plant to handle the net parasitic load for the plant and equipment operation and export to the national grid. Carbon allowance "credits", called Certified Emission Reductions (CERs) or Emission Reduction Units (ERUs) arising from the Clean Development Mechanism (CDM), which allows countries to finance emission reduction projects. Greenhouse Gas (GHG) mitigation is now an important factor involving the use of biomass to generate electricity, cogeneration, to replace fossil fuel for use in boilers or in the avoidance of dumping biomass in landfills. These credits can help project participants, in this instance the island, to meet their GHG reduction targets and represent a means of acquiring additional revenue and making a significant and visible contribution to Climate Change.

- As much as 150 jobs created in construction and implementation phase

- More than 54 permanent jobs created for the plant; with job sharing this figure could substantially increase. With a 24-hour working day work shift lengths could be split to shorter periods of say, 4 hours, with committed flex-time employment this will enable single parents to re-enter the workplace. Assistance will be given to enable single parents of either gender to re-enter the workplace with the provision of an on site crèche facility (if appropriate).

- In addition it is proposed that RCR provide a fleet of new environmentally compliant MSW compactor collection vehicles. With a daily waste generation of 400 tonnes and a twice-weekly collection there will be a new fleet of 22 vehicles that will require a driver and crew of 3, thus generating 86 jobs for MSW collection.

- The Company's Social Charter as an equal opportunities employer will guarantee career advancement and academic achievement through selection on merit of candidates within the work force to attend university or advanced college courses that will lead to academic recognition and commensurate increased remuneration packages, promotion opportunities and general career advancement. The Company will work with State Universities to fund foundation courses in environmental science, awareness and sustainability (*see section 8.4*) as a diploma, bachelors or masters degree course. RCR will provide free education grants will be awarded on merit to meet all or a proportion of such education. More importantly gender specific employment deprivation will be eradicated with emphasis on encouraging young females and mothers to work and if necessary job-share to enable that employment to be viable and practical for the employee where children may be an obstructive factor. A crèche will be incorporated into each process plant.

- £66,395,000 inward investment over 12 months that includes one (1) RCR STAG Recursive Recycling MSW treatment plants; one (1) C&D recycling stations with integrated C&D derivative densified concrete production; one (1) end of use tire deconstruction plant; one (1) waste oil recovery and re-refining facility; one (1) regulated medical waste treatment facility and clinical waste disposal unit; one (1) inert industrial and hazardous waste disposal facility and a fleet of 22 new vehicles and 4 static compactor units.

- States of Jersey enjoy GST and employment tax revenues from nearly £41,923,547 per year "Green" business sales turnover.

- The island enjoys Best Available Technology (BAT) and Best Practical

Environmental Option (BPOE) and Best Public Value Comparator (BPVC) for the lifecycle needs of the RCR STAG Recursive Recycling MSW treatment plants over the life of the Contract for integrated waste management on targeted wastes that far exceeding current City, State and Federal standards

- Jersey will also benefit from an integrated treatment system for specialized waste streams within the same PPP model, including household hazardous waste (HHW), regulated medical waste, end-of-cycle tires, oversized items, sewage waste, end of life vehicles (ELV), end of life electrical goods (WEE), waste oil and liquid toxic waste streams creating a true "zero waste" and integrated program

- RCR will work closely with Jersey for them to become the Centre of Excellence for the nation in both environmental science education and its applied public policy and implementation of a program of sustainability and cost reduction (or minimization) within the public services sector.

- As waste treatment and disposal technologies advance in the future, Jersey will enjoy seamless integration into its flexible PPP structure

1.3 MUNICIPAL RESPONSIBILITIES

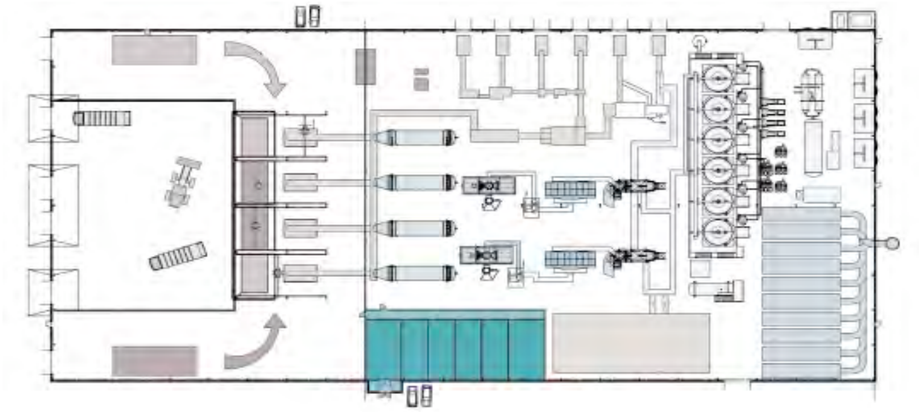
- Enter into a long term MSW processing Contract for an agreed 87,500 tonnes of MSW generated within the Jersey and an additional 13,000 tonnes of agricultural waste, 12,000 tonnes of green waste and 25,000 tonnes of branchage and a substantial proportion of the existing 315,000 tonnes of C&D waste

- Supply the unsorted waste as specified via delivery over the weighbridge of the RCR facility(s)

- Pay the Gate Fee and Collection Fee on time and according to Contract with a minimum "put or pay" payment that correlates to the tons of MSW agreed to be delivered each month (normally the annual agreed tonnage volume divided by twelve)

- Assist RCR in obtaining necessary sites for lease or purchase including permits, planning issues through formal application and through public consultation.

1.4 THE PROJECT



The project has seven key aims:

- To Reduce, Reuse and Recycle close to 137,500 metric tonnes of MSW generated by the designated service area of Jersey and diverting as much as 98% away from landfill

- To supply a fleet of 22 new collection trucks and to operate a scheduled collection system for the 25 year contract (optional).

- To recover the maximum percentage of waste in a sanitized condition for reuse or sale with the resultant revenue streams dedicated to reducing via offsetting sales income the RCR STAG plant operating costs

- To generate 2 MW/hr renewable "green" electrical power from the plant processing all of the MSW generated by the designated service area of Jersey. This is to be used to meet the parasitic load of the recycling plant.

- It is proposed that the 13,000 tonnes of agricultural waste and 25,000 tonnes of branchage (hedge clippings) will also be processed and combined with the organic fraction of the MSW that would be used to convert to 12 million litres of ethanol.

- To create career opportunities and employment for the demographic region of Jersey

- Not jeopardize the livelihoods of individuals currently engaged in waste sorting and recovery by contracting with them for the purchase of recyclates from them, wherever viable

- To improve the groundwater, air quality and generally the local environ

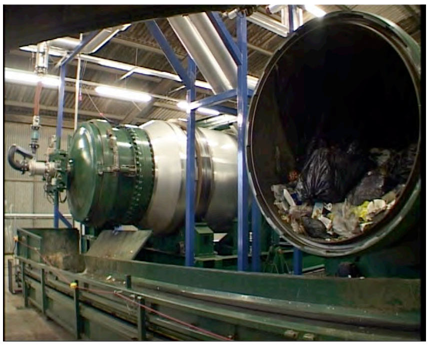
The facilities combine the means to sustainably treat and dispose of MSW and recover sanitized recyclates for reuse and sale while at the same time creating employment and a better and more sustainable environment.

1.5 TECHNOLOGY

The RCR Group have developed a process that uses steam to thermally treat unsorted municipal, light industrial, commercial, hospital and agricultural wastes and sewage screenings to produce a cellulose-based homogenous fibre that is the organic fraction of the MSW that is defined as a biomass, from which recycled ferrous and non-ferrous metals, plastics, glass and batteries can be mechanically extracted.

The technique of sanitizing, detoxifying and complete processing of waste and waste residues in the most cost-effective systems model is called Recursive Recycling.

Autoclaves and thermal hydrolysis have been around for more than 120 years and are used extensively in many industries including metallurgy, medicine, food processing, aerospace and dairy to name a few. It is one of the most proven and mature industrial technologies in use today. RCR STAG Recursive Recycling MSW treatment has developed over 10 years what originally was a novel application for the sanitization and reduction of waste based upon invention in controls and the ability to generate, store, and deliver steam in a regulated manner.



In this process, the entire unsorted waste stream is sanitized for 60-65 minutes with high-temperature (325º F - 160º C) pressurized steam within an overall treatment cycle of 90 minutes. With no source segregation necessary, collection costs to the Jersey are greatly reduced and service times and schedules for collection improved.

The process size-reduces the raw waste by up to 85% of its original volume by mass with weight remaining constant.

Toxins and pollutants are extracted automatically from the waste stream by treatment through clarification, filtration and reverse osmosis of the process condensate.

Upon exiting the autoclave, recyclates are automatically sorted and graded including ferrous metals, non-ferrous metals, plastics and glass through the use of automatic high capacity sophisticated sorting equipment. These recovered recyclates, making up approximately 50% of the waste stream, are further optimized depending upon market demands; metals are shredded and stored for onward shipment to metal smelters; plastics are sorted by plastic type, grade and color and then converted through de-polymerization into premium grade diesel fuel or via proprietary compounding processes to USDA approved food grade granulate for immediate reuse by plastic converters; and glass is ground for onward sale to fibreglass insulation manufacturers, road surfacers, light reflecting paints and materials or for adding strength and anti-erosion qualities to concrete blocks and hydraulic concrete building elements

Sorted and sanitized recyclates in prime condition command market prices 30%-200% higher than outputs from MRRFs (Materials Resource Recovery Facility).

The remaining 50% of the waste stream is a clean, uncontaminated biomass made up of organic fractions. This cellulosic fibre has multiple uses, however it is envisioned that the most optimum long-term use is as a feedstock for the production of electricity.

The fibre can be used as a clean fuel to drive waste heat boilers to make process steam which is used within the STAG Recursive Recycling MSW treatment plant and the surplus to drive a steam turbine to produce green electricity to meet the parasitic load of the process plant and for export to the local grid.

The fibre has been classified as a biomass and is cellulosic fibre that could be used in the manufacture of ethanol and like volatile organic compounds by fermenting carbohydrates, mainly polysaccharide, with microorganisms that convert carbohydrates into mainly butyric acid and other acids.

Ethanol and can be used as a vehicle fuel. There is no gasification, no combustion and no electricity generation because all of the yard waste, paper and organic waste is converted into this vehicle fuel which is completely free of all pollutants. It is a one to one replacement for petrol that we use every day in motor vehicles. The conversion rate will produce 10,000,000 gallons of vehicle fuel. There is no requirement to modify any engine and the fuel economy is about 9% better and you can utilize existing fuel distribution and dispensing facilities in the County

Ethanol is the alternative and we can convert the cellulosic fibre into this material that is a 5% or 10% additive to vehicle fuel as a biofuel required by EU and US Directives. Jersey can therefore be fully compliant. Ethanol can also be used with a mix ratio of 85% Ethanol and 15% petrol to produce an E-fuel which is popular is such countries as Brazil where specifically modified vehicles are produced to run exclusively on this type of fuel.

C&D waste. Jersey lists several C&D items as part of its waste stream. Some, such as concrete, are listed as currently NOT being recycled very successfully. This proposal puts forth a recycling plan for each. The principal objective is to recover, reduce and reuse the majority of C&D waste through recursive processing and added value operations at the plant to produce a wide range of viable building products and thus reduce the reliance upon extracting raw materials.

Recycling and reuse of other C&D wastes are described in a later section.

Compliance with all US, UK and EU air-quality standards is built into the RCR STAG plant design. The RCR STAG (**S**team **T**reatment **A**nd **G**eneration) Process fully addresses and adheres to the initiatives of the UN Earth Summit in Rio de Janeiro 1992 to achieve a sustainable future. The technology has been strongly supported by the British Government's UKTI and is compliant to the Carbon Emissions Reduction Program in accordance with the Kyoto Protocol, as well as all US EPA directives for the treatment of waste.

1.7 PUBLIC POLICY WASTE COMPARISON

As stewards of the public trust, public policy makers are tasked with the quantification and qualification of Best Public Value for a variety of projects. In this section, the available waste options compiled from independent third party assessment in Europe, Africa and the US are summarized utilizing critical success factors and weighted scoring common to recent public tenders.

The critical and non-critical success criterions are presented on the following page. The results confirm the recent findings of other major world cities including Glasgow in proving the RCR STAG Recursive Recycling with Bio-refinery is the Best Public Value available today.

Comparative process flow charts are also presented in the following.

EVALUATION SECTORS:

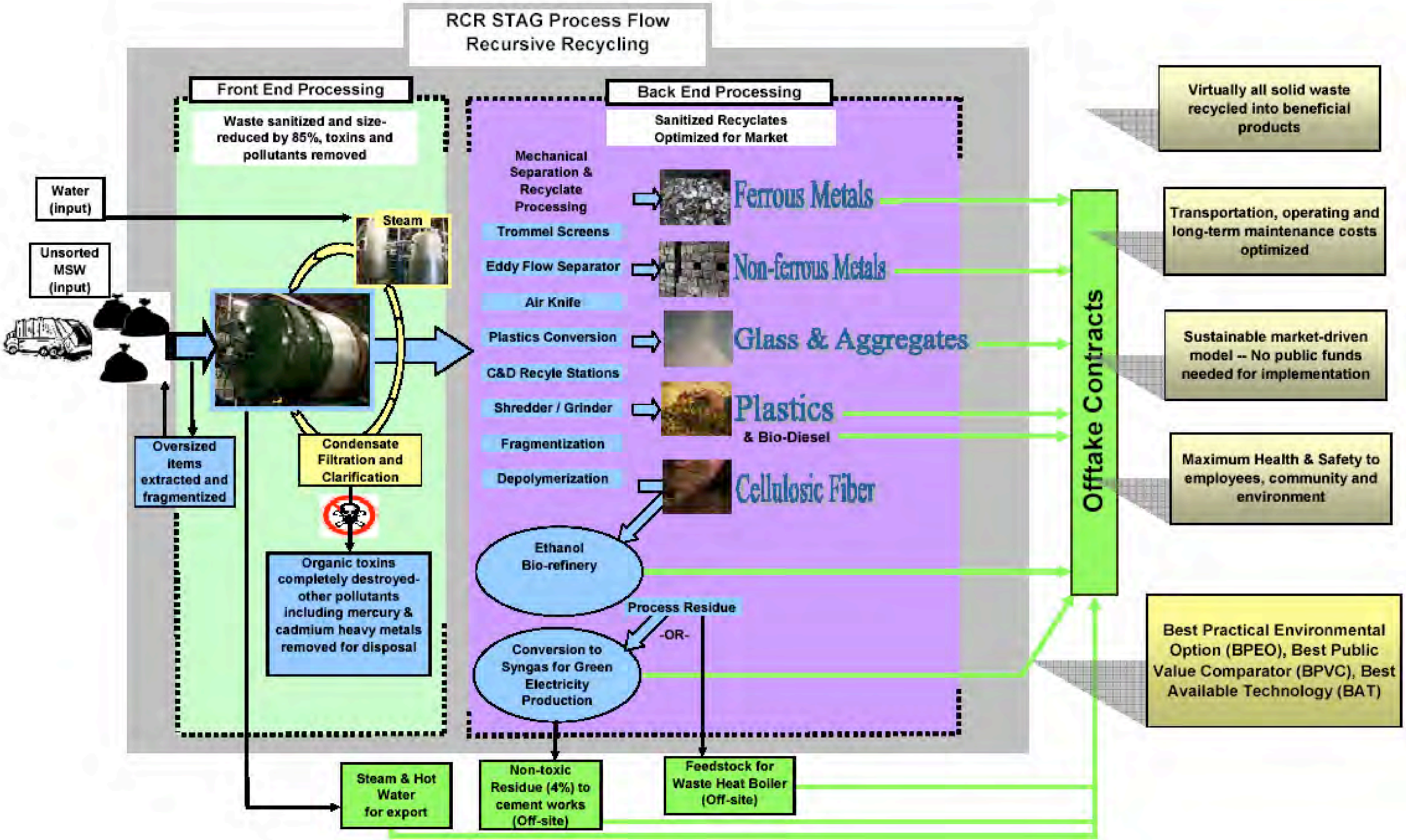
Technical Aspects:	40%
Financial Aspects:	30%
Environmental Aspects:	10%
Risk Profile:	10%
Other (non-critical factors):	10%

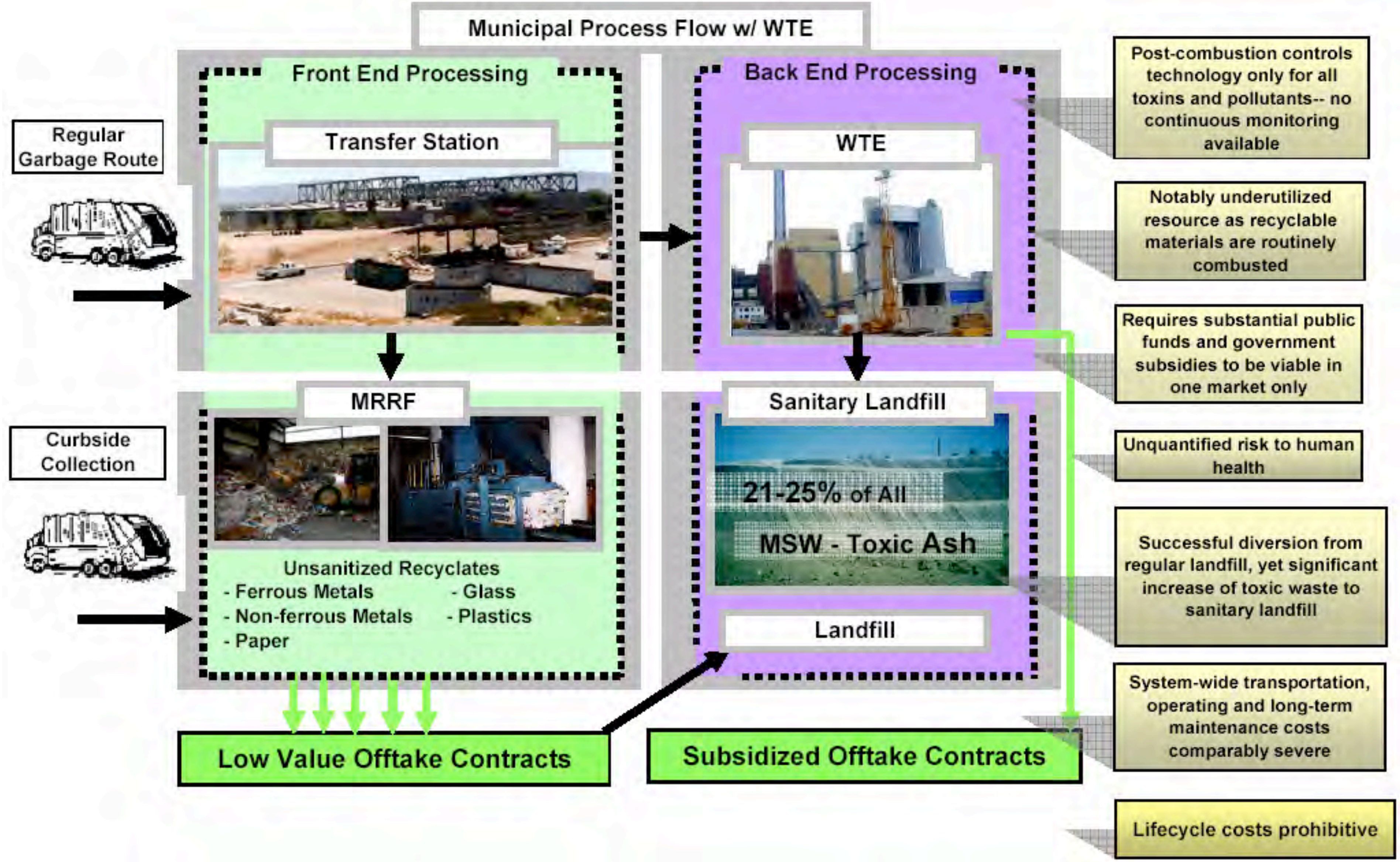
Summary of Findings

	Landfill (control)	WTE Incineration	Plasma Gasification	Recycling Programs	RCR STAG w/ Bio-refinery
Raw Score: Critical Success Factors	**26**	**55**	**47**	**56**	**94**
Weighted Score: max. 30.9 (100%)	**5.8 (19%)**	**9 (29%)**	**8.5 (28%)**	**12.5 (41%)**	**25.9 (85%)**

Waste Options Comparison Matrix Evaluation Criterion	Landfill (control)	WTE Incineration	Plasma Gassification	Recycling Programs	RCR STAG w/ Bio-refinery
Critical success Factors					
Minimal operational life of 20 years.	2	5	5	2	5
Be capable of processing the existing annual waste tonnage, but with potential to expand as necessary.	2	5	5	5	9
Be capable of diverting MSW to reduce waste to landfill by 50%.	2	9	9	5	9
Provide flexibility for potential future changes in the waste stream and collection systems.	2	5	5	5	9
Be available on a commercial scale.	2	9	2	5	2
Have a demonstrable performance record.	2	9	5	5	5
Be capable of operating in North America.	2	5	5	5	5
Be compliant with current US EPA RCRA regulations for the treatment hazardous and non-hazardous solid waste	2	5	5	5	9
Extract recyclable materials to a standard acceptable for reprocessing.	2	5	5	2	9
Produce resalable materials to offset operating costs.	2	2	2	5	9
Require minimum modification to change primary output.	2	-3	-3	5	5
Minimize environmental emissions and where necessary treat to required levels.	2	2	5	5	9
Capitalization requirements are funded without additional public funding (Increased Taxes, Subsidies etc).	2	-3	-3	2	9
Scoring Key					
Significantly better = 9					
Better = 5					
Same = 2					
Worse = -3					
Significantly Worse = - 5					
Critical Success Category Score	26	55	47	56	94
Non-Critical Success Factors					
Should primary controls technology fail, public and environment at increased risk from contamination	0	-1	-1	0	3
Meet carbon reduction provisions of Kyoto Protocol	0	-1	-1	1	3
Adapt to changing regulatory guidance without additional costs or public funding.	0	-1	-1	-1	3
Meets long term US EPA recycling and reuse criterion for 2020.	0	-1	-1	0	3
Managed by public-private partnership and accountable to public trust.	0	0	0	0	3
Adhere to zero waste initiative and improves city's reputation.	0	1	3	3	3
Protect public funds.	0	-1	-1	0	3
Enhance City's international exposure.	0	0	1	3	3
Positively addresses all Environmental Justice issues.	0	0	0	1	3
Does not require source segregation.	0	0	0	-1	3
Does not require additional collection schemes or routes.	0	1	1	-1	3
Tipping fees are locked in for 10 years or longer.	0	1	1	0	3
Provide long term, guaranteed profit sharing.	0	1	1	0	3
Scoring Key					
Significantly better = 3					
Better = 1					
Same = 0					
Worse = -1					
Non-Critical Success Category Score	0	-1	2	5	39

ReCycled Refuse International Ltd




Municipal Process Flow w/ WTE
Front End Processing
Back End Processing
Regular Garbage Route
Curbside Collection
Transfer Station
WTE
MRRF
Sanitary Landfill
21-25% of All
MSW - Toxic Ash
Landfill
Unsanitized Recyclates
- Ferrous Metals
- Glass
- Non-ferrous Metals
- Plastics
- Paper
Low Value Offtake Contracts
Subsidized Offtake Contracts
Post-combustion controls technology only for all toxins and pollutants-- no continuous monitoring available
Notably underutilized resource as recyclable materials are routinely combusted
Requires substantial public funds and government subsidies to be viable in one market only
Unquantified risk to human health
Successful diversion from regular landfill, yet significant increase of toxic waste to sanitary landfill
System-wide transportation, operating and long-term maintenance costs comparably severe
Lifecycle costs prohibitive

2.0 GENERAL RESPONDENT INFORMATION

I. NAME AND CONTACT INFORMATION

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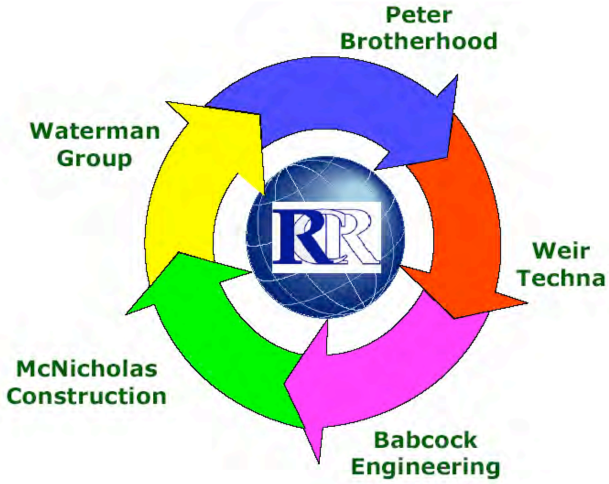
II. BUSINESS AND OPERATIONS

ReCycled Refuse International AG is a limited liability company founded in 1988 in Switzerland and has a small office in Jersey, the UK Channel Islands. The Company has relocated its administrative headquarters to Switzerland to take advantage of synergies with strategic partners located in Germany, Austria as well as the UK and Africa and to meet its international commitments in China, Russia and the Gulf States. RCR Group, led by ReCycled Refuse International AG, includes several divisions and wholly owned subsidiaries operating in various industries including energy, engineering and technology development.

ReCycled Refuse International AG and RCR Group Structure

RCR is an environmental engineering Company specializing in providing customers with complete recycling and reuse solutions. Simply put, the Company extracts more value from the waste stream than anyone else, the program reduces the net operating costs of Jersey's entire waste management program by applying revenue from recyclates sales to offsetting these costs, the valuable waste stream is therefore attractive to private investment and institutional capital sources, and the program exceeds the most stringent world standards for environmental compliance. RCR holds international patents for waste and energy technologies and enjoys unique expertise in finding sustainable solutions to today's multi-dimensional waste problems. With the help of its strategic partners that make up RCR Group, the Company offers a global delivery capability with a distinctly local feel.

The Company's Chairman, Dr. Anthony Haden-Taylor, is a member of the Chartered Institute of Waste Management, the Society of Chartered Environmentalists, the British Energy Association. Dr. Haden-Taylor holds a PhD in Strategic Financial Management.



RCR is lead contractor in the RCR Global Delivery Consortium for the design, engineering, construction and finance of sustainable waste solutions featuring RCR STAG technology. (Company profiles and financials are presented in *Appendix 9.2*.)

The RCR Sustainable Energy Team form part of the consortium supply of equipment and expertise to operate within accepted recycling targets and are content to endorse the RCR STAG system as the Best Value Option, the Best Available Technology and the Best Practical Environmental Option. It is proposed that they will continue to monitor compliance with new legislation in particular that pertaining to climate control.

The RCR Sustainable Energy Team have been involved in the forward thinking design of waste treatment facilities for many years and in the implementation of the full range of waste treatment and handling facilities. Their experience enables them to ensure that projects are feasible and affordable with realistic timescales for implementation.

The RCR Engineering Team is made up of a team of world class engineering companies who focus on the engineering and management of multi-disciplinary projects in environmental and energy systems, operational services, repair and maintenance and construction. They are a group of major engineering companies undertaking the management of projects, the design, construction and servicing of energy and process plant facilities on all five continents. This ensures that RCR STAG technology can be delivered on a turnkey basis anywhere in the world.

The RCR Construction Services Team in-house resources in engineering and construction deliver turnkey M&E installations in the industrial, water and domestic environments. The team delivers $500 million in added value construction services across the whole of the utility sector with safety as the number one priority. With over 50 years experience the RCR Construction Services Team is the complete service provider delivering total supply chain solutions, managed services, and turn key construction projects.

III. PROJECT HISTORY

- Design and construction of five waste transfer stations in Hong Kong handling six million tons of MSW;
- Construction of the leachate system in Went New Territories landfill in China (one of the largest landfills in the world);
- Non-combustion based toxic liquid treatment plant in Newport, South Wales handling 250,000 tons of toxic liquids such as arsenic, cyanide, acidic, organic and inorganic sludge, dirty acids, PCBs etc;
- The conversion of sewage sludge via exothermic reactivity to produce blended and bespoke fertilizers;
- Water recycling, filtration, clarification and reuse through acclaimed and prize winning proprietary technology that uses dolomite and polymeric precipitants to clarify and precipitate sewage, dye-house water, laundry water for reuse, industrial process water for reuse
- The design, build, commission and operate since 2000 to 2005 an RCR STAG autoclave system at Tythegston, South Wales as pilot plant to process and sanitize MSW to maximize recovery of recyclates and convert fibrous biomass to produce renewable electricity – capacity 80,000 tons per annum. Facility is currently being retrofitted to triple capacity and undergoing ownership change;
- The award of contract to supply the City of Glasgow with RCR STAG plant with a roll-out program for five more similar sized plants.
- The award of contract to supply the Cities of Jinan and Shenyang in Peoples Republic of China first phase for each 500,000 tons p.a.
- The approval and subsequent award of contract to handle 1,280,000 tons of MSW arising in the capital city of Abu Dhabi, UAE.
- The approval and subsequent award of contract to handle 1,400,000 tons of MSW arising in the city of Dubai, UAE.
- The approval and subsequent award of contract to handle 2,190,000 tons of MSW arising in the capital city of Al Riyadh, Saudi Arabia
- The approval and subsequent award of contract to handle 2,400,000 tons of MSW arising in the city of Jeddah, Saudi Arabia
- The award and subsequent signing of agreement to handle all MSW arising in the Federal Republic of Chuvashia (Formerly within USSR)
- The award and subsequent signing of a contract to handle 1,400,000 tons for the City of St. Petersburg, Russia.
- The award and subsequent signing of a contract to handle 500,000 tons for the city of Kaliningrad, Russia

IV. PERFORMANCE DESIGN EXPERIENCE

As lead contractor of RCR Group, the Company enjoys invaluable experience in the design and implementation of comprehensive waste management and energy solutions. Babcock Engineering (Africa) and Waterman Sustainable Energy (Waterman Group, UK), core partners of RCR Group, bring many years of design, build, operate experience (DBO, DBOO, DBOOT etc) from many projects throughout five continents (see *Appendix 9.2*). Now, with the globally accepted Public-Private Partnership (PPP) model, exclusive RCR STAG Recursive Recycling MSW treatment technology and backing of the international financial community, the Group is unique in its ability to offer 100% project financing for sustainable waste and recycling projects to sovereign waste stream providers such as Jersey. The municipality is therefore only obliged to supply the garbage, not the financing. RCR Group proposes this model as the preferred option for Jersey.

RCR has no operational history in Jersey and there are currently no RCR STAG Recursive Recycling MSW treatment plants in operation in Russia.

V. EXPERIENCE WITH RCR STAG TECHNOLOGY

Autoclaves and thermal hydrolysis have been around for more than 120 years and are used extensively in many industries including metallurgy, medicine, food processing, aerospace and dairy to name a few. It is one of the most proven and mature industrial technologies in use today. RCR STAG Recursive Recycling MSW treatment process has developed a novel application for the sanitization and reduction of waste based upon invention in controls and the ability to generate, store, and deliver steam in a regulated manner.

In 1996 the original autoclave for waste treatment was based in a suburb of Sheffield at a waste transfer station operated by local waste contractors, and adjacent to Sheffield's own incinerator for the purpose of additional trials and for commercial exploitation in dealing with MSW. The project successfully met performance and reliability criteria and plans were developed for a full - scale commercial operation. The pilot facility was decommissioned in 2000.

In 1999, Thermsave Engineering, a former subsidiary of RCR, designed a full size commercial plant that was installed in 2000 at Tythegston, South Wales. The pictures included in *section (o)* are of this commercial installation. The plant was fully audited to obtain the Environment Agency site license showing full compliance with European Directives and legislation. The Tythegston plant was decommissioned in 2005 under plans to retrofit and increase capacity from 80,000 metric tons per annum to more than 300,000 tons.

The Tythegston, South Wales plant was managed as a DBOT project. An exhaustive brief on the design, implementation and commissioning is provided as an addendum to this proposal (see *Appendix 9.1*). The technology has more than proven its efficacy in homogenizing MSW and in successfully removing pollutants through the condensate stream while optimizing the recyclates for resale. Recently, automated sorting and typing equipment for the sanitized plastics have been added to the post-treatment operational design greatly enhancing operations for follow on installations.

The system has been granted Best Available Technology (BAT), Best Practical Environmental Option (BPOE) and Best Public Value Comparator (BPVC) in Europe—a status we fully expect to obtain in the United States.

Concurrent to the final granting of international patents in 2006, the Company is now actively marketing the RCR STAG technology with the PPP model, and continues to improve support systems and optimization of recyclates for sale on the market. We are confident that the RCR STAG system will soon become the de-facto standard for the treatment of municipal solid waste in the world.

VI. ANNUAL REPORTS FOR PREVIOUS YEARS

ReCycled Refuse International AG reported net tangible assets of €154 million in 2006. The consolidated balance sheet statements presented in *Appendix 9.2* do not include the activities of the site-specific Special Purpose Vehicles (SPVs) totaling €5.246 billion as these assets are held on the books of the respective companies.

Consolidated balance sheet information and individual profiles for The **RCR Global Delivery Consortium** are presented in *Appendix 9.2*. The Consortium reported combined turnover in excess of €3 billion with net tangible assets of €600 million.

The complete design, installation, commissioning and functionality of the RCR STAG plant is guaranteed by **Euler Hermes PLC (UK)** who report a risk profile in excess of €516 billion. Performance Guarantee (Draft), profile of activities and financial statement information is presented in *Appendix 9.3*.

3.0 DESCRIPTION OF WTE TECHNOLOGY

Overview:

RCR proposes the building and commissioning of one (1) RCR STAG plant in Jersey. The plant will process and recycle up to 40,829 tonnes of municipal solid waste and some 75,000 tonnes of C&D and other wastes initially, however can be expanded via their modular design to 75,000 tonnes per annum. Toxins and pollutants are safely removed with the help of 20 tonnes of high-temperature steam over the 65-minute cycle while the waste is volume-reduced by 85% during the treatment phase. Little if any items are targeted for landfill as the plants are designed specifically to sanitize the entire MSW waste stream preparing all recyclates for optimum resale, recover and reuse in the market. Approximately 50% of the MSW waste stream identified by Jersey is made up of recyclates such as ferrous metals, non-ferrous metals, multiple grades of plastics and glass. The remainder of the sanitized waste stream is processed into a homogenized cellulosic fibre with a variety of beneficial uses. RCR proposes to use this fibre as the sanitized feedstock for electricity generation to be located within the same process facility.

Of the 75,000 tonnes of C&D waste identified in Jersey's waste profile, RCR proposes a consolidated approach that optimizes their recycle value in the market. RCR will be responsible for the entire process from treatment and processing, to optimization and realization in the market. Of the **waste wood**, it will be shredded, processed and used as a feedstock for the electricity generation. **Concrete, clean inerts** and **glass cullet** can be crushed and densified, then further combined with densified cement to create a range of 40 viable concrete based products including self-leveling flooring, injection grout, cement compounds and the like. Densified concrete products have been tested, certified and approved in the EU and demonstrate a five-fold increase in strength over traditional concrete. Fragments of **brick, stone, concrete fragments** and **pottery shards** typically found as representing around 4% of the average MSW stream, were traditionally disposed of to landfill. These materials can now be crushed and densified, and thus effectively "disposed" of to market at substantially positive values. Recursive Recycling technologies provide a sustainable and economically viable solution for this difficult 10% of the waste stream that would otherwise be landfilled.

RCR proposes to provide for the entire inward investment necessary to build and operate the factory, manufacturing plants and recycling stations. There will be no public funds necessary for the implementation of this project, and Jersey will receive a AAA performance bond covering the project in its entirety including design, building, commissioning and functionality of the undertakings. RCR will require 12-15 months for building and commissioning. Necessary permits are summarized in *section 5.2*.

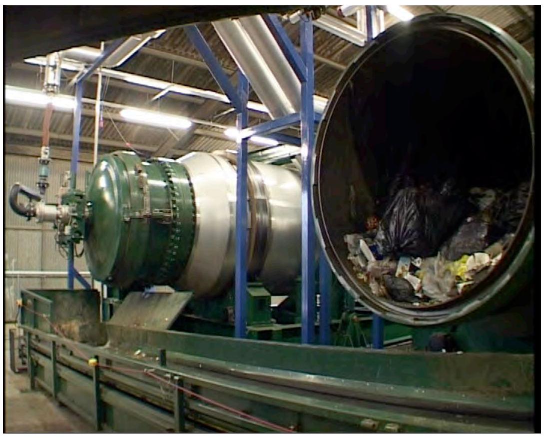
RCR proposes a Public-Private Partnership with Jersey whereby the State is primarily responsible for contractually undertaking to supply the MSW and paying the Gate Fee and the Company is responsible for bringing the full investment, technology, expertise and marketing acumen. The Company will operate the project at an arm's length basis from Jersey thereby relieving Jersey of any liability incurred.

Jersey will be entitled to a 50% profit share from the net profits of the project (after deduction of 10% in respect of the IRR for the risk equity provided by RCR Group which is paid to them). For the security of its investment, the Company expects to sign a long term Contract (25 years) with built-in performance guarantees for diversion from landfill and/or other criteria as agreed upon between the two parties.

This project is completely predicated upon realizing maximum value in the market from Jersey 's waste stream utilizing the Best Available Technology and Best Practical Environmental Option in creating a truly zero waste program. Jersey is not being asked to risk any public funds whatsoever as all investment and performance risk is borne by the Company and its financial backers. The international banking community and environmental community have endorsed both the technology and business model/structure.

(a) GENERAL DESCRIPTION

The RCR Group have developed a process – in respect of which a patent application is pending and in some jurisdictions already granted and issued - that uses steam to thermally treat unsorted municipal, light industrial, commercial, hospital and agricultural wastes and sewage screenings to produce a cellulose-based homogenous fibre that is the organic fraction of the MSW that is defined as a biomass, from which recycled ferrous and non-ferrous metals, plastics, glass and batteries can be mechanically extracted. The process is referred to as thermal hydrolysis.



In this process, the entire unsorted waste stream is sanitized for 60-65 minutes with high-temperature steam (325ºF) and under pressure within a process cycle of 90 minutes. With no source segregation necessary, collection costs to Jersey are greatly reduced.

The process size-reduces the raw waste by up to 85% of its original volume.

Some 80 cubic yards of MSW are introduced to the autoclave and after the 90-minute cycle the volume (not weight) has been reduced to 15 cubic yards with moisture content of around 35% to 40%. This is in the form of fibrous material which has converted the organic fraction of the MSW to a biomass.

Aluminum and steel containers, plastic or glass bottles can be commingled and once treated in the autoclave will be clean and sanitized and free of food or beverage deposits, lacquers and labels and in a Grade 'A' state. Contamination is the primary factor for low market prices for recyclates. The RCR STAG Recursive Recycling MSW treatment system sanitizes the entire waste stream without destroying the valuable recyclates thus greatly increasing the revenue potential for recycling. It is the enhanced revenue stream that makes private sources of financing available for this project and underscores the basic principals for investing in such a project.

Toxins and pollutants are extracted automatically from the waste stream by the process condensate for subsequent removal by filtration.

Upon exiting the autoclave, recyclates are automatically sorted and graded including ferrous metals, non-ferrous metals, plastics and glass. These recyclates are further optimized depending upon market demands; metals are shredded stored for onward shipment to metal smelters, plastics are sorted by type, color and grade, and glass is ground to small sizes for resale and reuse.

The remainder is a clean, uncontaminated biomass made up of organic fractions. This cellulosic fibre has multiple uses, however it is envisioned that the most optimum long-term use is as a feedstock for the production steam from a steam-raising boiler that will be used in the processing of MSW and the surplus to drive a steam turbine.

C&D waste. Jersey lists several C&D items as part of its waste stream. Some, such as concrete are listed as currently not being recycled very successfully. Others, such as asphalt shingles and drywall, which make up a significant portion of the annual waste, are listed as N/A.

Recycled Concrete. Should it be necessary to enhance current State efforts, building waste will be crushed, densified and recycled for mixing with densified cement to make a range of 40 concrete products including self-leveling floors, cement grouts and blocks, concrete building elements or panels. A more detailed and target-specific proposal will be available after coordination with City departments responsible for building and construction. The specialist hardening agent, utilizing micronized cement and filler is often added to regular ready-mixed cement. It accelerates the hardening / setting process. It produces a surface that is five times harder than regular concrete and has the tensile strength of steel. It can be used in bridges, sea walls (especially where application has to be completed and hardened in between tidal movements) , water works, wastewater treatment plants, foundations where the water table is quite high. The waterproofing render is as hard as steel and can protect foundation work and is impervious to moisture.

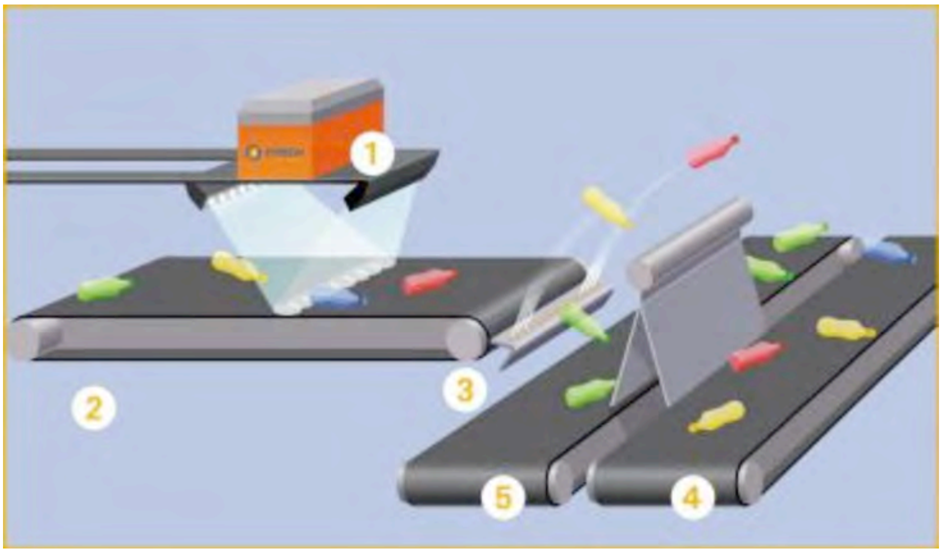
Substrate to tanks, swimming pools, reservoirs, can all be treated with the render. The external surfaces of buildings and structures can be rendered and this material can be produced in a suite of 30 different colors. Tile cements, tile grouts, hydraulic grouts, hydraulic repair material for bridges and stressed structures. Stress cracks, breaks, fissures, spawling, and water-blown concrete can be repaired in situ and the resulting repair is stronger that the original structure and is guaranteed.

RCR believe that once presented to builder's yards, merchants, DIY centers and the general house building and construction trade the market will be very large. The accent on recycled material, the avoidance of C&D landfills, the sustainable reuse of materials otherwise landfilled will avoid the extraction of virgin rock or materials that will then be crushed and used.

The recycling message and the very competitive pricing will ensure that the product can and will be sold. It can also be exported. It can be produced in bulk one ton bags or in DIY retail or trade packs at premium prices. The process is fully licensed and permitted throughout Europe and has passed all structural tests and neutron tests and will be easily permitted in the USA that have lower building regulation requirements than prevail in Europe.

There is an accompanying disk with this presentation and we ask that you take time to look at the PowerPoint presentation of the processes and its produces and applications. There are some of the signature properties that have been restored, treated and benefited from these products.

Recycled Plastics.



1. Scanner, 2. conveyor belt with input material, 3. air jets, 4. second transport system with ejected material and 5. residual fraction

All plastics, irrespective of their prior use or application are processed and are size reduced and sanitized within the autoclave. They emerge from the autoclave and are separated from the treated mass through the use of a rotary screen or trommel. The plastics are diverted onto a separate moving table over which is situated a number of robotic laser operated plastics segregators.

The sensors are pre-programmed with the density, specific gravity and color characteristics of each type of plastics. There are in essence seven different types of plastics. These are:

1. PET (polyethylene terephthalate) e.g. 2 liter soft drinks bottle;

2. HDPE (high density polyethylene) e.g. containers for liquids e.g. milk, household products;

3. V (vinyl) or PVCs -- Polyvinyl chloride requires special attention due to its high content of dangerous chemicals, e.g. phthalates (to make toys soft and flexible), lead, cadmium and organotin compounds. The high chlorine content poses a risk of dioxin when incinerated, particularly in uncontrolled burning. In certain conditions phthalates can leak out of the plastic, e.g. when chewed by children;

4. LDPE (low density polyethylene) e.g. plastic bags;

5. PP (polypropylene) e.g. ropes, bottle crates and car battery boxes;

6. PS (polystyrene) e.g. packing, insulation, disposable cups, fast food boxes;

7. Other (including multi-layer) PET, HDPE, LDPE and PVC. All these form the bulk of the plastic packaging recovered.

The sophisticated sorting technology makes it possible to fully automate separation of recyclable materials. The input stream is analyzed by a fast scanning sensor installed over a conveyor belt. It rapidly identifies materials, shapes, textures and colors as well as the object position. The sorter blows the defined sorting fraction onto a second transport system while the residual fraction is brought to a third belt for further sorting or disposal. The system has superior performance and exploits all the possibilities of economic separation of recyclable materials.

Performance

- Capacity ranging from one to ten tons per hour
- Hit-rates around 90%, but in some cases even higher. This is the percentage of the targeted material in the input stream that is ejected
- Purity rates typically between 90 and 93%, but could reach 98% in some applications. This is cleanliness of the ejected material (in percentage)

Flexibility

- The units can sort waste streams from different sources, regions and seasons
- The sorting criteria can be easily adjusted with just one click

- Software upgrades can be downloaded via a modem

Reliability

- Negligible mechanical wear
- Stringent tests and approval procedures before starting-up at a customer location
- Reliable components successfully used in many applications
- Effective remote diagnosis and maintenance through a modem
- Service engineers worldwide to secure down-time to a minimum
- Preventive service agreements available

This very sophisticated sorting equipment (for which there are 740 global and US reference sites) identify the plastics, and using air powered paddles flip the different plastics into the respective silo. The separated material within a silo is periodically passed through the same machine down line. This re-analyzes the material to remove other missed or foreign matter. It then separates by color. It is designed to specifically sort polymers or mixed plastics by material properties. With its NIR *(near infrared)* sensor, it efficiently detects the characteristic infrared wavelength of light reflected by illuminated objects. Thus you obtain a fingerprint of light – unique for every different type of material.

Recycled Plastics. Post sanitization within the autoclave the plastics are segregated into the seven different poly types of plastics. These are then shredded and rewashed and passed through a proprietary plastics recovery plant where, using thermal energy, the plastics are melted to a viscous state and passed through bubbling liquids to produce FSDA approved food grade plastic granules on site as part of the recovery process. These granules can be bagged in 50kg bags for off-site sales to third party plastics converters or used immediately and converted into other plastic products in an adjacent building. This ensures that the value within the plastics stream is retained within the plant and also reduces handling and freight costs of baled plastics to third party converters. Revenue from this activity offsets the operating cost of the whole STAG treatment plant.

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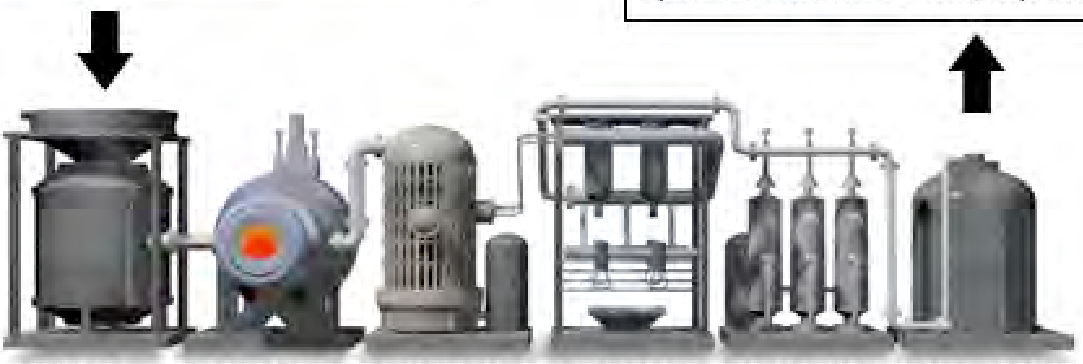
Plastics to Diesel: The thermal de-polymerization process can convert a wide range of waste materials into oil and other useful by-products, in proportions that vary according to the specific type of feedstock run through the works.

Using proprietary de-polymerization process the small fractions of waste plastics not capable of being sorted (

such as heavily printed thin film bags and containers) can be sanitized and converted back to premium grade diesel fuel leaving minimal residue and a conversion rate of just over 86% for every tonne of plastics feedstock to produce 1 tonne of diesel fuel.

100 POUNDS OF:
PLASTIC BOTTLES: Clear (polyethylene terephthalate) and translucent (high-density polyethylene)
MUNICIPAL LIQUID WASTE: 75 percent sewage sludge, 25 percent grease-trap refuse
TIRES: All kinds, including standard rubber and steel-belted radials
HEAVY OIL: Refinery residues, heavy crudes, and tar sands
MEDICAL WASTE: Transfusion bags, needles and razor blades, and wet human waste

PLASTIC BOTTLES: 70 pounds oil, 16 pounds gas, 6 pounds carbon solids, 8 pounds water
MUNICIPAL LIQUID WASTE: 26 pounds oil, 9 pounds gas, 8 pounds carbon and mineral solids, 57 pounds water
TIRES: 44 pounds oil, 10 pounds gas, 42 pounds carbon and metal solids, 4 pounds water
HEAVY OIL: 74 pounds oil, 17 pounds gas, 9 pounds carbon solids
MEDICAL WASTE: 65 pounds oil, 10 pounds gas, 5 pounds carbon and metal solids, 20 pounds water



Compliance with all US, UK and EU air-quality standards is built into the RCR STAG plant design. The RCR STAG (**S**team **T**reatment **A**nd **G**eneration) Process fully addresses and adheres to the initiatives of the UN Earth Summit in Rio de Janeiro 1992 to achieve a sustainable future. The technology has been strongly supported by the British Government's UK Trade & Industry (UKTI) and is compliant to the Carbon Emissions Reduction Program in accordance with the Kyoto Protocol, as well as all US EPA directives for the treatment of municipal solid waste.

(b) TYPES OF WASTE ACCEPTABLE TO PLANT

The plant accepts **all forms of unsorted municipal solid waste**.

The plant can accept **medical and clinical waste**. 325ºF (160ºC) steam at 65 minutes is more than triple the requirements for instrument sterility in hospitals. Toxic organic compounds are rendered harmless and there are no emissions from the process.

Grass clippings, agricultural waste and food waste are accepted at the plant and because it is pure cellulose material, post treatment and reduction become feedstock for ethanol or as fibre.

Sewage screenings are accepted at the plant. Other processed sewage may be acceptable subject to be further assessment by RCR. This material represents a difficult disposal issue and has to either be incinerated or disposed to controlled landfill. Principally pure cellulose they can be introduced to the autoclave and are easily converted to fibre, indistinguishable from the fibre derived from the organic fraction existing with in the MSW stream.

Batteries are either removed by visual inspection or extracted after processing. Car batteries are shipped to appropriate recycling centers, smaller disposable batteries are extracted for further disposal to a controlled landfill.

On average, there are 28 tons of batteries in every 100,000 tons of MSW that equates to around 100 tons of batteries produced annually by the disposable batteries and the Company is happy to consider this option based upon consultation with Jersey and a more in-depth analysis of supply. Disposable battery recycling tends to be cost-negative and would affect the net waste treatment and disposal costs to Jersey since there are misconceived public perceptions that the quality, output or longevity of such products is in some way inferior to new products.

C&D waste processing and recycle stations have been discussed in an earlier section.

Oversized items Large items that cannot be placed into your garbage barrel including appliances, furniture, mattresses, lamps, bikes, chairs, tables, swing sets (disassembled), plastic pools, barbecue grills carpets and the like are removed in front end processing. A tulip grab is located on the tipping floor and all waste is visually inspected before being sent to the autoclaves. Appliances are fragmentized safely removing all CFC gasses, polystyrene, plastics and rubber while the metal is shredded and all recovered elements are combined with similar recovered materials for off-site sale and reuse.

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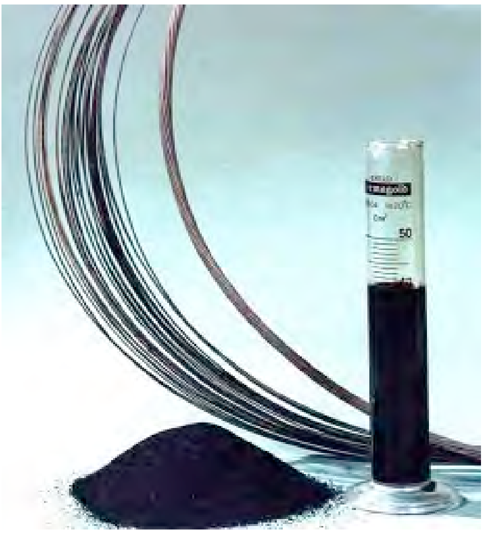


Deconstruction of end of use Tires – using RCR's proprietary sophisticated high temperature multi microwave technology the huge volume of waste tires can be quickly deconstructed and reverted to their original components, typically producing :

Diesel fuel	25%
Quality Steel	20%
Synthesis Gas	15%
Carbon Black.	40%

n context around 100 tires equate to one ton. A rule of thumb to use is that on average there is one end of use tire per capita per annum. 1 car tire produces 1 gallon of No. 4 fuel Oil; it also produces 50 cubic feet of synthesis gas @ 1,100 BTU. So 1,000 tires would produce 50,000 cubic feet of gas x 1,100 BTU = 55,000,000 BTU or 55 decatherms @ £10 per decatherm = US$ 550 per hour of operation.

So in reality, if the States were to mandate RCR to deconstruct the end of life tires for the island with around 10,000 tires, they would produce around 476,962 litres of fuel oil which at around £0.75 a litre would be £357,722 instead of which it represents an expensive and tedious disposal issue. Also 500,000 cubic feet of gas – or 5,775 decatherms equivalent to another £40,000.

The same tire produces 2 pounds of clean steel and 7 ½ pounds of carbon black – both saleable for added value. The actual energy requirement of for the deconstruction of tires and plastics is 280kW/hr per ton – so minimal in terms of the parasitic load and the energy generating capability of the RCR plant as a whole.

The proposed facility will be capable of handling up to 1,000 tires an hour and will also be used to convert waste non-recyclable plastics to No 4 fuel oil as well.

The technology is already licensed in North America and Australia and is capable of being delivered to the Island. It involves an in-feed conveyor, a sophisticated, high powered shredding machine in which the tires are fed between two sets of cutters, which cut up the tires into small fragments - less than 10cms (4 inches) squares that renders them into a continuous supply feedstock. These squares enter a high powered specialized microwave that operates under a soft vacuum to that spontaneous combustion does not occur when the tire shreds are heated by the microwave. The tire chips are bombarded with target specific microwave frequency in the form of molecular vibrations, which causes the cracking of the hydrocarbon chain. The reactor chamber is tumbled to allow complete penetration by the microwaves.

Waste Oil Re-refining - Oil does not wear out it simply gets dirty - Re-refining and reusing waste lubricants, motor and automotive oils is environmentally friendly, compliant and economical due to increasing costs of both oil and disposal.

It is the intention of this proposal that specialist vehicle will be provided for the segregated collection of used oil from restaurants, garages and the like, so that it can be processed and recovered for reuse.

Vacuum distillation will ensure producers can consistently re-refine used lubricant oils to their original condition with minimal degradation. Since the distillation occurs under high vacuum in our short path evaporator, the biodiesel product is exposed to 500-575 °F temperatures for just seconds avoiding product degradation. Typically, up to 85% of the waste oil feed is distilled overhead and recovered. The remaining 15% is black, heavy slurry consisting of oil additives originally blended with the oil as well as metallic and carbon impurities. This slurry quickly solidifies at ambient temperature, and can subsequently be sold as a by-product. The distilled oil must undergo post treatment to remove mercaptans and free radicals before it can be blended with an additive package. The oil is now ready for reuse or sale.

A complete modular system will be installed at every RCR STAG Recursive Recycling Plant and RCR will work with local collection companies to collect waste and used oils from garages and specialist outlets. The plant is designed to handle a whole range of other materials that arise in the ordinary course of any day. This proven technology will be included in each plant and given its modular design can be expanded if volumes of materials requiring this type of treatment are evident in the municipal waste stream or from local businesses or industries

Hazardous Household Wastes (HHW)

The same process plant can compliantly process all household hazardous waste (HHW) materials. HHW can be processed and converted to various beneficial products. The technology employed by RCR are mature and certified. It is intended that RCR would need to more critically assess the characteristics of Jersey's HHW stream. Capital costs Company and included in a comprehensive business plan.

Hazardous Industrial Wastes

The system is designed to carry out deodorization, distillation, reboiling, concentration, solvent recovery and stripping. The same equipment is ideally suited to process hard-to-handle, heat sensitive and viscous materials such as:

Fats and Oil: cotton seed oil, dimmer and trimer acids, edible oils, fatty acids, glycerides, glycerin, mineral oils, paraffin, rosin acids, tall oil, fatty amides and palm oil.

Coal tar products: dyestuffs, fire retardants, rubber coatings, paint wash solvents, lube oils, pitch petroleum wax, pyrethreum, PTA, catalyst concentration (2-EH)

Chemicals: acid chlorides, amino-acid, bisphenol, caprolactam, chlorinated hydrocarbons, cumene hydrogen peroxide, acetic acid, dimethyl sulfoxide, dioctyl phthalate, dyes, ethanolamines,, glycols, insecticides, petroleum sulfonates, plasticizers, urea, solvents, acrylates, isocyanates, herbicides, EPDM silocone oils,

Polymers and Resins: epoxy resins, latex, sythentic rubber, polystyrene, phenolic resins, adhesives, resin co-polymers, silicone polymers, urethane pre-polymers and styrene monomer.

Food processing industry: it will process tomato paste, fruit nectars, chicken stock, fish proteins, vanillin, corn syrup, whey, fruit purees, lecithin, marigold extract and milk solids. From the pharmaceutical industry amino acids, alkaloids, ascorbic acid, biochemicals, penicillin, Vitamin e, Vitamin C and steroid derivates.

The entire system is highly instrumented. The majority of process parameters are controlled by a PLC system. The control system can be accessed through a DMACS operator interface on a PC located in the control room or through local operator interface screens located in the process area. All operating conditions are data logged and trends can be viewed on any of the operator stations.

E-Waste and E-scrap recycling:

RCR will incorporate within the system a sorting device designed to identify colors, shapes and metals from bulk solids. The metal sensor is combined with a color camera. The high spatial resolution in conjunction with precise color measurement enables sorting complex material streams of used electrical devices and the recovery of nonferrous metals with a high purity. It has been perfected to detect the following:

- Printed circuit boards
- Metal recovery
- Plastics recovery
- Stainless steel
- Removal of scorched granulates / contaminants

Non-ferrous metal processing

- Recovery of highly valuable metals
- Copper recovery
- Brass recovery
- Aluminum cleaning
- Removal of glass

Cable recycling

- Separation of copper, aluminum and lead by color contaminants removal

Automobile Defragmentization and Recycling:

Based on high-resolution x-ray transmission image processing, the sorting machine uses dry-mechanic techniques to separate materials and waste streams based on specific atomic density. This innovation opens new frontiers in efficient processing of recovered valuable materials.

Applications:

Automobile recycling

- Removal of heavy metals from aluminum
- Removal of PVC, bromine and contaminants from SLF for RDF production

CRT glass

- Separation of panel *(containing barium)* and funnel glass *(containing lead oxide)*

Commercial and industrial waste *(C & I)* / household waste

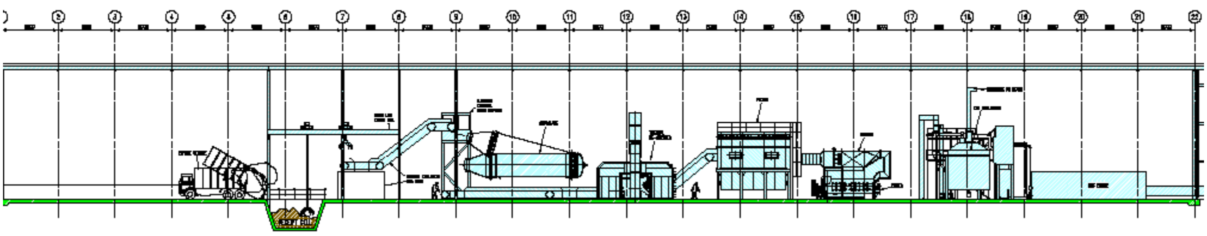
- Organic/anorganic separation

RDF production / waste to energy

- Removal of PVC and bromine from fuel products
- Production of high-caloric fuel
- Removal of PVC, bromine and contaminants from RDF

Additional fields

- Metal recycling, slag processing, mixed waste etc.
- Removal of PCB and halogenated parts from plastics, meeting WEEE specifications



SECTION 1-1

(c) PROCESS FLOW & MAJOR COMPONENTS LIST

The different stages of the treatment process of the MSW can be categorized fairly simply and have been outlined below:

- The Boiler House
- Water Conversion Plant (Reverse Osmosis) and Water Softening and Storage
- Receiving the Unsorted Waste
- Treating the Waste within the Pressure Vessels
- Sorting the Treated Waste
- Dewatering the Sorted Waste
- Treating the Condensate for Reuse
- Segregating Treated Material for Reuse
- Treatment and Conversion of Waste Tires
- Steam Generation
- Secondary Aggregate Recovery
- Plastics Compounding and Conversion Plant
- HHW and Industrial Wastes Process Plant
- Deconstruction of End of Use Tires plant
- Ethanol bio-refinery

A Complete RCR STAG Recursive Recycling MSW treatment facility with a capacity of 150,000 MT/year plant with auxiliary equipment e.g. front loaders, forklift trucks, weighbridge and standby generator. The Equipment Schedule for the planned facilities is as follows:

	1 Plant
o 20 tonne capacity thermal vessels	2
o Vent Vessels	2
o Condensate Pump Vessels	2
o Boilers	1
o Monitoring	1
o Electrical/Mechanical Equipment	1
o Steam Accumulators	1
o Water Treatment	1
o Condensing systems	1
o Vapuor extraction systems	1
o Building extract systems	2
o Pre and post separation	1
o Dryers	1
o Combustors	1
o Waste Heat Boilers	1
o Steam Turbines	1

- Plastic compounding equipment 1
- Plastic-to-Diesel depolymerisation plant 1
- HHW and Industrial Wastes Process Plant 1
- Bio-ethanol refinery 1
- End of use tire deconstruction plant 1

Start up fuel source: The boilers are multi-fuel capable. RCR plans to utilize internally-produced biomass-based fibre for boiler fuel source. The cellulosic fibre can be converted to synthesis gas (syngas) on site and utilized as an alternative fuel source within the plant. Green electricity for the entire parasitic load is generated internally and surplus will be marketed on the local grid.

(d) CHARACTERIZATION AND QUANTITIES OF MARKETABLE PRODUCTS

RCR STAG Recursive Recycling Plant — **Jersey**

Currency	GB£s
Annual Plant Capacity	100,000 tonnes
Annual Waste Volume	87,500 tonnes (A W V)

Waste Profile

1.	Plastic	10.20%	8,925 tonnes
2.	Aluminium	1.80%	1,575 tonnes
3.	Glass	6.16%	5,390 tonnes
4.	Non Ferrous Metals	0.70%	613 tonnes
5.	Ferrous Metals	3.00%	2,625 tonnes
6.	Organic (wet)	38.67%	33,836 tonnes
7.	Paper	15.80%	13,825 tonnes
8.	Cardboard	6.20%	5,425 tonnes
9.	Wood	2.60%	2,275 tonnes
10.	Textiles	2.10%	1,838 tonnes
11.	WEE (White Goods)	0.90%	788 tonnes
12.	Clean Inert Fines	2.30%	2,013 tonnes
13.	Hazardous Chemicals	0.30%	263 tonnes
14.	Nappies	2.00%	1,750 tonnes
15.	Furniture/Household	0.26%	228 tonnes
16.	Cat Litter	0.01%	9 tonnes
17.	Carpet/ Underlay	0.70%	613 tonnes
18.	Green Waste	4.52%	3,955 tonnes
19.	Sewage Screenings	0.58%	508 tonnes
20.	Rubber	1.20%	1,050 tonnes
	Totals	**100.00%**	**87,500 tonnes**
	Moisture	40%	

The following charts depict the volume of waste processed, recyclates tonnage, anticipated low-scenario market price and revenues generated per item. totaling around £**50 per tonne** in recycling revenue for every tonne. Recursive Recycling technologies typically extract between seven and ten separate revenue streams from municipal solid waste

RCR STAG Recursive Recycling Plant **Jersey**

Annual Plant Capacity	100,000 tonnes
Annual Waste Volume	87,500 tonnes

Income-Cost Table

Income Stream	Units Produced	Cost per unit GB£s	Per year GB£s
Gate Fee	87,500 tonnes	32	2,800,000
Collection Fee	87,500 tonnes	38	3,325,000
Plastic	8,925 tonnes	900	8,032,500
Glass	5,390 tonnes	10	53,900
Non Ferrous Metals	613 tonnes	800	490,000
Ferrous Metals	2,625 tonnes	120	315,000
Aluminium	1,575 tonnes	900	1,417,500
Densified Concrete Products	168000	--	14,448,000
Hazardous Waste Revenues	393	150	58,950
Tyre Deconstruction Revenues	1,050 tonnes	--	794,511
Ethanol Biorefinery Revenues	0	--	8,640,000
Green Electricity	3 MW	60 per MWh	1,576,800
CO2 Allowance Credits	87,625 tonnes CO2	2	184,013
Total Income GB£s			42,136,174
Total Cost GB£s			29,751,299
Net Income GB£s			**12,384,875**

* Through Recursive Recycling technologies, practically the entire municipal waste stream becomes recyclable. Sanitized, sorted and uncontaminated plastics command significantly higher market prices than MRRF-derived plastics, 30%-200% higher. All MSW plastics are recyclable.

*** Cellulosic fibre** making up 50% of the MSW stream, is processed and utilized internally as feedstock for the production of green electricity. The cellulosic characteristics of this residue are similar to those of Douglas Fir, (European soft wood) and when combusted has a calorific value of 11Mj/kg to produce thermal energy with very low emissions for the generation of net exportable renewable electricity. There is a 3% ash residue (as against 20% bottom ash and 3% fly ash from ordinary incineration) which is similar to wood ash, that is ideally suited for inclusion into the production densified concrete products within the facility. This ash is non-toxic and free from 98% of all heavy metals since all sources of heavy metals (batteries etc) have been removed from the fibre and the residue is free from such contaminants.

***Green electricity** is used internally for to meet the parasitic load for each plant. In the event of extended downward market trends, the fibre can be additionally used for the production of ethanol and other products.

***Emission certificates** are based upon current local market price for 87,625 tonnes of carbon allowance credits known as Certified Emission

Reductions (CERs) or Emission Reduction Units (ERUs) worth £184,013. The Kyoto Protocol created flexible mechanisms known as Clean Development Mechanism (CDM) and Joint Implementation (JI), which allow industrialized countries to finance emission reduction projects in exchange for carbon allowance "credits" called CERs or ERUs. Greenhouse Gas (GHG) mitigation is now an important factor involving the use of biomass to generate electricity, cogeneration, to replace fossil fuel for use in boilers or in the avoidance of dumping biomass in landfills. These credits can help project participants, in this instance the County, to meet their GHG reduction targets and represent a means of acquiring additional revenue and making a significant and visible contribution to Climate Change

*Steam and hot water will also be available for sale to the local economy. Expected revenues have not been included at this time.

(e) CHARACTERIZATION OF PROCESS RESIDUALS

Contaminated wood residue. While most of the of new construction debris will be relatively clean and fundamentally recyclable, some C&D wood waste may contain lead based paint, asbestos residue or preservatives which may contain cyanide and other harmful materials. They exist in very small numbers of parts per millions and are not considered to be harmful to members of the public at these recorded levels.

Other C&D residuals may include contaminated drywall from demolition, dust or other particulates.

RCR STAG steam concentrate filtration removes an average of one liter of concentrated **liquid toxic waste** for every 20 tons of MSW processed—waste that other technologies fail to address in pre-treatment.

(f) MINIMUM AND MAXIMUM FACILITY AND UNIT SIZE

The facility size for RCR STAG is standardized for all municipal waste treatment applications allowing for expansion and plug-in plug-out replacement as necessary. Technically speaking, the minimum plant size would process 100,000 metric tons of waste per annum consisting of one pair of 20-tonne autoclaves working at full capacity. In real terms, economies of scale and current market conditions dictate that a minimum of 150,000 metric tonnes would be required for a viable stand-alone project. In cases of WTE incinerator retrofit with available building space, a project volume of 250,000 metric tonnes may be viable.

Maximum facility size is primarily dictated by infrastructure realities including traffic movement, ingress and egress, available utilities, transport costs (proximity principle) and the like. As a rule of thumb, the maximum facility size using configuration is approximately 1,200,000 tonnes per annum for MSW.

All RCR STAG autoclaves are designed for 20-tonne capacity and operate in pairs complete with conveyor systems, steam generation and distribution equipment and other support systems. This standardization allows for ease of maintenance and replacement. There is 100% redundancy built into each plant and during the ten-year operation of two different facilities there have been no recorded incidents of catastrophic failure. This is largely due to the strictly adhered and implemented predictive, preventative and corrective maintenance regime. All moving parts are independently monitored with GPS activated monitoring sensors that continuously monitor and report hours of usage, built in obsolescence, timed replacement, timed refurbishment using a system that was developed to maintain British warships in the Royal Navy. This ensures that no single item of equipment can be ignored or overlooked and interfacing with inventory control software ensures re-ordering, restocking and replacement to enable "plug in –plug out" ability for instant replacement and avoidance of any downtime. Facility and size layouts are described in detail in *section (j).*

(g) MASS AND ENERGY BALANCE INFORMATION

Mass and energy balance information for one (1) RCR STAG Waste Treatment Plants processing 87,500 tonnes of MSW per annum and producing 2MW/hr of green electricity to meet the parasitic load needs for the process plant, with other green waste and fibre used for the conversion to ethanol.

(h) CONSUMPTIVE WATER NEEDS

The typical maximum use of water is 30 tons per RCR STAG plant per day (plant only). Average water demand is just 6.3m3 per hour but most of that is recycled. Net loss is around 30 tons a day. All rainwater, water content of MSW, rinse and wash down water is recovered, clarified, filtered, purified and reused. There is no discharge to sewer or ground of any process liquids. There is a small loss of water through evaporation and the minor inefficiencies of vapor capture hoods that are situated over the discharge areas from the autoclaves and fibre separation.

The majority of the 40% moisture content in the incoming MSW stream (approximately 8 tons per every 20 tons of MSW) is collected, clarified and reused in the RCR STAG waste treatment plant.

(i) ANNUAL AVAILABILITY DATA

Operating Criteria: The plant(s) is designed to operate 24 hours per day and seven days per week and for 52 weeks per annum, equivalent to 8,736 hours, however we normally use 8,000 hrs/yr to include scheduled preventative maintenance downtime periods. For the 133,500 tonnes disposed of within Jersey this is 58 metric tonnes per hour or 400 metric tonnes per day. Add the agricultural, horticultural and branchage wastes that will also be processed within the plant the volume will increase to 150,000 tonnes annually.

All RCR STAG plants are subject to a rigorous preventative maintenance schedule, and all major technical components and support systems are standardized allowing "plug in – plug out" replacement. Over the nine-year operational history of RCR STAG in both pilot plant and full-scale commercial operations, there were no reported catastrophic failures resulting in the shut down of the facilities.

The autoclaves have very few moving parts but routine preventive, predictive and corrective maintenance is undertaken daily by a team of trained engineers and engineering assistants. The combustion grate needs to be raked regularly to ensure that there is no build up of partially combusted material and that the ash is safely removed for recycling. As such, there is almost nothing that can go wrong with the vessel and whatever might occur is usually capable of being rectified within an hour or two.

The boilers need to be serviced regularly in order to perform properly. Clean water must be used for conversion to steam otherwise the boiler tubes will deteriorate and will need replacement within a few years of manufacture. Hence the water filtration and purification system is rigorously maintained for quality output of water for steam conversion.

A program of "built-in obsolescence" is useful to prevent any plant failure. Such items as electric motors that drive conveyors and drum dryers are routinely removed on agreed timed intervals on a "plug in- plug out" basis and these are returned to the manufacturers where they are serviced and rebuilt and tested. Fresh warranties are obtained on these consumables which are then maintained in the plant stores so that preventative maintenance can be achieved daily.

The strength and thickness of the metals used in the fabrication of the process plant is such that the estimated life cycle for this plant is around 35 years. Bearings on conveyor rollers will wear and need replacement; rubber conveyor belting will wear and need replacement over time. Shredder, fragmentizer and flaking blades will routinely need replacement or servicing or at least sharpening to ensure effective operation.

(j) FACILITY AND SIZE LAYOUT

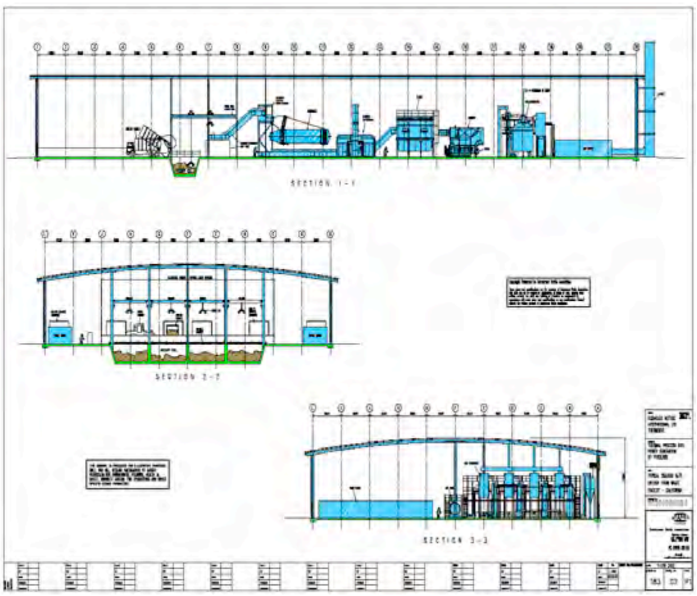
It is intended to lease or purchase from Jersey a piece of land with a site area of between 3 and 5 acres, where adequate telecommunications; electricity supply and grid connection, water and transportation are also available. The actual site size is dictated by the surrounding infrastructure for vehicular access and egress to the site that may require providing more turning circles on site. Clearly proximity to canal or waterways and/or rail spurs or connections will enhance plant throughput and positively impact in reducing the number of road vehicle movements.

It is entirely feasible that the existing transfer stations and/or MRRFs may be suitable for adaptation and retrofitting thus addressing issues of zoning, use and other associated issues of traffic generation – this would represent a very fast track approach to implementation because these transfer station sites already have most if not all necessary site licenses to operate an RCR STAG plant. The fibre would need to be shipped off site to another location for conversion to ethanol at a centrally located bio-refinery which itself would require 20 acres of land.

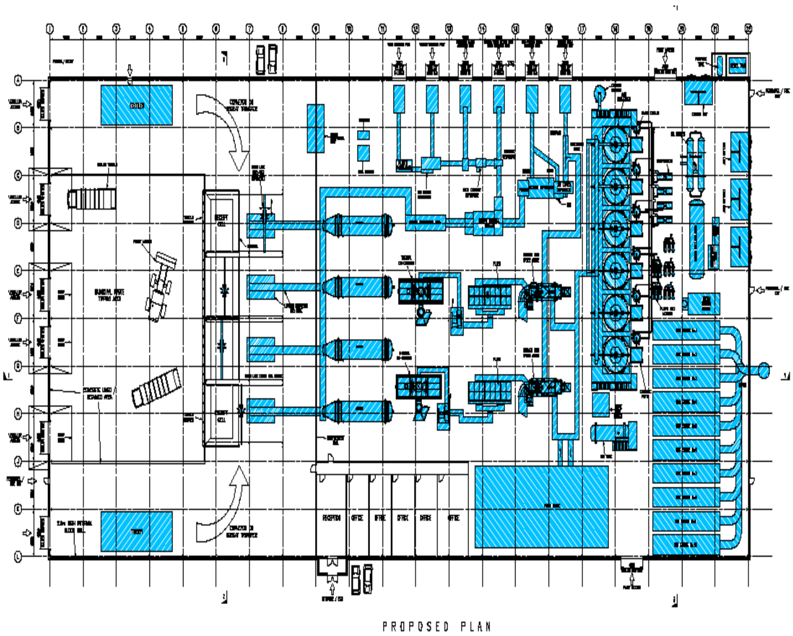
It is proposed that ground and first floor office accommodation will be sited within the building. The offices will have observation windows along the length internally and also externally. They will be air-conditioned and will have a ground floor reception area with stair and lift access to first floor. This will contain administrative offices, meeting rooms, laboratories for monitoring air and water quality, staff restrooms, canteens and a viewing area to oversee the process. It should be noted that to the left of the drawing below is a public drop off center for public delivery that would include yard waste and other items. This ensures that no members of public access the highly mechanized plant infringing Health and Safety Regulations.

For the RCR STAG site, it is necessary to erect a large insulated steel frame building to be constructed adjacent to the relevant landfill site, on an available transfer station site, MRRF site, or retrofitted within existing buildings meeting necessary criteria. The building size will be 6,000 square meters, 100 meters in length, 30 meters in width and 10 meters high to the eaves. The cladding material will be solar-reflective steel bonded to high-grade insulation material and laminated steel internal finish. Steel roller shutter doors will be situated strategically along the building perimeter for access to waste collection vehicles and for empty vehicles to collect recovered and sterilized fill material and other recyclables. This size of the building is for a plant processing in excess of 1,000,000 tons per annum (allows for future expansion as necessary).

A sophisticated odor abatement and air handling system combined with dust precipitation and filtration equipment will be installed to ensure that no odor from the process is released into the surrounding environment and to prevent any dust or particulates which might become airborne during the various processes. Vehicle exhaust gasses from front loaders and collection vehicles during discharging activities are electronically precipitated to ensure compliance with Health & Safety at Work air quality requirements. The building will be fitted with negative air curtains at all door openings to ensure the suppression of airborne insects and any odor migration from the MSW unloading activities. Proprietary insect control equipment will be fitted throughout the building.



An integrated waste handling facility will be constructed to include waste reception cells and overhead cranes for the removal of oversize items. This will also include connections to road or rail for the smooth movement of waste. Storage areas for waste with be fitted with conveyors to feed the waste into the process.

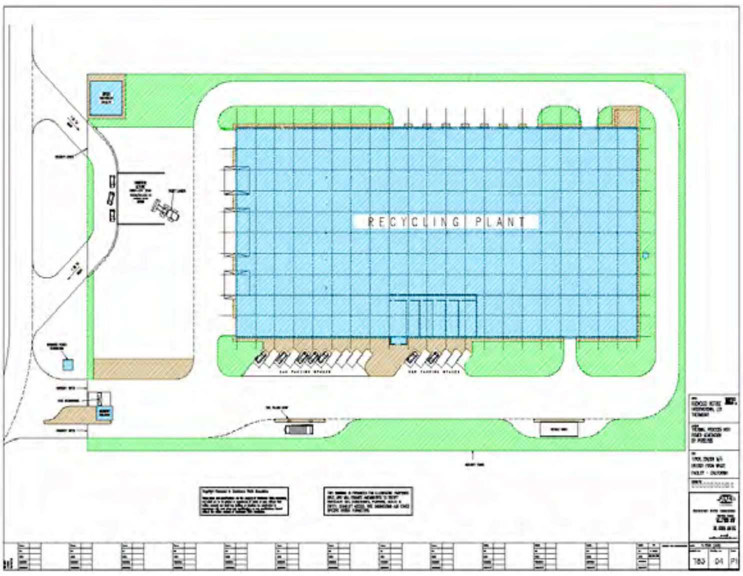


Using surplus steam a cooling system will be fitted which will reduce the temperature of the building. It will also be used for the cooling of the office accommodation, which forms an integral part of the building. In-line ventilation fans will be operated to circulate the air within the building thus creating a cooling breeze.

(k) SITE SIZE REQUIREMENTS

1. RCR STAG Waste Treatment Plant: One (1) plant including the C&D recovery plant would require a minimum of 5 acres.

2. RCR Bio-refinery 5 acres



(l) SITING, CONSTRUCTION AND/OR OPERATIONS REQUIREMENTS AND RESTRICTIONS

Permits for light industrial manufacturing are normally sufficient for all plant operations. Special consideration may be necessary if located near residential areas to accommodate delivery schedules (24/7 operations) and traffic movements. Our experience indicates that traffic movements will be greatly reduced as compared to industrial plants with similar operational and delivery regimes; still, the issue would need to be addressed. An ethanol Bio-refinery would require additional permits, however the Company does not anticipate problems in this area (see *section 5.2* for additional information on permits).

(m) EXPECTED OR PREFERRED LOCATIONS

It is preferred that the RCR STAG waste treatment facilities be located as close as possible to the trash generation thereby reducing transport costs. Preferred locations are within Jersey at the landfill sites already identified in Section 1 of this report. Retrofitting existing buildings would necessarily expedite the construction phase. Locating also at redundant power stations, incinerator plants or automobile manufacturing plants with good off-site infrastructure would also speed permitting and start-up.

ReCycled Refuse International Ltd

(n) STAFFING CHARACTERISTICS PER PLANT

Staff and Personnel Breakdown and Estimated Costs

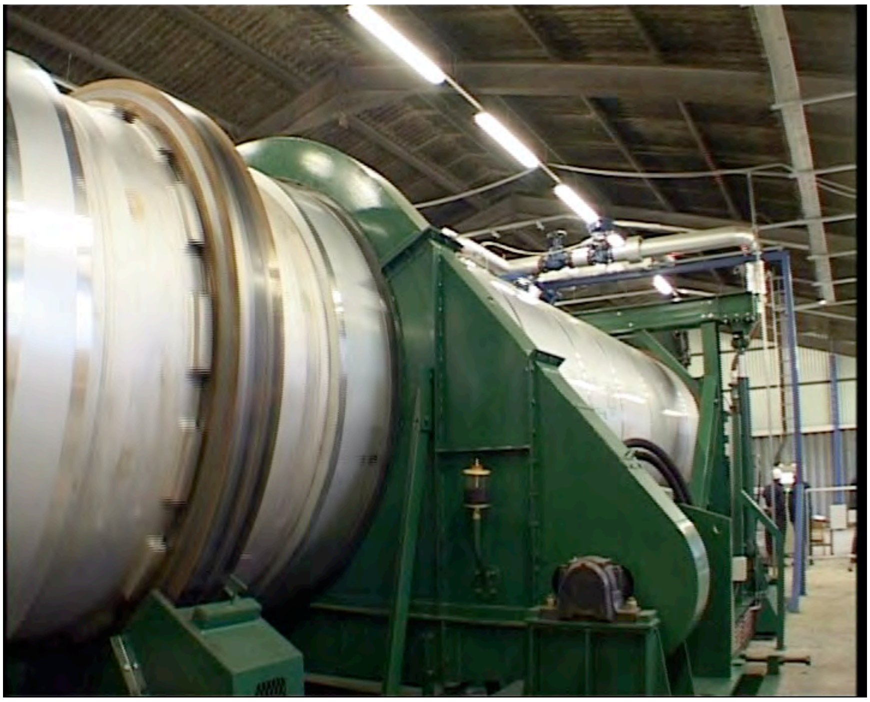
RCR STAG Recursive Recycling Plant **Jersey**

Annual Plant Capacity 100,000 tonnes
Annual Waste Volume 87,500 tonnes

Area	Staff Description	No of Personnel	Shifts	Total per shift	Salary p.a. by position	Benefits and Taxes	Salary p.a. incl. benefits and taxes	Total Personnel Costs p.a.
						25%		
Plant					GB£s	GB£s	GB£s	GB£s
Maintenance	Security Guard	1	1	1	22,000	5,500	27,500	27,500
	Gardener	1	1	1	17,000	4,250	21,250	21,250
Load and off load	Weighbridge Operators	3	3	1	24,000	6,000	30,000	90,000
	Fork Lift Operators	3	3	1	28,000	7,000	35,000	105,000
	Front Loader Drivers	3	3	1	28,000	7,000	35,000	105,000
Factory	Plant Manager	1	1	1	55,000	13,750	68,750	68,750
	Supervisors	3	3	1	36,000	9,000	45,000	135,000
	Electricians	3	3	1	35,000	8,750	43,750	131,250
	Mechanics	3	3	1	35,000	8,750	43,750	131,250
	Plumbers	3	3	1	35,000	8,750	43,750	131,250
	Boiler Operators	3	3	1	35,000	8,750	43,750	131,250
	Lab Technicians	1	1	1	32,000	8,000	40,000	40,000
	Labourers	3	3	1	18,000	4,500	22,500	67,500
	Material sorters	3	3	1	18,000	4,500	22,500	67,500
Storage, Warehouse	Store Keepers	1	3	0.33	24,000	6,000	30,000	30,000
House Keeping	Cleaners	0	1	0	12,000	3,000	15,000	0
	Canteen	3	3	1	12,000	3,000	15,000	45,000
Densified Concrete Plant	Total Personnel	2					cost included in dedicated OpEx!	
Hazardous Waste Plant	Total Personnel	0					cost included in dedicated OpEx!	
Tyre Deconstruction Plant	Total Personnel	0					cost included in dedicated OpEx!	
Ethanol Biorefinery	Total Personnel	0					cost included in dedicated OpEx!	
Collection Fleet	Total Personnel	86					cost included in dedicated OpEx!	
Total Plant Staff		**126**						**1,327,500**
Administration					GB£s	GB£s	GB£s	GB£s
	General Manager	0	1	0	55,000	13,750	68,750	0
	Secretary	0	1	0	22,000	5,500	27,500	0
	Receptionist	1	1	1	20,000	5,000	25,000	25,000
	Risk & Safety Mgr	1	1	1	35,000	8,750	43,750	43,750
	IT Systems Manager	1	1	1	40,000	10,000	50,000	50,000
	HR/IR Manager	0	1	0	40,000	10,000	50,000	0
	Payroll clerk	0	1	0	22,000	5,500	27,500	0
	Book keeper	1	1	1	23,500	5,875	29,375	29,375
	Chairman	1	1	1	120,000	30,000	150,000	150,000
	Managing Director	1	1	1	150,000	37,500	187,500	187,500
	Personal Assistant	1	1	1	35,000	8,750	43,750	43,750
	Finance Director	1	1	1	75,000	18,750	93,750	93,750
	Assistant	0	1	0	30,000	7,500	37,500	0
	Sales Director	1	1	1	75,000	18,750	93,750	93,750
	Assistant	0	1	0	35,000	8,750	43,750	0
	Operations Director	0	1	0	75,000	18,750	93,750	0
	Assistant	0	1	0	30,000	7,500	37,500	0
	Non-Executive Director	4	1	4	40,000	10,000	50,000	200,000
	Company Secretary	1	1	1	45,000	11,250	56,250	56,250
Total Administration Staff		**14**						**973,125**
	Total Staff	**140**			**Total Projected Annual Personnel Costs**			**2,300,625**

(o) PHOTOGRAPHS OF EXISTING FACILITIES

Autoclave with black-bag garbage ready for treatment (S. Wales Plant, 2001)



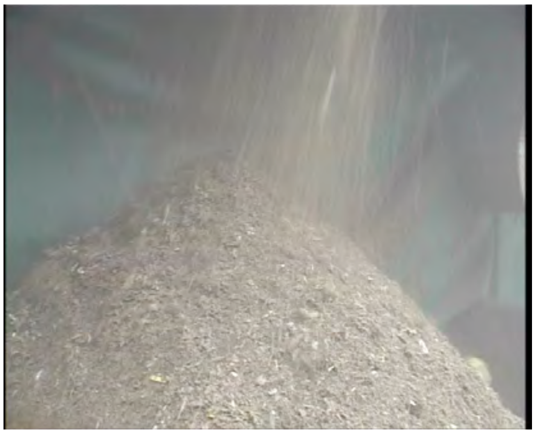
Autoclave rotating (S. Wales Plant)

Autoclave opening after pre-treatment process

Steam Raising Boiler

Trommel Separation

Sanitized Non-ferrous metals

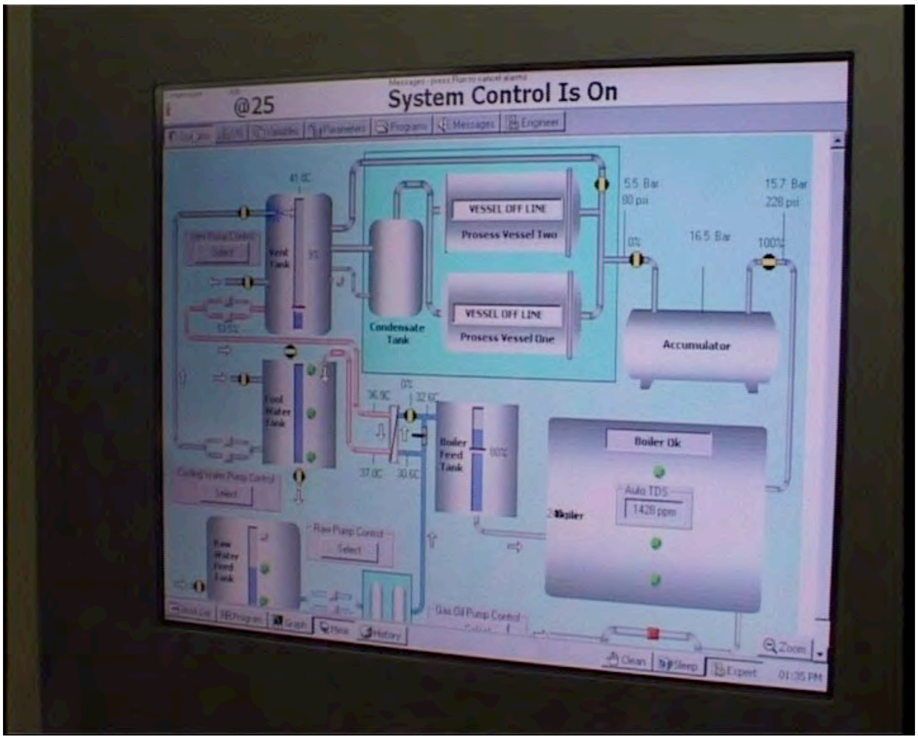


Sanitized fibre moisture 35%

Sanitized cellulosic fibre floc

Steam Accumulation / Storage vessel

Steam condensate vessels



Control panel interface

Slurry, industrial water & sludge clarifier

Gas Converter

External view

4.0 STAGE OF TECHNOLOGY DEVELOPMENT

4.1 PILOT PLANT IN SHEFFIELD ENGLAND 1996-2000

In 1996 the original autoclave for waste treatment was based in a suburb of Sheffield at a waste transfer station operated by local waste contractors, and adjacent to Sheffield's own incinerator for the purpose of additional trials and for commercial exploitation in dealing with MSW. The project successfully met performance and reliability criteria and plans were developed for a full-scale commercial operation.

4.2 FULL SIZE COMMERCIAL OPERATIONS 2000-2005

In 1999, Thermsave Engineering, a subsidiary of RCR, designed a full size commercial plant that was installed in 2000 at Tythegston, South Wales. The pictures included previously in *section (o)* are of this commercial installation. The plant was fully audited to obtain the Environment Agency site license showing full compliance with European Directives and legislation. The Tythegston plant was decommissioned in 2005 under plans to retrofit and increase capacity from 80,000 metric tons per annum to more than 300,000 tons. As of the presentation date of this proposal, these plans are still ongoing and under the coordination of the facility's ownership group. It is projected that the increase in capacity will be completed in Spring 2008.

4.3 TECHNICAL RISK

Autoclaves and thermal hydrolysis have been around for more than 120 years and are used extensively in many industries including metallurgy, medicine, food processing, aerospace and dairy to name a few. It is one of the most proven and mature industrial technologies in use today. RCR STAG has developed a novel application for the sanitization and reduction of waste based upon invention in controls and the ability to generate, store, and deliver steam in a regulated manner.

The Company has more than nine years of extensive experience in the application of this technology for the sanitization and reduction of waste. The Company reports zero technical failures throughout its entire operational history and a 100% health and safety record with no reported injuries in the entire plant operations. All moving parts including separation systems are enclosed.

RCR has directed its most recent efforts toward maximizing the optimization of sanitized recyclates in the marketplace (see *section (d)*), and creating an appropriate financing structure for the successful implementation of the technology (see *sections 7.1 & 7.3*).

There are currently no known or accepted methods for the continuous monitoring of exhaust gasses from combustion, and most combustion facilities are checked by relevant authorities no more than once a year posing an extended risk to the entire community. Best practices and Best Available Technology should be stringently employed when considering industrial technologies necessarily located in proximity to residential areas.

It is our perception that the non-combustion removal of toxins and pollutants in semi-aggressive and enclosed pre-treatment is vital to mitigating technical risks in any waste management strategy. As no other known waste treatment technology employs the proprietary approach of RCR STAG Recursive Recycling MSW treatment plant, the associated technical risks to Jersey in the event of system failure would be possible unscheduled downtime at the plant; as opposed to potentially serious environmental hazard in the case of controls system failure for combustion facilities.

A safety factor of 100% redundancy is incorporated into the plant design and with a rigorous regime of preventative, corrective and scheduled maintenance and timed replacement of moving parts and components the risk of catastrophic failure of the whole plant is eliminated due to the "stand alone" modular system approach where in the unlikely event of one module failing the other modules (made up of independent control systems, steam raising boilers, two autoclaves and all associated segregation equipment) the other modules will continue to operate normally.

Sufficient electrical power is generated within the plant to provide all parasitic load requirements of the whole plant and to allow for export to the local grid; in the event of a local power failure or outage the plant would continue to operate without grid connection and the controls would automatically shut down excess power generation and would only provide power for the parasitic load.

5.0 ENVIRONMENTAL PERFORMANCE

5.1 AIR QUALITY CONCENTRATION LIMITS IN US AND EU

Air quality concentration limits are broadly similar between Europe, the US and Japan, but for some pollutants there are tighter air quality limits in Europe. This may reflect the fact that the Europe legislation has been updated most recently. However, the European limit values are set for future years and currently allow a margin of tolerance above the values. The EU permits a small margin of excess on these values and targets each year, which reduces the severity of some of the limit values.

The RCR STAG technology meets all applicable air quality standards both in the US as well as the EU without respect to tolerance limits of any kind. The chart below shows audited results for the combustion of RCR STAG cellulosic fibre in comparison to IPPC (Integrated Pollution Prevention and Control) limits:

	RCR EU EPA Audit	IPPC Limit
Particulates <2.5	**3**	**10**
Particulates >1.0	**6**	**10**
Carbon Monoxide	**8**	**50**
Oxides of Nitrogen (Nox)	**183**	**200**
Volatile Organic Compounds V.O.C.s	**6**	**10**
Hydrogen Chloride	**4**	**10**
Hydrogen Fluoride	**0**	**1.00**
Sulphur Dioxide	**41**	**50**
Dioxins & Furans	0.02	0.10
Mercury	**0**	**0.05**
Cadmium	**0**	**0.05**
Heavy Metals	**0.07**	**0.50**

It is important to note the absence of 98-100% of heavy metals, specifically cadmium and mercury (100%), and other pollutants underscoring the effectiveness of the RCR STAG technology in removing toxins and pollutants through the steam condensate in the pre-treatment process. These audited emissions were not subject to additional filtration or post-burn processing of any type.

After one full year of exhaustive due diligence on MSW waste treatment technologies (and the expenditure of £1 million of public money on the due diligence exercise) the Glasgow City Council awarded RCR STAG technology the highest achievable recommendation naming it Best Available Technology (BAT), Best Practical Environmental Option (BPOE) and Best Public Value Comparator over the 35-year life cycle of the proposed plant. It will provide a reliable waste management and treatment system that will promote waste minimization, reuse, recycling, composting and treatment.

In the US, the standards for a particular source category require the maximum degree of emission reduction that the EPA determines to be achievable, which is known as the Maximum Achievable Control Technology (MACT). These standards are authorized by Section 112 of the Clean Air Act and the regulations are published in 40 CFR Parts 61 and 63. RCR STAG technology complies with current US-EPA regulations and indeed exceeds applicable targets identified in the agency's RCRA 2020 White Paper. Independent analysis suggests that RCR STAG technology sets a new standard in controls technology in the US and would be expected to become the country's de-facto standard in this field.

Clearly there are standards to apply within Florida that will need to be observed and attained.

5.2 REQUIRED PERMITS

EPA Solid Waste Permit	Required to enable receipt and handling of solid waste
EPA Permit for Wastewater Discharge	Enables discharge of treated process waste water even though RCR STAG facility recycles all waste water
EPA Permit for Storm Water Discharge	May be covered by nationwide general permit
Island Site Approval	Formal municipal approval is required to enable use of the site(s) for solid waste handling and for the construction of buildings to house process plant
Island Planning Consents	Formal approval for the construction of residential facilities for plant employees as necessary
EPA Air Permit to Construct	Provincial endorsement of EPA permits
EPA "Non-attainment Area New Source Review"	May be required for non-combustion ethanol refinery, however most operations should be covered in general operations permit
EPA Electrical Power Generation and Sale	Required for the generation and sale of electricity to unspecified third parties

Green Electricity for Export. It is currently envisaged that all fibre to be used as alternative fuel for waste heat boilers. Should the Company, in consultation with Island officials, decide that green electricity production is a more preferable option, then air permits will be required as a matter of course. In this case, carbon diversion (and income from carbon diversion certificates) will increase by approximately nine fold.

Plastic-to-Diesel Depolymerization. Permits are relatively new, however it is projected that most operational activity will be covered under standard permitting for Light Industrial Production and the above-mentioned EPA permits. Should additional permits be required, the Company will make all necessary arrangements for full compliance.

Ethanol Refinery. Permits are relatively new, however it is projected that most operational activity will be covered under standard permitting for Light Industrial Production and the above-mentioned EPA permits.

5.3 PROCESS FLEXIBILITY AND ADAPTIBILITY

Flexibility and adaptability are built into the very design of the system reflecting the ethos of the Company and its non-linear approach to sustainable solutions in waste management.

No one can predict for sure the makeup of black bag garbage. Hence, RCR STAG processes the entire MSW waste stream by breaking down components in a controlled, non-destructive and enclosed media. High temperature steam renders toxic organic compounds inert, condensate removal and filtration extracts heavy metals and toxic inorganic compounds, while acids and alkaloids are reduced as solutes rendering them effectively inert.

Markets are historically cyclical and downturns in target markets have proven to be the Achilles heel of many waste-recycling efforts. By focusing on the non-destructive *pre*-treatment and sanitization of waste in front-end processing, the RCR system retains unparalleled flexibility in optimizing recyclates "raw materials" according to changing market demands. It is in fact this flexibility and adaptability that make this business model attractive and desirable to the financial markets.

For example, 50% of the MSW waste stream exits the front-end process as a sanitized, homogenous cellulosic fibre that the Company intends to utilize as feedstock for electricity generation or ethanol production. Should market realities make the production and sale of ethanol unattractive over time, the fibre can be utilized effectively in multiple markets such as:

Fig.1

fig. 2

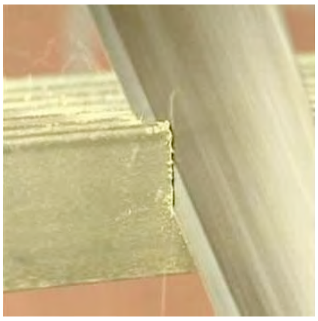


fig.3

- fibre converted on site via gasification to synthesis gas (SynGas, fig.1) for "green" or renewable electricity generation (integration of these systems are built into the design of every RCR STAG plant)
- fibre combusted as a clean fuel (10% the sulphur content of coal) in waste heat boilers to produce steam for off-site electricity generation
- fibre as virgin feedstock for anaerobic digestion (fig.2) creating premium quality compost and methane gas (CH4) for power generation with very low emissions

- fibre mixed plastic residuals to form a wood substitute (fig.3) – decking, fencing, furniture, etc.
- fibre mixed with plastics converted to viable products onsite using parasitic energy to produce conduit piping, tubing, drain or sewer parts, roofing tiles, etc.
- fibre combined with coal dust to make a renewable fuel

Regulations, like markets, change over time becoming generally stricter as public policy reflects a deeper understanding of the balance between human and natural systems. As the RCR STAG technology meets or exceeds current worldwide emissions standards, exceeds all applicable EU and US-EPA MACT regulations, and is the only known waste treatment technology to comply with carbon emission reduction provisions of the Kyoto Protocol, the Company is confident in its ability to conform to future regulatory changes over the 35-year lifecycle of the equipment.

The Carbon Emission Reduction provisions of the Kyoto Protocol call for reductions in carbon emissions in the US of 7% from 1990 levels by 2008-2012. Furthermore, it is generally known and accepted by the scientific community that methane from landfills accounts for at least 14% of the total carbon emissions contributing to global warming in the United States. The robust carbon emissions certificates and displacement figures resulting from the implementation of this technology underscore the environmental and fiscal efficacy of this sustainable solution.

Waste management has at least five types of impacts on climate change, attributable to:

1. Landfill methane emissions,
2. Reduction in industrial energy use and emissions due to recycling and waste reduction,
3. Energy recovery from waste,
4. Carbon sequestration in forests due to decreased demand for virgin paper, and
5. Energy used in long-distance transport of waste.

A recent U.S. EPA study provides estimates of overall per-tonne greenhouse gas reductions due to recycling. Calculations using these estimates suggest that the U.S. could realize substantial greenhouse gas reductions through increased recycling.

Every one tonne of organic MSW landfilled will generate 1 tonne equivalent of CO_2. Therefore for every one tonne of MSW diverted from landfill then 1 tonne of CO_2 is avoided.

In addition, each tonne of HDPE plastics that is recovered and recycled from the MSW is estimated to save 1.5 tonnes equivalent CO_2. Each recycled tonne of LDPE plastics equates to 2.0 tonnes of CO_2, and a tonne of PET is equal to 2.5 tonnes of CO_2. As the RCR STAG Recursive Recycling process recovers all available plastics, these environmental benefits are realized as a matter of course.

It should not be forgotten that in the conversion of bauxite to aluminum the energy needs are 20 times that of conversion of aluminum scrap into virgin aluminum product. The CO_2 savings for this have not been factored into the carbon credit. This would also apply for other non-ferrous metals and ferrous metals that are recovered for recycling from the MSW stream and indeed to all recyclates recovered from the MSW via the RCR STAG process.

Note: Methane conversion (lb/cf): U.S. Dept of Energy (2005) Voluntary Reporting of Greenhouse Gases (1605b) Program: Draft Technical Guidelines, DOE Office of Policy and International Affairs, p105. Conversion factor is 0.04228 lb/cf of Methane (CH_4)); We assume that 60 percent of this amount of generated methane is released to the atmosphere annually.

Carbon Allowance Credits

The Kyoto Protocol created flexible mechanisms known as the Clean Development Mechanism (CDM) and Joint Implementation (JI), which allow industrialized (Annex 1) countries to finance emission reduction projects in developing countries (CDM projects) or other Annex 1 countries (JI), in exchange for carbon allowance 'credits' called Certified Emission Reductions (CERs) or Emission Reduction Units (ERUs). These credits can help project participants to meet their GHG reduction targets. For biomass project developers, these credits represent a means of acquiring additional revenue

In the context of RCR STAG Recursive Recycling there are currently several opportunities to generate carbon finance from a number of different biomass related project types. The following project types have tangible potential to sell carbon credits:

- use of biomass to generate electricity;
- use of biomass for cogeneration;
- use of biomass to replace fossil fuel use in boilers; and
- avoidance of the dumping of biomass in landfills.

There are approved procedures for these kinds of project types, which makes the carbon structuring relatively straightforward.

Benefits of developing a CDM/JI project

- making use of the economic value of a waste stream
- solution for waste disposal
- use of local resources
- creation of additional revenue for biomass supplier
- avoidance of methane emissions
- reduction of uncontrolled burning of the biomass and therefore reduced smoke pollution locally

- The period of political uncertainty over the Kyoto Protocol and its instruments such as the Clean Development Mechanism (CDM) is over, and early risk-takers in the carbon market have gained large financial rewards from investing in emissions reduction projects.

Greenhouse gas mitigation is now in the mainstream, and makes clear business sense, with the CDM becoming a well established international financing mechanism creating billions of dollars in future carbon revenues, and leveraging billions more in investments in renewable energy and other sectors. All administrative measures required to implement this important element of the RCR project will be managed for the municipality by RCR, thus no effort or resources from the municipality are required to capture this benefit

Over the last few decades, there has been growing concern about global warming and climate change caused by greenhouse gases (GHG) - emissions from human activities that involve fossil fuel combustion. In 1992, the United Nations Framework Convention on Climate Change (UNFCCC) adopted the Kyoto Protocol, signed by 84 countries, under which all the major industrialized nations must limit their GHG emissions and bring them back down to 1990 levels.

One approach to mitigating global warming is emissions trading - the trading of permits to emit carbon dioxide and other greenhouse gases, calculated in tons of carbon dioxide equivalent (tCO2e). Emissions trading has emerged over the last two decades as a preferred environmental policy tool. One key advantage to emissions trading is that it gives countries and firms flexibility in meeting their emissions targets, rather than imposing predetermined technologies or standards.

The European Union (EU), under the Kyoto Protocol, has committed to reducing its GHG emissions by 8 percent from 1990 levels between 2008 and 2012. The European Union's Emissions Trading Scheme or EU-ETS was enacted in January 2005 as one of the policy measures to enable the EU to meet its Kyoto targets. EU-ETS is a landmark environmental policy, representing the world's first large-scale GHG trading program, covering approximately 12,000 installations in 25 countries and six major industrial sectors.

The EU-ETS offers an opportunity for critical insights into the design and implementation of a market-based environmental program of significant size and complexity. The EU-ETS grants allowances to companies for their GHG emissions in accordance with their government's environmental objectives. The program permits a company to emit more than its allowance of GHGs as long as it has reached an agreement to buy allowances from other companies that emit less than they are permitted.

Within the EU, the supply of allowances is initially determined by individual member states, which develop National Allocation Plans showing the allowances they plan to allocate over a given period and the methods to be used for granting allowances to various facilities. The total quantity of allowances made available by each member state must correspond to the target assigned to it under the Kyoto Protocol.

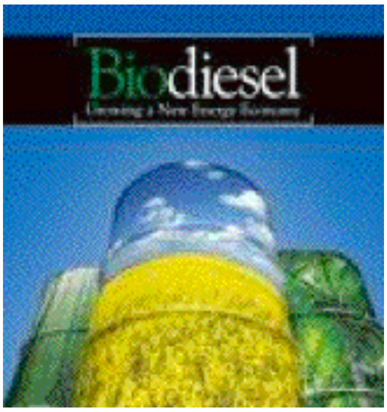
The member state must therefore ensure that the allowances it grants will enable it to reach its target. In 2005, the EU member states issued allowances for 2.2 billion tons of CO_2. These amounts make the European allowance the leading CO_2 unit of value in the world, with a potential market of more than 50 billion Euros. Considering that the market is young and has encountered delays in getting up to speed, this trading volume is noteworthy and encouraging. The rise in market prices for allowances reflects a growing recognition of the effect of carbon constraints on industries and of the European Commission's authority to enforce these limits. It is the ability of public authorities to enforce compliance with emissions reductions that creates scarcity of allowances on the nascent carbon market and determines their value.

Despite the challenges and some flaws in the EU-ETS and regardless of developments in the European exchanges over the next few years, Europe is developing a real financial industry for carbon allowances that will ultimately have its own specialized professions and institutions.

Cellulosic Biomass as a Major Source of Energy

Biomass is the largest form of renewable energy, with a greater contribution than hydropower, wind or solar power. Resources are constantly being created either through growth of crops and forests, or through the waste generated from organic sources.

Biomass is a major source of energy, supplying 11% of the world's energy requirement and it is used at different levels of technology. It can be used "directly", as in household fires or wood burning cookers, or "indirectly" after conversion into another form of energy, such as biodiesel, gas or biopower. Indirect use is the focus of much technological development.



Using biomass does not add to global warming. Plants use and store carbon dioxide (CO_2) as they grow. This is then released when the plant material is burned. As they grow, other plants then use the CO_2 that has been released. As plant life stores carbon it is a form of "carbon sequestration". Carbon is converted from carbon dioxide in the atmosphere and stored in carbon "sinks" or forests planted for the purpose. So using biomass closes this cycle of storing carbon dioxide. Prominent among these is co-firing of biomass with fossil fuels in power generation, to reduce carbon emissions. This already receiving a large boost in the EU following the LCPD (Large Combustion Plant Directive).

The cellulosic fibre produced by the RCR STAG Recursive Recycling MSW treatment system is officially classified within the European Union as a biomass. It is both renewable and biodegradable and thus can be used in the generation of renewable energy, either electricity or ethanol. The United States produces a recorded 260 million tons of MSW although unofficial estimates put this figure at more like 400 million tons.

For every two tons of MSW RCR can produce one ton of cellulosic fibre which in turn, using enzymatic hydrolysis can produces up to 43 gallons on ethanol. A more worthy source of feedstock and it removes the need for land-hungry landfill expansion, reduces greenhouse gasses from reduced methane (landfill gas) generation due to a diversion rate of up to 98% of all waste. If all of the waste in the United States was converted to fibre and then to ethanol it would produce more than 15 billion gallons of green energy fuel.

6.0 PROJECT ECONOMICS

Basic waste profile is based upon City information

Additional breakdown based upon accepted published results of Jersey MSW waste profile.

6.1 JERSEY WASTE PROFILE

RCR STAG Recursive Recycling Plant Jersey

Currency	GB£s	
Annual Plant Capacity	100,000 tonnes	
Annual Waste Volume	87,500 tonnes	(A W V)

Waste Profile

1.	Plastic	10.20%	8,925 tonnes
2.	Aluminium	1.80%	1,575 tonnes
3.	Glass	6.16%	5,390 tonnes
4.	Non Ferrous Metals	0.70%	613 tonnes
5.	Ferrous Metals	3.00%	2,625 tonnes
6.	Organic (wet)	38.67%	33,836 tonnes
7.	Paper	15.80%	13,825 tonnes
8.	Cardboard	6.20%	5,425 tonnes
9.	Wood	2.60%	2,275 tonnes
10.	Textiles	2.10%	1,838 tonnes
11.	WEE (White Goods)	0.90%	788 tonnes
12.	Clean Inert Fines	2.30%	2,013 tonnes
13.	Hazardous Chemicals	0.30%	263 tonnes
14.	Nappies	2.00%	1,750 tonnes
15.	Furniture/Household	0.26%	228 tonnes
16.	Cat Litter	0.01%	9 tonnes
17.	Carpet/ Underlay	0.70%	613 tonnes
18.	Green Waste	4.52%	3,955 tonnes
19.	Sewage Screenings	0.58%	508 tonnes
20.	Rubber	1.20%	1,050 tonnes
	Totals	**100.00%**	**87,500 tonnes**
	Moisture	40%	

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6.2 CAPITAL & PROJECT COSTS

Capital & Project Cost

RCR STAG Recursive Recycling Plant **Jersey**

Annual Plant Capacity **100,000 tonnes**
Total Annual Waste Volume **87,500 tonnes**

Plant and Machinery

			GB£s
1.	Freehold Land		100,000
2.	Infrastructure Costs		1,300,000
3.	Building		7,000,000
4.	Plastics Conversion		3,985,000
5.	Processing Plant		12,835,000
6.	Power Generation		4,000,000
7.	Densified Concrete Facility Total CapEx		9,800,000
8.	Hazardous Waste Plant Total CapEx		1,620,000
9.	Tyre Deconstruction Plant Total CapEx		5,130,000
10.	Ethanol Biorefinery Plant Total CapEx		14,180,000
11.	Miscellaneous		500,000
	Total Plant & Machinery	GB£s	**60,540,000**

Service Equipment

			GB£s
1.	Cars		220,000
2.	Pickups		120,000
3.	Trucks		100,000
4.	Fork Lifts		148,000
5.	Front Loaders		132,000
6.	Collection Vehicles		3,300,000
7.	Static Compactor Units		1,335,000
8.			
9.			
10.	Miscellaneous		500,000
	Total Service Equipment	GB£s	**5,855,000**
	Total Capital Expenditures	GB£s	**66,395,000**

Operating Cost

	Personnel Cost		GB£s
1.	Operative Plant Staff		1,327,500
2.	Administration		973,125
3.	Welfare & Pensions		*included*
	Operation Cost		
4.	Insurance + Administration		420,000
5.	Standing Charges		360,000
6.	Fuel Oil Plant & Vehicles		208,000
7.	Chemical Agents & Acids		240,000
8.	Plasticisers		200,000
9.	Sundry Disposal Costs		200,000
10.	Routine Replacements		2,000,000
11.	Collection Fleet - Opex		3,423,725
12.	Densified Concrete - Opex		10,897,135
13.	Hazardous Waste - Opex		348,000
12.	Tyre Deconstruction - Opex		1,387,000
13.	Ethanol Biorefinery - Opex		2,951,139
14.	Miscellaneous		500,000
	Subtotal Operating Cost	GB£s	**25,435,624**
	Interest Cost on CapEx	7%	4,315,675
	Total Operating Cost	GB£s	**29,751,299**

Summary

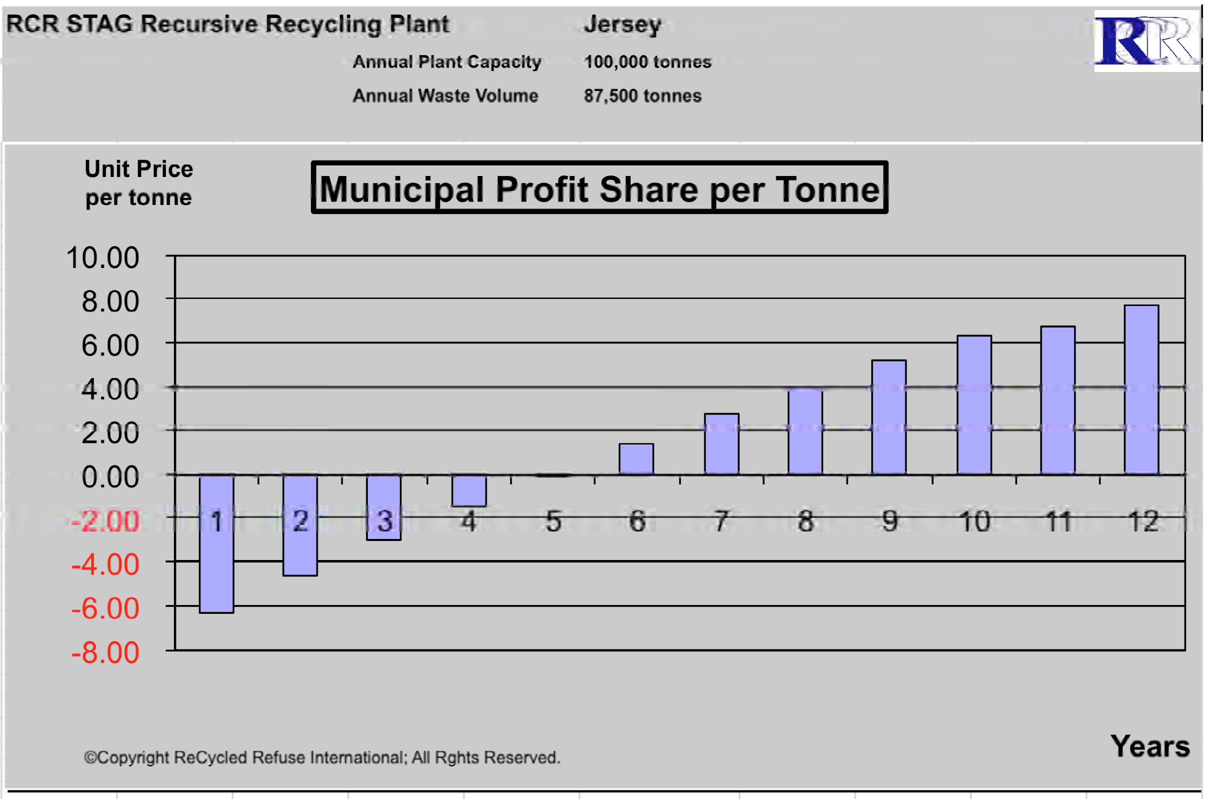
Plant and Machinery	GB£s	**60,540,000**
Service Equipment	GB£s	**5,855,000**
Operating Cost	GB£s	**29,751,299**
Total Project Cost	GB£s	**96,146,299**

NET TREATMENT AND DISPOSAL COSTS TO JERSEY PER TONNE-- YEARS 1-12

Municipal Profit Share, Years 1-12

RCR STAG Recursive Recycling Plant — Jersey — 87,500 tonnes

Production Year	Gate Fee / Collection	Municipal Profit Share	Municipal Profit / (Cost)	Tonnes MSW	Profit / (Cost) per tonne
	GB£s	GB£s	GB£s		GB£s
Year 1	6,125,000	5,573,194	(551,806)	87,500 tonnes	-6.31
Year 2	6,308,750	5,893,270	(415,480)	90,125 tonnes	-4.61
Year 3	6,498,013	6,220,035	(277,978)	92,829 tonnes	-2.99
Year 4	6,692,953	6,553,690	(139,263)	95,614 tonnes	-1.46
Year 5	6,893,741	6,894,441	700	98,482 tonnes	0.01
Year 6	7,100,554	7,242,502	141,949	101,436 tonnes	1.40
Year 7	7,313,570	7,598,092	284,522	104,480 tonnes	2.72
Year 8	7,532,977	7,961,437	428,459	107,614 tonnes	3.98
Year 9	7,758,967	8,332,768	573,802	110,842 tonnes	5.18
Year 10	7,991,736	8,712,327	720,591	114,168 tonnes	6.31
Year 11	8,231,488	9,017,553	786,066	117,593 tonnes	6.68
Year 12	8,478,432	9,414,314	935,881	121,120 tonnes	7.73
Totals	86,926,181	89,413,623	2,487,442	1,241,803 tonnes	



General Assumptions for the Cash Flow Statements

- MSW grows 3% per annum with commensurate increase in volumes of recyclates. Growth has been ignored in MSW volumes and also in recyclates volumes.
- All operating costs and operating incomes have been indexed annually at 3%
- No allowance for interest offset on accrued cash balances
- Bank interest and capital amortization is factored as paid monthly

Personnel Costs Assumptions

- All operating costs and operating incomes have been indexed annually
- Three 8-hour shifts per day for operational activities
- 25% Company contributions towards employee costs except admin and senior staff where total cost to Company concept is used.

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6.3 CASH FLOW—YEAR ONE

1st Year after Production Cash Flow | **87,500 tonnes p.a.** | **RCR STAG Recursive Recycling Plant** | **Jersey**

Revenues		Per Year GB£s	Per Month GB£s	Construction Period GB£s	Production Month 1 GB£s	Month 2 GB£s	Month 3 GB£s	Month 4 GB£s	Month 5 GB£s	Month 6 GB£s	Month 7 GB£s	Month 8 GB£s	Month 9 GB£s	Month 10 GB£s	Month 11 GB£s	Month 12 GB£s
Gate Fee		2,800,000	233,333		233,333	233,333	233,333	233,333	233,333	233,333	233,333	233,333	233,333	233,333	233,333	233,333
Collection Fee		3,325,000	277,083		277,083	277,083	277,083	277,083	277,083	277,083	277,083	277,083	277,083	277,083	277,083	277,083
Plastic		8,032,500	669,375		669,375	669,375	669,375	669,375	669,375	669,375	669,375	669,375	669,375	669,375	669,375	669,375
Glass		53,900	4,492		4,492	4,492	4,492	4,492	4,492	4,492	4,492	4,492	4,492	4,492	4,492	4,492
Non Ferrous Metals		490,000	40,833		40,833	40,833	40,833	40,833	40,833	40,833	40,833	40,833	40,833	40,833	40,833	40,833
Ferrous Metals		315,000	26,250		26,250	26,250	26,250	26,250	26,250	26,250	26,250	26,250	26,250	26,250	26,250	26,250
Aluminium		1,417,500	118,125		118,125	118,125	118,125	118,125	118,125	118,125	118,125	118,125	118,125	118,125	118,125	118,125
Densified Concrete Products		14,448,000	1,204,000		1,204,000	1,204,000	1,204,000	1,204,000	1,204,000	1,204,000	1,204,000	1,204,000	1,204,000	1,204,000	1,204,000	1,204,000
Hazardous Waste Revenues		58,950	4,913		4,913	4,913	4,913	4,913	4,913	4,913	4,913	4,913	4,913	4,913	4,913	4,913
Tyre Deconstruction Revenues		794,511	66,209		66,209	66,209	66,209	66,209	66,209	66,209	66,209	66,209	66,209	66,209	66,209	66,209
Ethanol Biorefinery Revenues		8,640,000	720,000		720,000	720,000	720,000	720,000	720,000	720,000	720,000	720,000	720,000	720,000	720,000	720,000
Green Electricity		1,576,800	131,400		131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400
CO2 Allowance Credits		184,013	15,334		15,334	15,334	15,334	15,334	15,334	15,334	15,334	15,334	15,334	15,334	15,334	15,334
Total Revenues		**42,136,174**	**3,511,348**		**3,511,348**	**3,511,348**	**3,511,348**	**3,511,348**	**3,511,348**	**3,511,348**	**3,511,348**	**3,511,348**	**3,511,348**	**3,511,348**	**3,511,348**	**3,511,348**
Capex - Total Plant & Machinery				60,540,000												
Capex - Total Service Equipment				5,855,000												
Total Capex				**66,395,000**												
Operating Cost																
Operative Plant Staff		1,327,500	110,625		110,625	110,625	110,625	110,625	110,625	110,625	110,625	110,625	110,625	110,625	110,625	110,625
Administration		973,125	81,094		81,094	81,094	81,094	81,094	81,094	81,094	81,094	81,094	81,094	81,094	81,094	81,094
Insurance + Administration		420,000	35,000		35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
Standing Charges		360,000	30,000		30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Fuel Oil Plant & Vehicles		208,000	17,333		17,333	17,333	17,333	17,333	17,333	17,333	17,333	17,333	17,333	17,333	17,333	17,333
Chemical Agents & Acids		240,000	20,000		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Plasticisers		200,000	16,667		16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667
Sundry Disposal Costs		200,000	16,667		16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667
Routine Replacements		2,000,000	166,667		166,667	166,667	166,667	166,667	166,667	166,667	166,667	166,667	166,667	166,667	166,667	166,667
Collection Fleet - Opex		3,423,725	285,310		285,310	285,310	285,310	285,310	285,310	285,310	285,310	285,310	285,310	285,310	285,310	285,310
Densified Concrete - Opex		10,897,135	908,095		908,095	908,095	908,095	908,095	908,095	908,095	908,095	908,095	908,095	908,095	908,095	908,095
Hazardous Waste - Opex		348,000	29,000		29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000
Tyre Deconstruction - Opex		1,387,000	115,583		115,583	115,583	115,583	115,583	115,583	115,583	115,583	115,583	115,583	115,583	115,583	115,583
Ethanol Biorefinery - Opex		2,951,139	245,928		245,928	245,928	245,928	245,928	245,928	245,928	245,928	245,928	245,928	245,928	245,928	245,928
Miscellaneous		500,000	41,667		41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667
Interest Cost on CapEx		4,315,675	359,640		359,640	359,640	359,640	359,640	359,640	359,640	359,640	359,640	359,640	359,640	359,640	359,640
Total Operating Cost		**29,751,299**	**2,479,275**		**2,479,275**	**2,479,275**	**2,479,275**	**2,479,275**	**2,479,275**	**2,479,275**	**2,479,275**	**2,479,275**	**2,479,275**	**2,479,275**	**2,479,275**	**2,479,275**
Actual Loss/Profit		**12,384,875**	**1,032,073**		**1,032,073**	**1,032,073**	**1,032,073**	**1,032,073**	**1,032,073**	**1,032,073**	**1,032,073**	**1,032,073**	**1,032,073**	**1,032,073**	**1,032,073**	**1,032,073**
Less % IRR on risk equity	10%	-1,238,487	-103,207		-103,207	-103,207	-103,207	-103,207	-103,207	-103,207	-103,207	-103,207	-103,207	-103,207	-103,207	-103,207
Net Profit before Amortization		**11,146,387**	**928,866**		**928,866**	**928,866**	**928,866**	**928,866**	**928,866**	**928,866**	**928,866**	**928,866**	**928,866**	**928,866**	**928,866**	**928,866**
Less Municipal Profit Share	50%	-5,573,194	-464,433		-464,433	-464,433	-464,433	-464,433	-464,433	-464,433	-464,433	-464,433	-464,433	-464,433	-464,433	-464,433
Less Capital Amortization	5.0%	-3,319,750	-276,646		-276,646	-276,646	-276,646	-276,646	-276,646	-276,646	-276,646	-276,646	-276,646	-276,646	-276,646	-276,646
Net Profit after Amortization		**2,253,444**	**187,787**		**187,787**	**187,787**	**187,787**	**187,787**	**187,787**	**187,787**	**187,787**	**187,787**	**187,787**	**187,787**	**187,787**	**187,787**

ReCycled Refuse International Ltd

6.4 CASH FLOW—YEARS 1-12

Cash Flow Year 1 - 12 87,500 tonnes p.a. **RCR STAG Recursive Recycling Plant** **Jersey**

		Per Year	Construction Period	Index	Production year 1	year 2	year 3	year 4	year 5	year 6	year 7	year 8	year 9	year 10	year 11	year 12
Revenues		GB£s	GB£s		GB£s	GB£s	GB£s	GB£s	GB£s	GB£s	GB£s	GB£s	GB£s	GB£s	GB£s	GB£s
Gate Fee		2,800,000		3.0%	2,800,000	2,884,000	2,970,520	3,059,636	3,151,425	3,245,967	3,343,346	3,443,647	3,546,956	3,653,365	3,762,966	3,875,855
Collection Fee		3,325,000		3.0%	3,325,000	3,424,750	3,527,493	3,633,317	3,742,317	3,854,586	3,970,224	4,089,331	4,212,011	4,338,371	4,468,522	4,602,578
Plastic		8,032,500		3.0%	8,032,500	8,273,475	8,521,679	8,777,330	9,040,650	9,311,869	9,591,225	9,878,962	10,175,331	10,480,591	10,795,008	11,118,859
Glass		53,900		3.0%	53,900	55,517	57,183	58,898	60,665	62,485	64,359	66,290	68,279	70,327	72,437	74,610
Non Ferrous Metals		490,000		3.0%	490,000	504,700	519,841	535,436	551,499	568,044	585,086	602,638	620,717	639,339	658,519	678,275
Ferrous Metals		315,000		3.0%	315,000	324,450	334,184	344,209	354,535	365,171	376,126	387,410	399,033	411,004	423,334	436,034
Aluminium		1,417,500		3.0%	1,417,500	1,460,025	1,503,826	1,548,941	1,595,409	1,643,271	1,692,569	1,743,346	1,795,647	1,849,516	1,905,001	1,962,152
Densified Concrete Products		14,448,000		3.0%	14,448,000	14,881,440	15,327,883	15,787,720	16,261,351	16,749,192	17,251,668	17,769,218	18,302,294	18,851,363	19,416,904	19,999,411
Hazardous Waste Revenues		58,950		3.0%	58,950	60,719	62,540	64,416	66,349	68,339	70,389	72,501	74,676	76,916	79,224	81,601
Tyre Deconstruction Revenues		794,511		3.0%	794,511	818,347	842,897	868,184	894,230	921,056	948,688	977,149	1,006,463	1,036,657	1,067,757	1,099,790
Ethanol Biorefinery Revenues		8,640,000		3.0%	8,640,000	8,899,200	9,166,176	9,441,161	9,724,396	10,016,128	10,316,612	10,626,110	10,944,894	11,273,240	11,611,438	11,959,781
Green Electricity		1,576,800		3.0%	1,576,800	1,624,104	1,672,827	1,723,012	1,774,702	1,827,943	1,882,782	1,939,265	1,997,443	2,057,366	2,119,087	2,182,660
CO2 Allowance Credits		184,013		0.0%	184,013	184,013	184,013	184,013	184,013	184,013	184,013	184,013	184,013	184,013		
Total Revenues		**42,136,174**			**42,136,174**	**43,394,739**	**44,691,061**	**46,026,272**	**47,401,540**	**48,818,066**	**50,277,087**	**51,779,879**	**53,327,755**	**54,922,068**	**56,380,197**	**58,071,603**
Capex																
Total Plant & Machinery			60,540,000													
Total Service Equipment			5,855,000													
Total Capex			**66,395,000**		**66,395,000**	**63,075,250**	**59,755,500**	**56,435,750**	**53,116,000**	**49,796,250**	**46,476,500**	**43,156,750**	**39,837,000**	**36,517,250**	**33,197,500**	**29,877,750**
Operating Cost																
Operative Plant Staff		1,327,500		3.0%	1,327,500	1,367,325	1,408,345	1,450,595	1,494,113	1,538,936	1,585,104	1,632,658	1,681,637	1,732,086	1,784,049	1,837,570
Administration		973,125		3.0%	973,125	1,002,319	1,032,388	1,063,360	1,095,261	1,128,119	1,161,962	1,196,821	1,232,726	1,269,707	1,307,799	1,347,033
Insurance + Administration		420,000		3.0%	420,000	432,600	445,578	458,945	472,714	486,895	501,502	516,547	532,043	548,005	564,445	581,378
Standing Charges		360,000		3.0%	360,000	370,800	381,924	393,382	405,183	417,339	429,859	442,755	456,037	469,718	483,810	498,324
Fuel Oil Plant & Vehicles		208,000		3.0%	208,000	214,240	220,667	227,287	234,106	241,129	248,363	255,814	263,488	271,393	279,535	287,921
Chemical Agents & Acids		240,000		3.0%	240,000	247,200	254,616	262,254	270,122	278,226	286,573	295,170	304,025	313,146	322,540	332,216
Plasticisers		200,000		3.0%	200,000	206,000	212,180	218,545	225,102	231,855	238,810	245,975	253,354	260,955	268,783	276,847
Sundry Disposal Costs		200,000		3.0%	200,000	206,000	212,180	218,545	225,102	231,855	238,810	245,975	253,354	260,955	268,783	276,847
Routine Replacements		2,000,000		3.0%	2,000,000	2,060,000	2,121,800	2,185,454	2,251,018	2,318,548	2,388,105	2,459,748	2,533,540	2,609,546	2,687,833	2,768,468
Collection Fleet - Opex		3,423,725		3.0%	3,423,725	3,526,437	3,632,230	3,741,197	3,853,433	3,969,036	4,088,107	4,210,750	4,337,072	4,467,185	4,601,200	4,739,236
Densified Concrete - Opex		10,897,135		3.0%	10,897,135	11,224,049	11,560,771	11,907,594	12,264,821	12,632,766	13,011,749	13,402,102	13,804,165	14,218,290	14,644,838	15,084,183
Hazardous Waste - Opex		348,000		3.0%	348,000	358,440	369,193	380,269	391,677	403,427	415,530	427,996	440,836	454,061	467,683	481,713
Tyre Deconstruction - Opex		1,387,000		3.0%	1,387,000	1,428,610	1,471,468	1,515,612	1,561,081	1,607,913	1,656,151	1,705,835	1,757,010	1,809,720	1,864,012	1,919,932
Ethanol Biorefinery - Opex		2,951,139		3.0%	2,951,139	3,039,673	3,130,863	3,224,789	3,321,533	3,421,179	3,523,814	3,629,529	3,738,415	3,850,567	3,966,084	4,085,067
Miscellaneous		500,000		3.0%	500,000	515,000	530,450	546,364	562,754	579,637	597,026	614,937	633,385	652,387	671,958	692,117
Subtotal Operation Cost		**25,435,624**			**25,435,624**	**26,198,693**	**26,984,654**	**27,794,193**	**28,628,019**	**29,486,859**	**30,371,465**	**31,282,609**	**32,221,087**	**33,187,720**	**34,183,352**	**35,208,852**
Interest Cost on CapEx		4,315,675		7%	4,315,675	4,099,891	3,884,108	3,668,324	3,452,540	3,236,756	3,020,973	2,805,189	2,589,405	2,373,621	2,157,838	1,942,054
Total Operating Cost		**29,751,299**			**29,751,299**	**30,298,584**	**30,868,761**	**31,462,517**	**32,080,559**	**32,723,616**	**33,392,438**	**34,087,798**	**34,810,492**	**35,561,341**	**36,341,189**	**37,150,906**
Actual Loss/Profit		**12,384,875**			**12,384,875**	**13,096,155**	**13,822,300**	**14,563,755**	**15,320,981**	**16,094,450**	**16,884,649**	**17,692,081**	**18,517,263**	**19,360,726**	**20,039,008**	**20,920,697**
Less % IRR on risk equity	10%	-1,238,487			-1,238,487	-1,309,615	-1,382,230	-1,456,376	-1,532,098	-1,609,445	-1,688,465	-1,769,208	-1,851,726	-1,936,073	-2,003,901	-2,092,070
Net Profit before Amortization		**11,146,387**			**11,146,387**	**11,786,539**	**12,440,070**	**13,107,380**	**13,788,883**	**14,485,005**	**15,196,184**	**15,922,873**	**16,665,537**	**17,424,654**	**18,035,107**	**18,828,627**
Less Municipal Profit Share	50%	-5,573,194			-5,573,194	-5,893,270	-6,220,035	-6,553,690	-6,894,441	-7,242,502	-7,598,092	-7,961,437	-8,332,768	-8,712,327	-9,017,553	-9,414,314
Less Capital Amortization	5.0%	-3,319,750	Amort. Years	20.00	-3,319,750	-3,319,750	-3,319,750	-3,319,750	-3,319,750	-3,319,750	-3,319,750	-3,319,750	-3,319,750	-3,319,750	-3,319,750	-3,319,750
Net Profit after Amortization		**2,253,444**			**2,253,444**	**2,573,520**	**2,900,285**	**3,233,940**	**3,574,691**	**3,922,752**	**4,278,342**	**4,641,687**	**5,013,018**	**5,392,577**	**5,697,803**	**6,094,564**

6.6 CONCLUSIONS

The attached projected cash flows and business case indicate that the project is feasible and commercially viable for Jersey with Jersey paying £32 Gate or Tipping Fee and the £38 Collection Fee. Jersey can convert its net MSW collection, treatment and disposal costs of £70 per tonne to a reduced process cost of only £6.31 per tonne.

Current costs on prevailing collection and disposal contract is £90.00 per tonne and are set to increase. This proposal will demonstrate the proposed £32 Tipping Fee / Gate Fee and Collection Fee of £38 equivalent to a combined £70 per tonne or £6,125,000 will be reduced by the proposed profit share of £5,573,194 to a net cost of £551,806 equivalent to a combined net disposal and collection cost of £6.31 per tonne. This cost includes dealing with regulated medical waste, waste oils, end of use tires, hazardous wastes. On existing costs that translates over twelve years to a net saving of £111,324,252.

RCR STAG Recursive Recycling Plant **Jersey**

Annual Plant Capacity: 100,000 tonnes
Annual Waste Volume: 87,500 tonnes

Savings Analysis

Gate and Collection Fee: 70.00 GB£s
Current Spending (est.): 90.00 GB£s

Production Year	Municipal Profit per tonne GB£s	Guaranteed Gate Fee per tonne GB£s	[1] Current Spending per tonne (est.) GB£s	[2] Guaranteed Savings per annum GB£s	[3] Audited Savings per annum GB£s
year 1	-6.31	70.00	90.00	1,750,000	5,573,194
year 2	-4.61	72.10	91.80	1,775,463	5,893,270
year 3	-2.99	74.26	93.64	1,798,371	6,220,035
year 4	-1.46	76.49	95.51	1,818,363	6,553,690
year 5	0.01	78.79	97.42	1,835,043	6,894,441
year 6	1.40	81.15	99.37	1,847,979	7,242,502
year 7	2.72	83.58	101.35	1,856,702	7,598,092
year 8	3.98	86.09	103.38	1,860,703	7,961,437
year 9	5.18	88.67	105.45	1,859,430	8,332,768
year 10	6.31	91.33	107.56	1,852,280	8,712,327
year 11	6.68	94.07	109.71	1,838,603	9,017,553
year 12	7.73	96.90	111.90	1,817,693	9,414,314
Sub-Totals				21,910,630	89,413,623
Total Savings yrs 1-12			GB£s	111,324,252	

[1] ***Current Spending*** *assumes that existing disposal charges and waste volumes increase marginally over time*

[2] ***Guaranteed Savings*** *is the annual difference between the* ***Current Spending (est.)*** *and the* ***Gate Fee*** *multiplied by the annual tonnage*

[3] ***Audited Savings*** *is the actual profit share payment to the City (per annum difference between Gate Fee (& Collection fee if applicable) and Municipal Profit/Cost)*

- This project exceeds all current EU and US directives and long term national goals for the treatment of municipal solid waste as set forth in the US Clean Air Act and applicable MACT regulations, as well as addressing goals in the US-EPA White Paper, RCRA 2020

The Carbon Emission Reduction provisions of the Kyoto Protocol call for reductions in carbon emissions of 7% from 1990 levels by 2008-2012. Furthermore, it is generally known and accepted by the scientific community that methane from landfills accounts for at least 18% of the total carbon emissions contributing to global warming. The robust carbon emissions certificates and displacement figures resulting from the implementation of this technology underscore the environmental and fiscal efficacy of this sustainable solution.

7.0 BUSINESS AND FINANCING APPROACHES

7.1 DETAILS

7.1.1 Suggested Name: RCR – The Jersey Waste Corporation

7.1.2 Status of the Company: To be incorporated as a private Limited Liability Company (LLC)

7.1.3 Company's Objectives: The Company will undertake the following activities:

- £66,395,000 inward investment over 15 months with not one penny being provided or guaranteed by the States of Jersey.
- To design, build and operate one (1) RCR STAG Recursive Recycling MSW treatment plants; one (1) C&D recycling stations with integrated C&D derivative densified concrete production; one (1) end of use tire deconstruction plant; one (1) waste oil recovery and re-refining facility; one (1) regulated medical waste treatment facility and clinical waste disposal unit; one (1) inert industrial and hazardous waste disposal facility and a fleet of 22 new vehicles and 4 static compactor units.
- To supply a fleet of 22 environmentally compliant waste compactor collection vehicles and 5 static compactor units to operate a scheduled collection service within the island.
- The operation of the facility is for a period of 25 years and should address all life-cycle issues to ensure the plant operates at its prescribed level of efficiency
- To reuse and recycle targeted C&D waste
- To deconstruct end of use tires; dispose of regulated medical waste, hazardous waste and waste oils.
- To generate 2MW/hour of renewable electricity
- To produce 12,000,000 litres of premium grade ethanol
- To produce 4767,000 litres of premium grade low sulphur diesel fuel.
- To achieve a zero waste and zero landfill solution for the island that wll deal with vehicle defragmentisation, waste oil treatment, hazardous waste treatment and the conversion of sewage sludge and sewage screenings into methane gas.

7.1.4 Authorized Share capital: To be advised

7.1.5 Paid up share Capital: To be advised

7.1.6 Utilization of paid up Capital:

It is intended to employ the capital as a contribution towards the acquisition of freehold land (or by way of a peppercorn lease); the construction of purpose-built buildings; the purchase of the prescribed plant and equipment.

7.1.7 Timetable through to financial close:

It has been the intention from the outset that the Project would be financed and up and running on or before 31 August 2008. The period needed to construct and assemble the plant is expected to be approximately 15 months (phased). This implies a limited period to carry our formal tender and structure the Project and to raise the finance for the plant.

In order to achieve this timetable, a number of sequential steps will need to be completed in the process of reaching financial close. In broad terms however, the following sequential steps will need to be completed in order to achieve timely financial close:

Project definition - a PPP – a Public Private Partnership

Project structuring - this includes the negotiation and drafting of all legal documentation in relation to:

- Creation of Special Purpose Vehicle ('SPV') – including negotiation of shareholder agreement and articles of association
- Creation of project financial model
- Construction Contract tender process
- Selection of preferred construction contractor
- Engineer Procure Construct ('EPC') contract negotiation
- Concession agreement (or equivalent type contract), including mutually acceptable profit sharing mechanisms
- Technology transfer/site license
- Power generation license and other related legal consents required
- Power sale agreement
- Off-take contracts with the various buyers of the processed product
- Environmental consents from local agencies and authorities
- License to operate a waste treatment plant

- Waste supply agreement between Jersey and the Sponsors

Financial structuring – once the project structuring has been completed and the majority of the project risks are quantifiable, then the extent to which the Project can be geared up can be determined

Finance raising process – approaches to various banks and financial institutions to secure both the debt and the equity funding, pursuant to the finalization of the optimal financial structure

Lender due diligence

legal drafting of financing documents, including

- Loan documents
- Security documents
- Legal opinions
- Inter-creditor agreements (as appropriate)

Satisfaction of suspense conditions

Financial close

7.1.8 The Public Private Partnership (PPP)

The Public Private Partnership is an important part of the Government's strategy for delivering high quality public services and it is perceived that such a partnership with Jersey will prove to be the best way forward.

In assessing where PPP is appropriate, Jersey's approach is based on its commitment to efficiency, equity and accountability and on the principles of public sector reform. PPP is only used where it can meet these requirements and deliver clear value for money without sacrificing the terms and conditions of staff.

Where these conditions are met, PPP delivers a number of important benefits. By requiring the private sector to put its own capital at risk and to deliver clear levels of service to the public over the long term, PPP helps to deliver high quality public services and ensure that public assets are delivered on time and to budget.

There is considerable market precedent for pursuing this route. Limited recourse financing can be raised using a stand-alone private SPV, which will own and operate the plant on an arms length basis from Jersey. The concession agreement will govern all the basic requirements of the business agreement as proposed by RCR in its submission and subsequent dealings with Jersey.

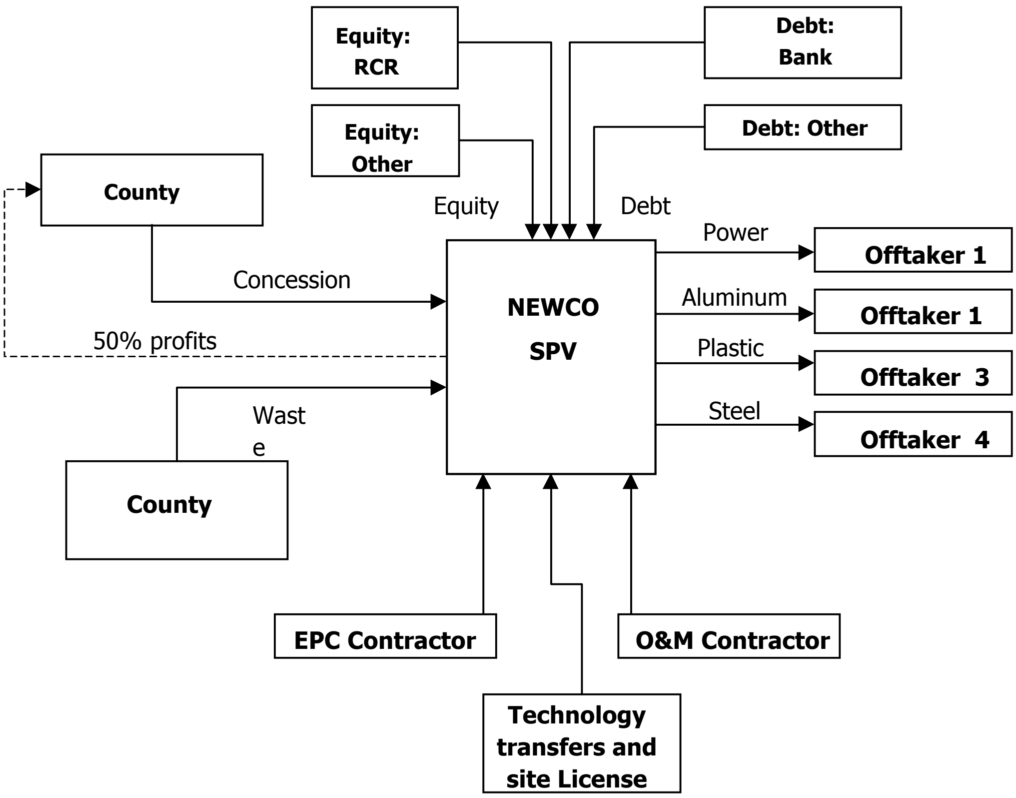
The basic elements of this business proposal are:

- The Sponsors have control over the Project, including the SPV
- Full transparency in the process and the day-to-day running of the business
- The Sponsors are responsible for the raising of the finance for the Project (i.e. both Debt and Equity)
- Jersey to receive a share of profits (i.e. 50%) calculated along the lines of the suggestion below:

	Operating Revenues
Less	Operating expenses
=	Net operating income
Less	Debt service reserves
=	Net Income available to Shareholders
Less	Profit share attributable to ordinary shareholders based on an agreed Equity IRR
=	Profits (to be shared 50% : 50% between Jersey and the Sponsors respectively).

The proposed PPP Structure:

The following diagram sets out the proposed PPP structure which we believe should be used in structuring this transaction:



Legal issues for consideration:

Legal aspects of advice to the Sponsors on the structure of the Project are as follows:

The basic principles of the contemplated project, namely the transfer to a private entity of the requirement to finance, provide, operate and maintain the waste project without any capital contribution from Jersey constitutes a public finance initiative.

The Companies Act – fully paid up shares on issue:

- The Companies Act requires that all shares must be fully paid up on issue
- A Company cannot provide a loan to one of its shareholders to acquire shares in itself as this constitutes financial assistance

The way forward:

In order to progress this transaction, we would like to suggest that the following steps are taken immediately:

- The Project needs to be agreed as a matter of extreme urgency
- As the Sponsor of this project, RCR should agree with the funding bank's key persons within its project team who should become the point persons to work with RCR and their legal advisors. The same needs to be done by the funding bank to ensure that it has persons sufficiently briefed to make decisions on behalf of it, involved in the process

7.1.9 Board of Directors

The Company's Board of Directors will be made up of representatives of each of the shareholder groups with a full time Chief Executive (to be appointed).

7.1.10 Bankers

The Company intends to establish an account with the local banks. A syndicate of European banks will provide the syndicated financing in the form of loan for working capital and capital to purchase the plant and equipment on the accepted basis of PPP as referred to above. All efforts will be made to attract international grant aid support for this project that will offset the project funding loan requirement.

7.2 MANAGEMENT

The Plant will be under the supervision of the Board of Directors. The positions of Chairman, Chief Executive Officer (CEO), Chief Financial Officer (CFO) and Environmental Compliance Director will be the exclusive appointment of the RCR Consortium. The technical management of the Company will be drawn from the consortium members as the turnkey contractor and project manager and having the requisite operational skills, engineering know how and expertise. Considerable efforts will be made to ensure that the Company is an equal opportunities employer and key positions will be filled by nationals or permanent residents.

The local operating Company will be working closely with other members of the RCR Consortium to oversee the development of the plant in Jersey and will be involved in the management and operation of the plant. In order to ensure the pertinent skills for the project, RCR will ensure that the local Company receives all the technical skills training.

7.3 PROJECT FINANCE AND PERFORMANCE BOND

The plant and machinery will be supported by a project finance based syndicated loan arranged through the consortium's bankers and own in-house capital projects finance division supported externally from European banks and funds. In order to achieve this there is a need to involve other bodies to establish how and if the enhancement of municipal covenants can be achieved if necessary.

The total project cost is estimated in excess of £66.3 million representing a large inward private investment into Jersey.

No public funds are required for the implementation of this project.

The Pre-investment and Working capital will be funded by Company's own equity and provided by the RCR Group for the pre-loan period.

A comprehensive AAA Performance Guarantee covering the design, engineering, commissioning and complete functionality as stated within the Contract and further elaborated upon in this Business proposal shall be provided to the Municipality (see *section 9.3*).

This 100% performance guarantee/bond mitigates all associated risks to Jersey.

7.4 LOCAL ECONOMIC EMPOWERMENT CONSIDERATIONS

The fundamental premise for this proposal will ensure that the local operating Company will set out within its articles of association and management ethos the desire and target to embrace a clear policy for Local Economic Empowerment.

Through RCR's local partners the RCR Group will continually strive to achieve local equity participation, local management involvement, local training programs and through established equity participation schemes, bonus packages and productivity bonuses local enrichment and wealth creation.

Employees will enjoy the benefits of a secure contract of employment that will incorporate productivity-related bonuses and equity participation schemes.

Broader equity participation may be achieved through the introduction of the Company to the Stock Exchange at some stage in the future.

8.0 ADDITIONAL CONSIDERATIONS

8.1 ENVIRONMENTAL RISKS

Every technology must be fully assessed according their resulting effects on the natural systems of the environment. The RCR STAG Recursive Recycling MSW treatment system safely and effectively removes toxins and pollutants in the waste stream in an enclosed, pre-treatment stage using steam, heat and pressure. This includes heavy metals, mercury, cadmium, organic compounds and others. Organic compounds are destroyed using high-pressure steam as the waste is processed at more than triple the requirements for sterile instruments in hospitals (65 minutes at 320º F (160ºC)). The remaining pollutants are separated and collected in the steam condensate from the pre-treatment process and removed for non-combustive disposal. The remaining recyclates are rendered, in effect, pollutant free, and therefore the products that they produce enjoy the same. The safe disposal of liquid toxic waste was pioneered by RCR during the 1990s in England and is currently the de-facto standard for Europe and the UK. The system exceeds all US and world standards for the safe removal and disposal of toxins.

- **Air:** The RCR STAG processes 100% of the MSW waste stream without combustion. The plants are equipped with sophisticated odor abatement systems and the internal facility is continually in a negative pressure state insuring that even unseemly odors from decomposing waste are quickly removed. There are no industrial emissions to the air from plant operations. The RCR STAG plant is the only known waste processing technology that has proven to be fully compliant with the Carbon Reduction provisions of the Kyoto Protocol.

  It is currently envisioned that all fibre to be used as alternative fuel for waste heat boilers for green electricity production. Air permits will be required as a matter of course. In this case, carbon diversion (and income from carbon diversion certificates) will increase by approximately nine times.

- **Water:** RCR has developed a proprietary water purification system, The Otter, which has proven highly effective at cleaning water by removing heavy metals, pesticides and other toxins. It is important to note that this system is used for water imported into the facility, imported slurries and the like. Toxins are safely removed and disposed of without combustion. There are no toxic hydro-outputs from the plant.

- **Land/soil:** In the process of mining or remediation of landfills, it is common to encounter contaminated soils which often include heavy metals, PCBs, volatile organic compounds (VOCs) and other pollutants. The RCR STAG process safely destroys all organic compounds with high temperature steam, and removes heavy metals and other pollutants for further disposal without combustion. Soils are then mixed with compost and returned in a clean state. The RCR STAG process does not create soil pollutants of any kind, rather it safely cleans them.

8.2 EVALUATING WTE TECHNOLOGIES

RCR STAG vs. Waste-to-Energy Incineration

A comprehensive article discussing salient points of WTE incineration is included as *Appendix 9.4* to this proposal.

Several large companies offer WTE treatment and disposal options for municipal waste streams. The untreated waste is incinerated producing heat, the heat is used to create steam, which is used to spin a turbine which produces electricity for resale to the local grid. Hot water and steam are often made available for general resale.

The following is a very brief assessment of the economics and basic environmental issues in comparing RCR STAG technology to WTE waste incineration:

Implementation Cost:

- WTE incinerators require a large capital investment for Jersey if the proposed expansion proceeds, reflecting higher Tipping Fees

- RCR STAG requires no capital investment from Jersey and a guaranteed £32 Tipping Fee and a Collection Fee of £38

Reliance on subsidies:

- WTE incinerators, as non-utility electricity producers, require government subsidies to the resale cost of electricity in order to be even somewhat viable in the energy market. Without these subsidies, WTE incinerators costs to the public can increase to more than £200 per tonne.

- RCR STAG pre-treats and removes metals, plastics, glass and other recyclates in a clean and optimized state for the highest resale. RCR STAG does not rely on subsidies to be competitive in the market, rather the diversified revenue stream of optimized recyclates generate 3-10 times or more revenue than WTE incinerators and without subsidies.

Revenue Stream:

RCR invites interested parties to compare the listed revenue streams (Para. 7.2) with any known WTE technology. RCR offers a Public-Private Partnership to Jersey with a 50% revenue sharing which reduces Jersey's aggregated collection and disposal costs to just £6.31 a tonne.

Toxic residuals:

- WTE incinerators do not employ a pre-treatment process to remove toxins and pollutants, but rather rely upon end-of-the-pipe control systems to capture as many particulates as possible. At the temperatures of combustion many of the toxic metals such as lead, cadmium, arsenic, mercury and chromium are liberated from otherwise fairly stable matrices like plastics. Flu gases and emissions cannot be continually monitored, dioxins and furans formation has been shown to occur at 100 times more than acceptable levels even after passing though modern high temperature air pollution controls, the high temperatures of combustion create nitric acid (NO) from nitrogen and oxygen which cannot be removed with alkaline chemicals such as lime and use of ammonia or urea is only about 60% effective (any NO not removed is later converted by sunlight into nitrogen dioxide (NO_2), which contributes to photochemical smog and acid rain). One quarter of the MSW burned ends up as bottom and fly ash which is a highly toxic residual requiring special handling and expensive disposal in sanitary landfill which can have very deleterious effects on surrounding ground water.

- RCR STAG with bio-refinery does not employ combustion and there are no industrial emissions into air, water or ground.

8.3 NIMBY ISSUES

It is obvious to City planners and engineers alike that the proximity principle of waste generation to waste treatment and disposal is vital to controlling costs. Unfortunately, locating close to waste generators means locating near population centers which invariably assures that NIMBY ("not in my backyard") issues will arise. No one wants to own property or raise a family near a smelly landfill or waste treatment plant that negatively impact air, soil and water well beyond their prescribed property lines. In the case of mass burn WTE facilities, the ferocity of opposition is increased exponentially as deep concerns exist vis-à-vis air- and water-borne carcinogens and their deleterious effect on human health and progeny.

RCR STAG offers a 100% non-incineration disposal option for MSW obviating the need for air permits as there are very low industrial emissions from combustion emitted to the air. Inside the plant, a sophisticated odour abatement system coupled with an advanced negative pressure design insures that even odors from decomposing waste are reduced to practically nil. If standing 20 feet outside the building, a normal person would not be able to discern by smell the nature of the processing inside.

The RCR plants can utilize fresh, river or gray (industrial) water as an input for the eventual generation of clean steam for processing and high-quality ethanol thanks to a state-of-the-art water treatment technology developed by RCR. The "Otter" water treatment system is a low cost and highly efficient technology used to render ever slurry water to a potable state.

While no one expects NIMBY issues to go away completely, if you don't combust, don't emit and don't pollute, there is little of substance to elicit complaints. RCR requires adequate land, normal utilities, good infrastructure and normal permitting for light industrial operations.

8.4 SOCIAL CHARTER, CAREER ADVANCEMENT AND EDUCATION ON SITE AND OFF SITE

RCR is committed to the science of sustainability including integrated political, economic, environmental and social effectuation. We believe that a good business should be financially successful and a good corporate citizen. We believe that technologies that innovate alternatives, reduce waste and extend our natural resources should be made available to the global community. We can help recycle and reuse practically all waste materials into beneficial products for optimum resale into the market with greatly reduced environmental stress.

RCR is an equal opportunities employer and commits to providing preference to displaced workers, including re-training, should the RCR sustainable model be adopted by Jersey. Flex-time employment and skills enhancement training will allow single parents to re-enter the workforce and older workers to leverage valuable experience and remain competitive for high paying jobs. Young women and females generally find it more difficult to secure employment on grounds of gender prejudice, incontinuity through unplanned pregnancies etc that strenuous efforts will be applied to prefer women into secure positions within the workforce and to bring about self worth, personal empowerment, hygiene and health, and parenting educational programs

The Company will guarantee career advancement and academic achievement through selection on merit of candidates within the work force to attend university or advanced college courses that will lead to academic recognition and commensurate increased remuneration packages. In partnership with selected first-tier Universities in Johannesburg and generally in America at known and accepted places of learning, the Company desires to implement a comprehensive higher education degree in Environmental Sciences, Economics and Management encompassing environmental science, sustainability, material reuse and resource conservation.

The Company will provide a bursary or educational grant to worthy students assessed and selected from all sectors of the workforce for academic advancement and entry into their sponsored degree programs. Dependent upon means they will range from 100% financial support to partial support.