



ENERGY FROM WASTE AND
BULKY WASTE FACILITIES

ENVIRONMENTAL IMPACT STATEMENT
Volume 1 – Non Technical Summary

JANUARY 2007



BABTIE FICHTNER LIMITED



Copy No	Final	Issued To	
---------	--------------	-----------	--

	Name	Signature(s)	Date
Rev :			
Originator	G. L. Ellis / S. E. Davies		January 2007
Reviewer	C. Taylor		
Authoriser	J. Weatherby		

Primary Distribution – Transport and Technical Services Department (TTSD)

Department	Staff Member	Position
TTSD	John Richardson	Chief Officer
TTSD	William Gardiner	Director, Waste Strategy Project
	Quintin Murfin	Principal Engineer, Waste Strategy Project

Copyright Babtie Fichtner Limited. All rights reserved.

No part of this report may be copied or reproduced by any means without prior written permission from Babtie Fichtner Limited. If you have received this report in error, please destroy all copies in your possession or control and notify Babtie Fichtner Limited.

This report has been prepared for the exclusive use of the commissioning party and unless otherwise agreed in writing by Babtie Fichtner Limited, no other party may use, make use of or rely on the contents of the report. No liability is accepted by Babtie Fichtner Limited for any use of this report, other than for the purposes for which it was originally prepared and provided.

Opinions and information provided in the report are on the basis of Babtie Fichtner Limited using due skill, care and diligence in the preparation of the same and no explicit warranty is provided as to their accuracy. It should be noted and it is expressly stated that no independent verification of any of the documents or information supplied to Babtie Fichtner Limited has been made.

1 NON TECHNICAL SUMMARY.....1

1.1 Introduction1

1.2 The Proposed Energy from Waste Facility3

1.3 Defining Environmental Impacts9

1.4 Assessment of Environmental Impacts11

1.5 Further Information on Project.....17

LIST OF VOLUMES, PHOTOMONTAGES AND DRAWINGS

Volume	Content
1	Non Technical Summary
2	Environmental Impact Statement Main Report and Appendices
3	Figures, Drawings and Photomontages

Photomontages	Title
Photomontage 01b	View from Le Havre de Pas Bathing Pool with facility
Photomontage 07b	Sea level view from Elizabeth Castle (breakwater) with facility

Drawings	Title
E201	Application Site Extent
E203	Facility Area Plan
E206	Floor plan and Elevations of EfW / BWF

Please note that Photomontage and Drawing numbers are based on those that accompany the Environmental Impact Statement and presented in Volume 3. This means that the photomontages and drawings accompanying this Non Technical Summary are non sequentially numbered.

Please note that drawings accompanying the Non Technical Summary are presented at A3 size. For scaled drawings please see the planning application where these drawings are presented at A1 size.

1 NON TECHNICAL SUMMARY

1.1 Introduction

1.1.1 About this Document

The proposed facility is an Energy from Waste (EfW) facility to recover energy from Jersey's residual solid waste, and a Bulky Waste Facility (BWF) to recycle or shred bulky waste for energy recovery. Outline planning permission is being sought to construct and operate the facilities which have been subject to an "Environmental Impact Assessment".

An "Environmental Impact Assessment" is a formal process and includes the identification of the significant environmental impacts that are likely to result from the construction and operation of the proposed waste facility. An Environmental Impact Assessment was carried out by Babbie Fichtner and the findings of the assessment are reported in an Environmental Impact Statement.

This Non-Technical Summary provides an overview of the main findings of the Environmental Impact Statement. It also:

- sets out the objectives of the proposed facility;
- describes the proposed site for the waste facility at La Collette and its context;
- describes the proposed Energy from Waste, facility and Bulky Waste Facility;
- outlines how the proposed facilities would operate, including compliance with the new Jersey Waste Management Licencing Regulations;
- presents the alternative sites and technologies that have been considered;
- describes how the Environmental Impact Assessment has been carried out;
- presents the significant impacts that have been identified; and
- describes how measures have been incorporated into the design of the proposed facility to minimise the environmental impact.

In addition to this Environmental Impact Statement the planning application is accompanied by a separate Supporting Statement, which summarises the need and basis for the proposed facility, and a Design Statement.

This Non Technical Summary is accompanied by

- photomontages showing what the Energy from Waste facility would look like from viewpoints along the south coast of Jersey;
- engineering plans showing the site location, layout of the site and side views of the facility

1.1.2 Objectives of the Proposed Facility

A Solid Waste Strategy ('The Waste Strategy') was adopted by the States of Jersey on 13th July 2005. The Waste Strategy proposed that an "integrated waste management system" should be developed, which means that coordinated services will be developed to manage all types of solid waste generated on the island.

The Waste Strategy detailed how much solid waste was generated and was expected to arise in future, based upon the historical records of the States of Jersey's Transport and Technical Services Department. After waste minimisation, recycling and composting measures proposed in the Waste Strategy have been implemented, Jersey will still have large quantities of residual waste requiring disposal.

As Jersey has no suitable landfill (sites where waste can be buried) for such waste, and export of waste from the Island was rejected as unsustainable, the Waste Strategy highlighted that a waste disposal facility for the sustainable treatment of residual waste is required.

The proposed facility would recover energy from the residual waste through burning the waste to generate steam which is used to generate electricity, thereby complying with internationally accepted best-practice for recovering value from waste which it is not environmentally or financially practical or desirable to recycle.

One of the main drivers for the new Energy from Waste facility is that the existing facility at Bellozanne has out-of-date air cleaning technology, and the Bellozanne facility is therefore a significant producer of air pollution on the Island. The proposed facility would process similar amounts of waste to the existing Bellozanne facility, but by using state-of-the-art air cleaning technology, would significantly improve Jersey's air quality.

The proposed Energy from Waste facility would also generate over twice as much electricity as the current Bellozanne facility from the same amount of waste. The proposed facility would be of a much more efficient design, with the capacity to produce 8.5% of the Island's annual electricity needs.

The States of Jersey are in the process of producing an Energy Policy for the Island and a draft document is due in early 2007.

1.1.3 Site Description and Context

The proposed Energy from Waste facility would be located on the reclamation area of La Collette. The La Collette land reclamation is a man-made area, which lies to the south of the town of St. Helier. La Collette is an area reclaimed from the sea, having been filled in with inert aggregate waste from the island.

The proposed Energy from Waste facility would be located with the existing States Bus Depot to the west, an existing grassed ash mound to the east and the Jersey Electricity Company power station to the north. An aggregate recycling operation, which is currently carried out to the south of the proposed site, will be completed before the proposed facility construction commences. The proposed site is currently being used by the States of Jersey Transport and Technical Services Department as a temporary reception area for green garden waste, timber and inert waste.

1.2 The Proposed Energy from Waste Facility

1.2.1 Overview of the Project

The Energy from Waste facility would include a building which is approximately 105 metres long and 39 metres wide and up to 35 metres tall. The Bulky Waste Facility would be in an adjoining building 41 metres by 28 metres.

The site footprint of the Energy from Waste facility would be 4,095 square metres and the Bulky Waste Facility 1,148 square metres. The overall site area of land used by the buildings and surrounding site roads, parking and manoeuvring areas (i.e. within the fence line) would be 14,819 square metres.

The proposed Energy from Waste facility would be capable of processing up to 126,000 tonnes of municipal and commercial solid waste each year. This is the maximum tonnage that would be accepted. An appropriately sized facility will be developed based upon the latest waste generation information available at the time that the contract for the proposed facility is let.

The principal elements of the proposed facility are as follows:

- a waste reception hall and storage bunker;
- a Bulky Waste Facility;
- a waste combustion (burning) furnace and steam generation boiler;
- a Flue Gas Treatment (air cleaning) System;
- control room, ancillary offices and electrical rooms; and;
- a visitor reception.

Domestic and commercial waste would be delivered in refuse collection vehicles and commercial vehicles to an enclosed reception hall and tipped within a bunker. Bulky waste, (waste that is over 1 metre in length or which cannot be accepted directly by the proposed facility), would be delivered to the neighboring Bulky Waste Facility and either separated for recycling, or shredded and then transferred back to the Energy from Waste facility bunker.

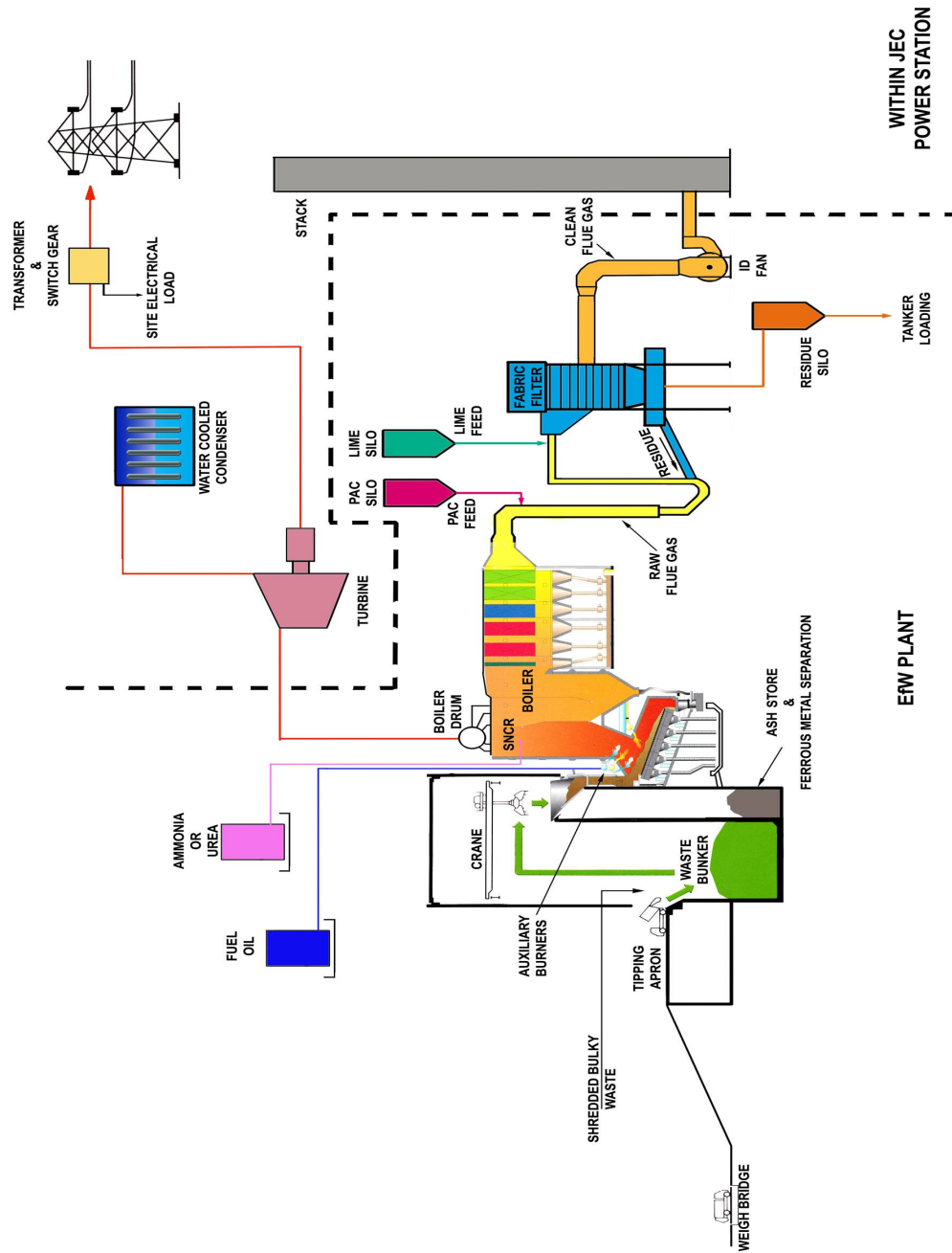
Pre-sorting of the bulky waste would be carried out within the Bulky Waste Facility prior to shredding, principally to separate out recyclable material and to exclude material unsuitable for further treatment.

All facilities would be located inside enclosed buildings, with no waste tipping outside. The Energy from Waste facility would combust (burn) the waste to heat water in a boiler to produce steam, which would be piped to the adjacent Jersey Electricity Company power station where it would be used to drive a steam turbine to generate electricity. The flue gases released during the combustion process would be cleaned and then conveyed by ducts to the adjacent Jersey Electricity Company power station chimney for release to the atmosphere. Comprehensive monitoring of the process will take place, including the release of gases through the chimney. It is proposed that reception facilities and offices will be rented within the adjacent Jersey Electricity Company power station, including an area where visitor tours and talks can be led from.

1.2.2 How the Energy from Waste Facility (Energy from Waste) Would Work

The Energy from Waste facility would be designed to convert waste into steam and then to electricity. An outline of the process is provided below.

Picture 1A: Energy from Waste Process



A weighbridge system would measure the arrival and departure weight of the vehicles, and calculate the delivered weight of waste. The vehicles would then reverse into an enclosed reception hall and tip the waste into a storage bunker. The vehicles would enter the building via roller shutter doors, which would open and close automatically to ensure the building remains sealed as much of the time as possible to minimise dust and odour release. The reception hall would also be served by air fans which would draw air into the building and feed it through the air cleaning system.

The Energy from Waste facility would have a minimum of two operating lines, each with a separate furnace, boiler and air cleaning system. This enables one line to be maintained whilst the other is in use, providing a continuous service.

Overhead cranes would load the waste into a feed chute which would deliver waste into the combustion furnace. The cranes would also be used to mix and turn over the waste to provide uniform feed material to the furnace and to remove any unsuitable waste and large objects such as mattresses or scaffolding tubes that might have passed through the collection system and might otherwise block the feed chute.

Ash from the combustion process would be collected from the bottom of the furnace, quenched in water to cool it, and then processed via a magnet to separate out metals. The metals would be recycled and the remaining bottom ash would be further processed for potential use as aggregate.

The gases from the boiler would be passed through filters to remove pollutants. The cleaned gases would be ducted to the Jersey Electricity Company power station and vented from new flues within the existing chimney stack. The external appearance of the chimney would be unchanged.

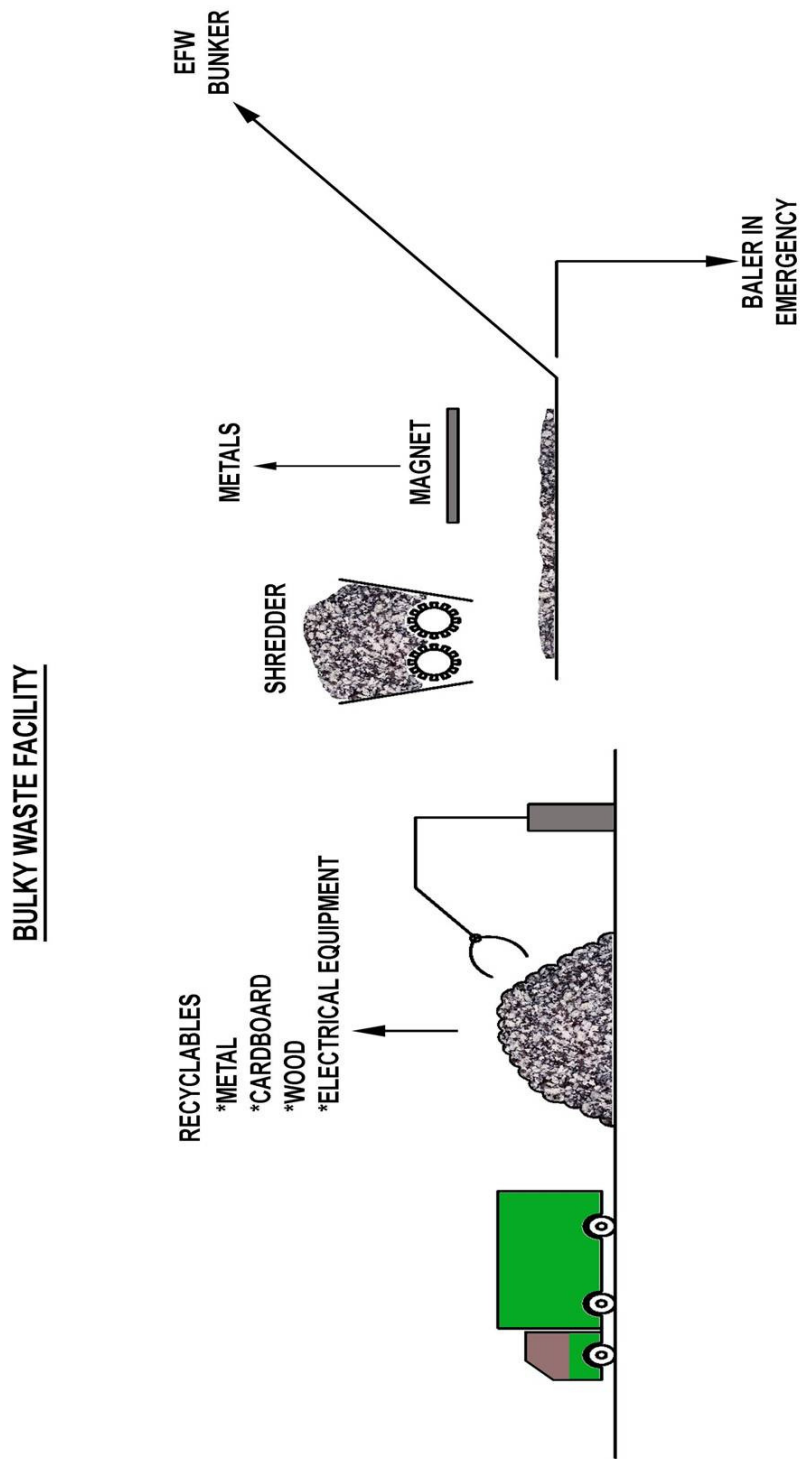
Steam from the boilers would be sent to the Jersey Electricity Company power station. Here it would be converted by a generator to create electricity to run the Energy from Waste facility with the excess electricity to be exported to the grid.

The site would be operated under a waste management licence in compliance with the new Waste Management (Jersey) Law 2005.

1.2.3 Bulky Waste Facility

The Bulky Waste Facility is required to replace the existing Refuse Handling Plant in Bellozanne valley. Bulky waste is currently shredded outside, and waste then stored prior to burning it in the current Bellozanne Energy from Waste facility when spare capacity is available. Noise and dust are not controlled sufficiently, and fires have been experienced in the stockpiled waste. The new Bulky Waste Facility would be part of the new Energy from Waste facility and allow bulky waste to be separated for recycling or shredded in a building, prior to immediate transfer to the Energy from Waste facility. This would avoid the need for the current practice of stockpiling waste in the open.

Picture 1B: Bulky Waste Facility process



Bulky domestic waste such as furniture, carpets, beds and mattresses or commercial waste such as construction waste (excluding bricks and rubble) would be delivered directly by lorry to the Bulky Waste Facility. Here the waste would be tipped and spread out on the concrete floor for inspection in order to remove items that are readily recyclable. Items which are recyclable, such as large white goods (fridges, freezers, cookers), gas cylinders and scaffolding tubes would be separated.

The remaining waste would be transferred into a shredder and then into the storage bunker located in the Energy from Waste reception. Metal will be removed from the shredded waste for recycling.

The Energy from Waste facility will be designed for continuous operation throughout its life. Each part of the facility will require maintenance every year, but this will take place with one or other of the (minimum) two lines in operation. The complete facility will only need to be shut infrequently for short periods of a few days at most, to carry out checks or repairs on common equipment. In emergency or in the unlikely event that the facilities were unable to process waste for a significant period (more than a week) shredded waste would be baled and plastic wrapped for stockpiling until such time as the facility is operational again. Some of the bales would be stored on site, but if the shut down is for a longer period bales would be transferred off site for storage at a suitable waste facility or exported for disposal if necessary. Bales would be stored under protective cover.

1.2.4 Domestic Non Bulky Waste

Domestic non-bulky waste would be delivered, by Refuse Collection Vehicles (RCVs) operated by the Parishes, directly into the Energy from Waste bunker in the waste reception hall.

1.2.5 Hazards Assessment

A workshop was convened on 5th September 2006 to consider the safety risks associated with the proposal to site an Energy from Waste facility at La Collette. This was led by the Transport and Technical Services Department and included representatives of the La Collette fuel operators, the Island's Emergency Planning Officer, Fire and Rescue Service, Jersey Harbours and other States of Jersey departments.

In summary, health and safety risks associated with the project have been assessed and it is concluded that the Energy from Waste plant would not pose any additional significant off site risk, noting that it might add additional sources of ignition in the event of flammable gas, vapour or liquid escaping from nearby fuel storage sites. However, there are already numerous sources of ignition closer to the fuel storage sites, including in the area between these and the proposed location of the Energy from Waste plant.

1.2.6 Construction of the Energy from Waste Facility

It is anticipated that construction could commence in early 2008, and with a construction period covering thirty months, the facility would be in full use by mid- 2010.

The Contractor would be required to adhere to noise control guidance issued by the Public Health Department of the States of Jersey and pollution prevention guidance issued by the Environment Protection Department of the States of Jersey.

Traffic management measures required during construction would be subject to application to the relevant highway authorities.

A Construction Environmental Action Plan would be included in the contract documents and be the responsibility of the Contractor to apply during the construction period. This would specify pollution control management and reporting procedures.

1.2.7 Alternative Sites

Consultation with the Environmental Protection Department of the States of Jersey has confirmed that consideration of potential alternative sites is a requirement of the Jersey Planning Process.

A total of 10 sites were identified for this site selection process. Most of these sites were not considered to be environmentally acceptable, or would cause major disruption to local residents.

The two favoured sites for the proposed Energy from Waste facility were at Bellozanne, on the site of the current Refuse Handling Plant, and at La Collette Phase 2 Reclamation, next to the existing Jersey Electricity Company power station.

Following the adoption of the Waste Strategy, detailed evaluation of these two sites for the proposed facility was undertaken. As a result, it emerged that the site at La Collette Phase 2 Reclamation is a much better site for operation of the facility and for ease and therefore reduced cost of construction. La Collette Phase 2 is therefore considered the best available site on the Island for a new Energy from Waste facility. This choice was accepted by the States of Jersey in the States on 27th June 2006, subject to Environmental Impact Assessment and planning application.

1.2.8 Technology Selection

An extensive review of the different technologies and methods suitable for disposing of residual waste was conducted as part of the tendering process. The evidence excluded many processes for the following key reasons:

- failure to meet Jersey's obligations under international agreements - this excluded solutions requiring the export of residual waste, or treated waste which had no defined recycling or treatment route;
- the inability to deal with the complete waste stream - this excluded specialist treatment solutions, or pre-treatment processes that required separate pre-treatment facilities in addition to an Energy from Waste facility such as Mechanical and Biological Treatment, or Mechanical Heat Treatment (autoclaving). Whilst such solutions are commercially available, pre-treatment facilities would be required, followed by an Energy from Waste facility and other facilities for other waste streams. As a small island with limited space and workforce, such solutions were not considered suitable ; or

- the lack of an existing similar facility with a track record of proven performance. This was a key factor in rejecting many “new and emerging technology” solutions being marketed. Jersey could not consider a process which is not operating successfully, with demonstrable life cycle costs and reliability.

Consideration of over 60 technologies or suppliers led to a limited number of practical solutions. All of these recover energy from the waste being processed in the form of electricity using a proven combustion or gasification process to convert the waste first into steam, and then to electricity. These solutions are quite similar in terms of environmental impact, so the results of the Environmental Impact Assessment are relevant for all the selected suppliers.

1.3 Defining Environmental Impacts

1.3.1 Context Within the Planning System

The proposed Energy from Waste facility, which forms part of the delivery of the Solid Waste Strategy for Jersey, has been assessed against Jersey Planning Policy requirements in the Jersey Island Plan 2002. In order to minimise the potential for pollution and nuisance of the proposed facility the following have been taken into account:

- the facility has been designed to comply with the Waste Management Licencing legislation to be implemented in Jersey,
- the proposed facility will be subject to a Jersey Waste Management Licence and a Site Working Plan;
- pollution control and nuisance minimisation has been an essential part of the design process; and
- although Jersey is not bound by European legislation, the proposed facility is being specified to operate within best practice identified within European Directives to take into account Jersey’s obligations on trans-boundary pollution and additionally achieving the emission requirements of the European Union Waste Incineration Directive.

The proposed facility would be in accordance with the planning and sustainability policies of the States of Jersey Island Plan.

1.3.2 The Scope of the Assessment

The scope of the assessment was agreed with the Environment Department, which is responsible for assessing all Environmental Impact Assessment submitted to the States of Jersey, and the following issues have been identified for assessment:

- air quality – odour, flue gas emissions and traffic related emissions;
- archaeology and built heritage;
- biodiversity;
- construction and operational issues;
- ground conditions;

- hazard assessment;
- landscape, landuse and visual impact;
- noise;
- planning context;
- sustainability;
- traffic and transportation;
- material assets;
- waste licencing;
- water resources and drainage.

An additional part of the Environmental Impact Assessment process requires the project to be assessed with respect to its compliance with planning and other policies.

1.3.3 Assessing Significant Effects (Impacts)

A significant effect (impact) can be described as one that is sufficiently important and when deciding if the scheme should be approved should be taken into account. The significant effects of the project have been identified for each of the topics by comparing the existing (or baseline) environmental conditions with the conditions that are predicted to exist if the facility is built and operating.

1.3.4 Reducing or Avoiding Adverse Effects (Mitigation)

Reducing or avoiding adverse effects (also called mitigation) of the proposed facility on the environment has been a key consideration throughout the planning and design of the facility.

A Construction Environmental Action Plan will be developed which would set out how the construction process will be managed to control and reduce any potential adverse impacts.

It has also been recognised that the project will also have significant beneficial impacts during operation which have been taken into account when looking at the overall net environmental impact of the project as a whole.

The Environmental Statement reports the predicted impacts that are likely to remain after mitigation has been applied (residual impacts) and which are considered to be significant. These predicted impacts are outlined in section 1.4.

1.3.5 Consultations

Consultations with the relevant departments of the States of Jersey during the environmental assessment process have been carried out as series of meetings in which all elements of the design have been considered.

A draft consultation document was published in September 2004 as part of the consultation process for the Solid Waste Strategy. Public presentations were also made to give members of the public an opportunity to feed back on the proposals. This feedback was used to update the Strategy which was then published in May 2005.

The design team has held detailed discussions with the Assistant Director of the Public Health Department in order to provide information for a Health Impact Assessment of the proposed facilities. The Health Impact Assessment will be carried out by the Department of Health and Social Services, supported by independent specialists.

1.4 Assessment of Environmental Impacts

1.4.1 Air Quality – Flue Chimney Emissions, Odour and Traffic

There is no specific air pollution legislation in Jersey. The States of Jersey has agreed to adopt the limits set out in a European Union Directive (the Air Quality Limits Daughter Directive) which sets limit values for pollutants emitted by waste facilities. This Directive covers processes which are based on incineration, gasification or pyrolysis as emissions are largely similar.

The potential impacts from the proposed Energy from Waste facility include:

- flue gas emissions from the waste combustion process;
- nuisance odour from the feed waste handling process;
- nuisance odour and dust from the residual ash handling and disposal;
- dust and vehicle emissions during construction of the facility; and
- emissions from operational vehicles and traffic accessing the site.

Assessment of the expected flue gases from the new facility has predicted that no failures of European air quality objectives or guidelines would occur.

For all pollutants, the new facility should have a beneficial reduced impact on the Island's air quality compared to the current facility at Bellozanne. The reduction is small for some pollutants, but rising to a reduction of over 500 times for other pollutants.

When discussing waste incineration, dioxins emissions are often raised as a concern. Dioxins are persistent organic pollutants, which are extremely toxic. Historically, waste incinerators used to be a major source of dioxin emissions. However, improved design, combustion control and flue gas cleaning has eliminated the vast majority of dioxin emissions to air. To demonstrate this satisfactorily, a health risk assessment has been carried out for dioxins. This concluded that the dioxin emission contribution from the new facility would be less than 0.2% of the acceptable daily intake for a local adult which represents a very significant improvement over the current exposure from the Bellozanne facility. A similar assessment for heavy metals concluded that the contribution from the new and old plants would be insignificant and is well within all current health guidelines. The new facility will emit around 500 times less dioxins from its chimney than are emitted from Bellozanne.

The construction of the facility could result in temporary emissions to air due mainly to dust created by the works and the use of machinery. Conditions will be placed upon the Contractor to control the emissions from vehicles and generators during the construction phase.

Road traffic is one of the principal sources of air pollution on the Island other than the existing Energy from Waste facility at Bellozanne and therefore the changes to the traffic volumes on the local road network associated with the operational phase of the development have been assessed. The changes in road traffic levels associated with the introduction of operational traffic are not predicted to give rise to any significant changes in air quality during the operation of the Energy from Waste facility. Prior to construction a Traffic Management Plan would be drawn up. The relatively short distance from the harbour to the site will minimise the amount of disruption caused by larger loads of construction materials collected from the harbour and delivered to site.

1.4.2 Archaeology and Built Heritage

There are no archaeological features that would be directly affected by the proposed access improvements. There a number of sites registered as designated sites in the vicinity of La Collette; namely the Territorial Army Head Quarters, La Collette Tower; and Elizabeth Castle.

The proposed facility would have no significant impact on any of these designated sites, other than the outlook from the sites would be affected.

1.4.3 Biodiversity

The La Collette Phase 2 Reclamation is almost wholly comprised of man-made and highly disturbed habitats, including both open and capped ash pits, bare soil substrates, infilled areas and tipped materials such as timber, rubble and plastics.

Given the high levels of disturbance, much of the site is devoid of vegetation; the exceptions being a limited number of common plant species on stored soils, and a sparse cover of rough grassland on a capped ash pit on the northern edge of the site. The area is not assessed to support plant or animal species of significant conservation value.

The seaward edge of the reclamation area is vegetated with a mix of scrub species. The States of Jersey Ecologist has been monitoring the habitat over several years and it is, in his opinion, unremarkable. There are occasional invasive garden plant species present which should be controlled.

1.4.4 The South East Coast of Jersey RAMSAR Site

The coastal waters to the south east of La Collette is a site considered to have great ecological value due to the diverse range of habitats, communities and species found in a comparatively small area.

Water pollution risk to coastal habitat will be mitigated through controls on construction placed on the Contractor and measures included in the design of the facility to separate, collect and dispose potentially polluted leachate and site drainage during its operation.

The proposed facility would not directly discharge heat to the sea. However, steam would be sent to the Jersey Electricity Company power station where it would be passed through a steam turbine and condensed, with the condensed water being discharged to the sea via the existing outfall. The additional load from the Energy from Waste facility the cooling system would not exceed previous thermal loading and therefore the new facility would operate within the conditions of the existing consent. It is therefore expected that any impact on coastal habitat would continue as currently i.e. extremely localised and of minor significance.

1.4.5 Ground Conditions

La Collette is land reclaimed from the sea and comprises in-fill behind a large rock embankment. The filling is derived from inert waste material and includes excavated natural soils and rocks as well as building waste such as concrete and masonry.

A ground investigation carried out by drilling boreholes has been carried out for the site of the proposed Energy from Waste facility.

It is anticipated that some of the heavy structure foundations may require construction piling to the rock. Concrete used for buried structures such as foundations may need to be constructed from a higher grade of concrete than normally required due to the saline ground conditions.

Based on the observations during the site investigation, the nature of the fill material is considered acceptable for the type of construction proposed and excavated materials could be re-used on site without treatment. Excess excavated material would be relocated within the La Collette Phase 2 Reclamation site within the landscaped mound to the east.

A “watching brief” for the potential contamination would be implemented during construction of the facilities. Any contamination that is identified would be addressed in accordance with the requirements of the Environment Protection department of the States of Jersey. It is proposed to modify the landscaping of the ash mound in order to improve the landscape setting of the facility.

1.4.6 Landscape and Visual Impact

Landscape

La Collette is a large promontory within St Aubin’s Bay. Much of it is reclaimed land. It is zoned as industry in the Island Plan. This is well established on the area. It is also zoned for mounding and landscaping along the eastern boundary to form a screen for the seafront area of Havre des Pas. To the west the harbour and ferry terminals have a more functional character. This area and La Collette have landscapes that would be difficult to damage, but the landscape of Havre des Pas could be damaged more easily.

The new Energy from Waste facility would be too tall to be concealed by the landscape area, but the eastern boundary of La Collette can provide a setting for the new building so that its effect on Havre des Pas would be lessened. This setting would be made of mounds with planting that would be designed to ultimately be similar in character to the existing vegetation at La Collette Gardens. The existing ash mound would be re-profiled by adding material and, in the longer term, another mound would be formed to the south of the Energy from Waste facility. A path leading to a viewing area with information panels on the view would be formed on the re-profiled ash mound. Together these mounds would form the landscape setting, but the appearance of the building would be even more important. South of the new building a 1:3 bank with tree and shrub planting linking to other planting would form a narrow zone between these mounds.

Until the southern mound is formed the landscape setting would not be complete, and would create a noticeable adverse change for the Havre des Pas seafront area. This would not be significant for the landscapes to the west.

Views

Havre des Pas and La Greve D'Azette to Le Croc (Green Island) to the east, and West Park to Noir Mont to the west, including the hillside areas above the seafront - all these areas have views of the location where the Energy from Waste facility would be sited.

For all the views from the west the new Energy from Waste facility would be seen beyond other buildings on La Collette in the foreground and would not create significant impacts. In these views the choice of colour for the building would be the most important consideration. This analysis for colour would be conducted during the detailed design phase to confirm the appropriate colour of the building. The colour of the current elevations is for illustrative purpose only.

For views from the east the measures proposed to create the landscape setting along the eastern boundary of La Collette are equally relevant, but due the closeness of views at Havre Des Pas the appearance and detailing of the building's elevations will also be vitally important. With the proposed measures the adverse impact on views from the areas of Havre des Pas and Les Grand Charriers would be noticeable and barely perceptible respectively. At Le Croc (Green Island) they would be noticeable because of the line of view directly over the narrow zone between the mounds.

Residual Impacts

When the full landscape setting is created by the addition of the southern mound and its planting the Energy from Waste facility would still create a small adverse landscape impact on the seafront at Havre des Pas because of its inevitable intrusive nature.

All views from the west would continue to be insignificantly affected, but the impact on views from the east, at Havre des Pas would remain the same because of the proximity of the building. At this time at Les Grand Charriers the completed landscape setting would reduce adverse impacts on views to a small level, but at Le Croc (Green Island) the line of view would mean that the noticeable adverse impact would remain unchanged.

Comment on Impacts

The assessments of the impacts given here are based on the information available on the design of the building at this stage. But the detailed design stage, which lies ahead, has the potential to develop refinements to the design that could give it an architectural quality essential for its large size. Such a treatment would give to the building a character that generates its own appeal, in the same way that the adjacent power station chimney has in local views and opinions, which would give it an acceptability that the existing designs currently cannot fully demonstrate.

1.4.7 Noise

Potential noise impacts were considered in the context of the existing background noise at the site, which is influenced by road traffic, industrial noise and commercial activities. Noise impacts were also considered in the context of background sound from the sea nearby.

During the construction phase of the development, there would be a variety of noise sources at different stages. Best practical means would be employed to control the noise being generated and hours of operation will be in accordance with the current Public Health Department's Guide on Noise Control for Construction Sites.

For operational noise proposed mitigation measures will ensure that the resulting noise levels are within the relevant standards and guidance. The measures adopted would be to mitigate any potential peak noise sources and to prevent noisy activities such as shredding within the Bulky Waste Facility being carried out during specific periods e.g. at night times and Sundays.

During the operation of the site it is concluded that the residual impact, given the proposed mitigation measures, is likely to be a negligible. The impact on existing residential areas from any increase in road traffic noise on local roads during the daytime period is predicted to have a negligible effect.

1.4.8 Traffic and Transportation

To determine the significance of traffic impact the traffic system was examined to find out the effect on traffic of the current Energy from Waste facility at Bellozanne. This was then used to assess the probable effect of traffic from the new facility.

The types of traffic vehicles that would be traveling to La Collette would be those Refuse Collection Vehicles operated by the parishes of Jersey and commercial vehicles delivering trade and commercial waste to the Energy from Waste and Bulky Waste Facilities.

As part of the traffic assessment process the States of Jersey Highways Department has commissioned a traffic assessment of the junctions of Mount Bingham and The Quay (at the monument) and of La Route de Veulle with the proposed road to the Energy from Waste and Bulky Waste facilities.

The existing junction at Mount Bingham / The Quay is assessed to be within capacity with the facility operating in 2015. The junction with La Route de Veulle will also have the capacity to cater for the potential traffic flow in 2015.

The proposals to construct the Energy from Waste and Bulky Waste facilities at La Collette would result in a significant reduction in traffic along Bellozanne Valley. The reduction which would be almost entirely commercial vehicles is expected to result in a noticeable benefit to residents.

The proposal would cause a slight increase in traffic flows at Commercial Buildings / The Quay. Increased traffic at Mount Bingham and Havre des Pas is predicted to be around 1%. The increase in the proportion of existing commercial vehicles is predicted to be less than 1% and is not expected to be discernible to residents.

The increased traffic along La Route de Veulle as a result of the proposals is predicted to be about 9% but this would be mitigated by improvement to the existing junction layout and the creation of an adoptable access road to the Energy from Waste site.

An emergency pedestrian evacuation route would be constructed as part of the proposals which will link the reclamation area to the existing coastal path to the east. The emergency route which could also be used for vehicle access in an emergency would improve the safety of the reclamation area.

1.4.9 Water Resources and Drainage

There are no surface water features such as rivers, streams or ponds within the reclamation area, however the site is within 30 metres of the sea.

Pollution control measures will be incorporated into the design of the facility and specified within the Working Plan in accordance with the requirements of a future site licence under the Waste Regulations. In consultation with Environment Protection Department, it was agreed that no baseline water quality monitoring of groundwater or coastal waters was necessary for this Environmental Impact Statement.

The facility has been designed to minimise any pollution risk to groundwater as a result of waste handling or site management activities through engineered containment and drainage systems. The facility would operate on the principle that uncontaminated and potentially contaminated drainage are kept separate within separate drainage systems.

Steam from the combustion process would be sent to the Jersey Electricity Company power station where it would be passed through a steam turbine and condensed prior to discharge from the existing culverted outfall to the sea on the eastern side of the La Collette reclamation area.

There would be no additional load from the new Energy from Waste facility cooling system compared to the previous thermal loading from the power station and therefore the new facility would operate within the conditions of the existing discharge consent.

The worst case scenarios for predicted sea level rise as a result of global warming is below the proposed facility platform level and therefore the proposed facility is not at risk of flooding from coastal waters.

During construction the appointed contractor will be required to adhere to the specified pollution prevention guidance issued by the Environment Protection Department of the States of Jersey.

Drainage from site roads and maneuvering areas would be collected in a surface water drainage system and discharged via an interceptor to ground or directly to the sea. There would be a drainage retaining system to prevent spillages of pollutants being discharged from the drainage system in the event of an accident. Roof drainage is assessed as uncontaminated and would be discharged directly to ground or the sea.

All chemicals silos will be either of double skinned construction or contained within an appropriately sized bunded area.

1.5 Further Information on Project

If you have a query about the proposal or want more information you can contact the Waste Strategy Projects Team at:

Waste Strategy Projects Team

Will Gardiner (Director Waste Strategy Projects)

email: w.gardiner@gov.je

tel: +44 (0) 1534 448320

Quintin Murfin (Principal Engineer - Site Development)

email: q.murfin@gov.je

tel: +44 (0) 1534 448324