

### **Appendix 3**

#### **Board of Health's Response to the Strategy to Extend Landfill Life**

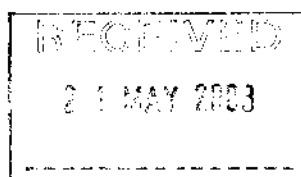
Ref: B1.5



States of Guernsey  
**BOARD OF  
HEALTH**

JOHN HENRY HOUSE,  
LE VAUQUIEDOR,  
ST. MARTIN'S, GUERNSEY  
GY4 6UG, CHANNEL ISLANDS.  
TEL: 01481 735241  
FAX: 01481 235341

The President  
States Board of Administration  
Sir Charles Frossard House  
P.O. Box 43  
La Charroterie  
St Peter Port  
GY1 1FH



19 May, 2003

Dear Deputy Berry

### **Energy from Waste Facility – Status and Way Forward**

I refer to your letter dated 23 April 2003 and the attached section of the policy letter in respect of the procurement of an energy from waste facility.

In its role as waste regulation authority for Guernsey, the Board has adopted the policy that the best available technique is employed for any waste disposal or treatment process. The new Control of Environmental Pollution Law that the Board intends to bring before the States later this year will specify that best available techniques be employed for all waste activities.

The Board does not consider the landfilling of untreated putrescible waste to be the best available technique for waste disposal and it is intended that the standards of the EU Landfill Directive will be applied to any proposed new putrescible landfill site.

It is most unlikely that any new applications for landfilling untreated putrescible waste will be issued with a licence by the Board or any subsequent waste regulation authority. The establishment of a new landfill site for untreated putrescible waste, therefore, should not be considered an option.

Extensive research and consultation over many years has established that the best environmental option for waste disposal in Guernsey is the early procurement and operation of an energy from waste facility designed to utilise best available techniques for pollution prevention.

The Board, therefore, supports the procurement of an energy from waste facility without further delay and opposes any extension of the landfilling of untreated putrescible waste. The Board would be happy for this letter to be appended to your policy letter.

Yours sincerely

P J R Roffey  
President

#### **Appendix 4**

**A time line setting out the key dates in respect of the Sustainable Options to  
Extend Landfill Life strategy**



## **Appendix 5**

**Response from the Housing Authority regarding the use of Board of  
Administration land adjacent to the EfW site for Temporary Accommodation  
facilities for Construction Workers**

PAC

# States of Guernsey HOUSING AUTHORITY



Sir Charles Frossard House  
P O Box 43  
La Charroterie  
St Peter Port  
Guernsey  
GY1 1FH

President  
Board of Administration  
Sir Charles Frossard House  
P O Box 43  
Charroterie  
St Peter Port GY1 1FH

25<sup>th</sup> November 2002

2002 AON 9 Z

Dear Deputy Berry

## **ENERGY FROM WASTE FACILITY CONSTRUCTION – TEMPORARY ACCOMMODATION**

Thank you for your letter dated 29 October 2002 concerning the proposal to accommodate workers concerned with the Waste Facility contract in temporary accommodation sited on States owned land and in Furzedown which is now in States ownership.

I confirm that the Authority supports the proposal to accommodate staff in this way so as to reduce pressure on the housing stock.

I also confirm that under the provisions of Section 65 of the Housing (Control of Occupation) (Guernsey) Law 1994, no provision of the Law applies to dwellings in the ownership or possession of the States. The word "dwelling" in this context means any premises or any part of any premises used or usable for the purposes of human habitation.

This means that, at present, persons accommodated in either Furzedown or temporary accommodation on States owned land, would not require housing licences.

One effect of this is that the persons employed on the contract and accommodated in this way would not be required to declare any criminal convictions that they may have, which is a requirement in respect of any person making application for an employment related licence.

In seeking to solve the accommodation problem for the contractor the Authority feels sure that it is not the Board's motive to avoid the need for employees to be subject to the criminal record checks which would apply if they needed housing licences.

The Authority had considered requesting a voluntary arrangement to declare convictions but realised that this would be unenforceable and could possibly infringe an individual's rights as it would not be "in accordance with the law".

/

However, the provisions of Section 65 can be suspended by the States by Ordinance. The Ordinance can be specific to an individual Committee of the States or to individual properties.

The Authority would therefore propose that the States be requested to approve an Ordinance which suspended the provisions of Section 65 in respect of the property Furzedown and any temporary accommodation constructed on States owned land for the purpose of accommodating persons who are not States employees.

If such an Ordinance were approved the employees of the contractor and sub-contractors so accommodated would require housing licences and would therefore be subject to the requirement to declare their criminal records in accordance with the Law.

On a more general point, the Authority is concerned that the problem of accommodating construction workers on States projects can be overcome by providing accommodation on States owned land but no such facility is currently available to construction firms undertaking private contracts.

The Authority considers that there should be a coordinated approach across the relevant States Committees to ensure equitable treatment for contractors engaged in either the public and private sectors.

The Authority would be obliged if you would append this letter to your policy letter. It is also requested that you include a proposition to direct the preparation of an Ordinance to suspend the provisions of Section 65 in respect of Furzedown and the temporary accommodation as set out above.

Yours sincerely



B M Floquet  
President

## **Appendix 6**

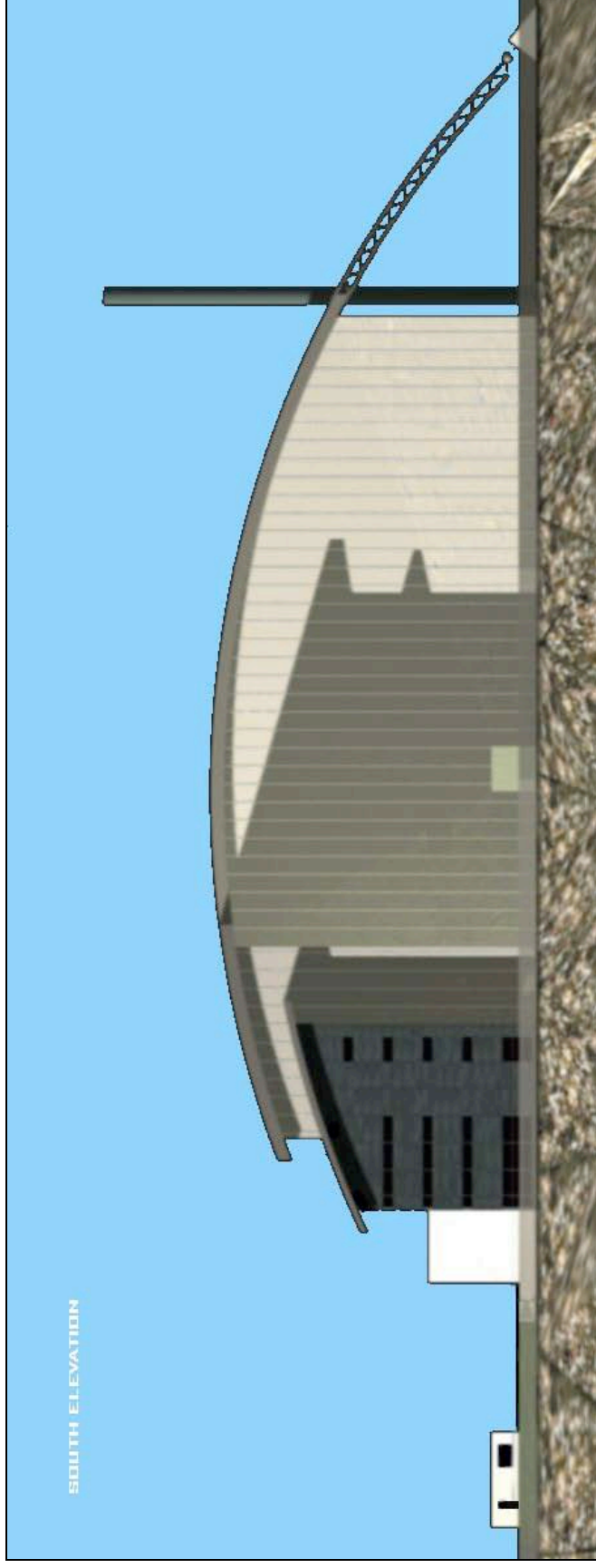
### **Tenderers' Architectural Concepts**



## Martin Engineering Systems – Architectural Proposal



## Lurgi – Architectural Proposal



**Appendix 7**

**Tender evaluation report**

# GUERNSEY TECHNICAL SERVICES

Guernsey EfW Plant  
Tender Appraisal Report

June 2003

Job 157003K  
Ref.No. 834-031226  
Edition Final  
30 June 2003

Prepd.	KJJ/eas/cas/sad/RDC/JMN
Checked	PEHA
Appd.	TR

## Table of contents

1.	Background	1
2.	Presentation of Tenderers	2
2.1	LURGI	2
2.1.1	Organisation	2
2.1.2	Parent Company Guarantee (PCG)	2
2.2	MES	2
2.2.1	Organisation	2
2.2.2	Parent Company Guarantee (PCG)	5
2.3	Discussion	6
3.	Tender Evaluation Criteria	7
4.	Technical Proposal	8
4.1	LURGI	8
4.2	MES	8
4.3	Technical discussion	9
4.3.1	Reception facilities	9
4.3.2	Incinerator technology	10
4.3.3	Boiler	12
4.3.4	Energy recovery	15
4.3.5	Flue Gas Treatment	16
4.3.6	Plume Visibility	17
4.3.7	Wastewater Treatment	17
4.3.8	NH <sub>3</sub> removal	17
4.3.9	Residue Handling	18
4.3.10	Architectural Solution	18
4.3.11	Civil Works	19
5.	Management Proposal	21
6.	Financial Proposal	22
6.1	LURGI	24
6.2	MES	24
6.3	Comparison	25
7.	Legal	27
7.1	LURGI	27
7.1.1	Comments on the draft Contract	27
7.1.2	Comments on the draft Letter of Intent	27
7.2	MES	29
7.2.1	Comments on the draft Contract	29

7.2.2	Comments on the draft Letter of Intent	31
8.	Summary and Recommendation	33
8.1	Technical	33
8.2	Management	33
8.3	Financial	34
8.4	Legal	34
8.5	Summary	35
8.6	Recommendation	37

## 1. Background

The States issued in July 2002 an Invitation to Tender for the Guernsey Energy from Waste plant. Tender clarification meetings were held in October 2002 and two Tenderers returned their Tenders on 24 January 2003. Tender clarification meetings were held in February 2003 to discuss the initial findings and preliminary results of the initial Tender evaluation. As a result of these meetings it was resolved (a) that the Tender prices were unacceptably high, (b) that the costs of building a plant to a sophisticated architectural level were too high and, (c) that the States would have to accept an increased risk sharing. At the same time, both Tenderers would have to clarify their Tenders in a number of areas. As a result, an amended ITT was issued to the Tenderers on 2 April 2003. Both Tenderers responded to the Amended ITT on 27 May 2003 and meetings were held with each of them in early June 2003 to clarify their responses. Out of the June 2003 meetings came a further round of clarifications resulting in responses to final questions returned to the States by 23/24 June 2003.

It is now the States' intention to identify a Preferred Tenderer and enter into a Letter of Intent (LOI) with such party, which will allow the States and the Preferred Tenderer to develop the current Tender from its current base level to a final level and concurrently with this, apply and procure for the grant of Planning Permission to build the plant and Environmental Licence to operate the plant.

On the basis of the responses given by the two Tenderers to the various ITT documents and requests for further clarifications, this Tender Appraisal Report presents our assessment of the robustness and degree of compliance with the specifications of the two Tenders.

The present Tender Appraisal Report contains the combined comments and assessments of RAMBØLL, PHMcCarthy and Tods Murray.

## 2. Presentation of Tenderers

### 2.1 LURGI

#### 2.1.1 Organisation

LURGI (UK) Ltd. is the proposed contract holder. LURGI (UK) Ltd. will procure the design and delivery of the key mechanical components from their sister company LURGI Energie & Entsorgung.

For the purpose of Civil and Building Works, LURGI propose to sub-contract with Hochtief (UK) Ltd, who, in turn, propose to sub-contract with Mott McDonald Ltd. for architectural design work.

Cyclerval/TIRU is LURGI's proposed operator for the 2-year operation part of the Project.

LURGI (UK) Ltd. and also LURGI Energie & Entsorgung are both wholly owned companies of German company LURGI Lentjes AG, which employs 607 full time equivalents as per 1<sup>st</sup> quarter 2003.

The parent company of LURGI Lentjes AG is the German company 'mg technologies ag', employing a total of 31,785 full time equivalents as per 1<sup>st</sup> quarter 2003.

'mg technologies ag' is rated '5A 2' by Dun & Bradstreet, where '5A' represents a company net worth of +€50M and '2' represents low risk.

LURGI (UK) Ltd. is rated '1A 2' by Dun & Bradstreet, where '1A' represents a company tangible net worth of £0.7-1.5M and '2' represents low risk.

#### 2.1.2 Parent Company Guarantee (PCG)

LURGI (UK) Ltd. have not yet formally confirmed that a PCG will be provided from mg technologies ag (its ultimate parent company) as requested by the States.

### 2.2 MES

#### 2.2.1 Organisation

In the MES Tender CNIM/Spie/Falla have proposed (a) that, instead of contracting with the States/SPC in CNIM's own name, the Contractor will be a Limited Liability Partnership (LLP) formed under the United Kingdom's Limited Liability Partnerships Act 2000 (with the initial members of the LLP being CNIM, Spie Batignolles and RG Falla) and (b) that the LLP would then sub-contract with



CNIM for the Process Work and with a Spie/Falla joint venture company for the Civil Works.

A key feature of LLPs is that the liability of the members of the LLP is limited to the amount of capital they contribute to it (usually just a nominal sum) and, in the UK, many traditional partnerships (such as law firms and accountants) are actively converting to LLP status solely in order to limit their liability. There also are taxation treatment benefits for LLP members.

**Questions:** The key questions to be answered in relation to the LLP proposal are:

- Q1:** Why is an LLP being proposed by the Tenderer for this turnkey contract?
- Q2:** Are there any disadvantages to the States/SPC of an LLP being the Contractor?
- Q3:** Are CNIM prepared to contract with the States/SPC in their own name (as envisaged in the ITT) if an LLP proposal is not acceptable to the States/SPC?

**Answers:** From the evidence so far presented by CNIM and the information gleaned at the tender meeting with CNIM, Spie Batignolles and RG Falla on 11 June 2003, the answers to the above questions would appear to be as follows:

- A1:** Unlike LURGI, CNIM have made a policy decision to avoid (wherever possible) assuming sole responsibility for turnkey projects and in particular CNIM prefers to avoid liability (a) for Civils Works (n.b. the island location and Longue Hougue's civil engineering challenges are likely to have shaped some of CNIM's thinking on this) and (b) for the management of interfaces between sub-contractors. The LLP structure is intended to implement this policy change and seeks to achieve this by pigeon-holing the design and construction responsibilities of the individual LLP members (see also paragraph 2.2.2 below) and limiting their personal liability by utilising the legal protections afforded by the LLP. The marketplace (i.e. the willingness of clients to accept CNIM's LLP proposal) will determine whether CNIM's policy change is successful, but so long as their competitors are not suggesting LLPs we feel that it will increase the attractiveness of their competitors' tenders over those of CNIM for turnkey projects. At the tender meeting on 11 June 2003, CNIM stated that they were already using the LLP structure in an incinerator project in Sheffield although we have ascertained firstly that the LLP is merely a sub-contractor to the main Integrated Waste Management Operator, with whom CNIM have an well established trading relationship, (rather than the procuring UK Local Authority) and that the contractual arrangements between the proposed LLP and the

Integrated Waste Management Operator have not yet been fully finalised. We consider that the LLP proposal is contrary to the turnkey objective of the States, which is to select a substantial, experienced preferred Tenderer (being an existing major engineering company possessing a demonstrable track record, assets and financial standing) who can be entrusted with sole responsibility for successfully delivering this strategically vital Project (and who will select its sub-contractors and suppliers with great care in the knowledge that it is contractually responsible for them).

- A2:** We can see no advantages (and many disadvantages) to the States/SPC of proceeding with the proposed LLP structure. Given the nature of process engineering projects (and Energy-from-Waste projects in particular), the States' preference has been (and remains) to enter into a turnkey contract with the optimum Tenderer in order to (a) pass the risk and responsibility for delivering the Project to a skilled and experienced process engineering contractor (for which the States is prepared to pay a premium) and (b) create a single point of responsibility for the Project, rather than for the States to be forced to take on the uncertainties, risks and responsibilities of a "hands-on" day-to-day Management Contracting-type role for what is a highly complex and unfamiliar project. Having regard to this, a consequence of the proposed LLP structure would be that the States would (i) necessarily become embroiled in apportioning responsibility/blame to individual LLP members (e.g. for delays, defects, failures, omissions, damages etc), (ii) require to be involved in resolving disputes between and among the individual LLP members and (iii) require to pay each of the LLP members separately.

Therefore, it could be argued that MES's proposed LLP structure creates a Management Contracting arrangement whilst retaining the outward appearance of a turnkey contract.

Each of the Tenderers for this Project have pre-qualified on the basis on the financial, technical and commercial standing and suitability of their own companies to be the main Contractor. An LLP is a legal entity, which is wholly separate and distinct from its members (who of course can change at any time) and must be viewed as such. CNIM have always been the leading party in their bidding consortium and, until 27 May 2003, there had been no suggestion that the Contractor would be an LLP other than a statement in their original Management Proposal that CNIM, SPIE and RG Falla were considering setting up a "special purpose vehicle" for the Project (without further clarification). At the June tender meeting CNIM were advised that the States needed to know whether CNIM were prepared to act as the main Contractor (and any price

implications of this) in order to create a “level playing field” on which the two tenders could be properly compared. Regrettably, to date, CNIM have not offered an alternative to their LLP proposal.

**A3:** At the tender meeting on 11 June 2003, the project team made it clear to CNIM/Spie/Falla that the LLP was not an attractive option and that the States’ preference was for the LLP proposal to be dropped in favour of CNIM assuming the role of main Contractor. CNIM’s representative suggested that their price would increase ‘significantly’ with this option as CNIM would wish to add a margin onto the prices of their consortium members. CNIM were asked to re-consider their price on this basis and respond to the States by 23 June 2003. However, as stated above, they have not done so.

The level of reliance that can be placed on the following information will depend on whether or not CNIM/Spie/Falla (or any of them) is named as the main Contractor instead of the proposed LLP.

CNIM S.A. employs a total of 2,457 (2001 figure) staff generating a €440M operating revenue (2001). Profits in 2001 were €15.6M. CNIM S.A. fully owns the British MES Environmental, MES SELCHP and LAB.

CNIM S.A.’s Dun & Bradstreet rating is ‘5A 1’, where ‘5A’ represents a financial strength of +€50M and ‘1’ minimal risk.

Spie Falla Ltd. is a Guernsey registered company with Spie Batignolles and RG Falla as its shareholders. This joint venture company has only just been established and accordingly the financial strength of the new Spie Falla Ltd. is as yet unknown.

#### 2.2.2 Parent Company Guarantee (PCG)

The MES consortium’s letter to the States of 24 June 2003 states the following:-

*“we are proposing that the financial and/or parental warranties/guarantees are provided by the members (of the LLP) directly to the client for the scope and the value of the works that each member is responsible for under its Sub-Contract with the LLP”*

This proposal would therefore present the States with a number of considerable (and unwanted) problems including (a) that as the States/SPC will have no control over the terms of the members Sub-Contracts with the LLP, the value of any such financial and/or parental warranties/guarantees cannot be determined or relied upon (n.b. the Sub-Contracts would not be in the same terms as the main Contract and would be likely to exclude and/or greatly limit the liability of the sub-contracting members to the LLP) and (b) in order for the financial and/or parental

warranties/guarantees to be claimed against, the States would need to establish (via the LLP) which Sub-Contractor caused the breach or default (or their respective shares in the breach or default if several Sub-Contractors contributed to the breach or default) before being able to claim against only those financial and/or parental warranties/guarantees that are applicable to the defaulting Sub-Contractor (and the extent of the States' recovery would be limited by the exclusions and/or limitations of liability contained in the relevant Sub-Contract).

The ITT envisages that the Contractor's ultimate parent company will guarantee all of the obligations of the Contractor. However, if CNIM were appointed as the Contractor, a parent company guarantee would not be appropriate (given that CNIM S.A. has no parent company). However, the possibility that one of its main shareholders, namely Martin GmbH, could grant a guarantee cannot be explored until CNIM confirm that they would be willing to contract directly with the States/SPC.

## 2.3 Discussion

From the responses received to date, LURGI meet the overall requirement of accepting the key principles of the Contract and accepting the turnkey role. The proposed organisation is clear and in accordance with the intentions of the ITT.

As stated above, MES (CNIM) have proposed that an LLP be the Contractor, which deviates from the intentions of the ITT. The LLP proposal has not been presented to Guernsey's politicians and, as the proposed LLP does not yet exist (and would be an entirely separate legal entity from CNIM), the financial standing of CNIM, Spie Batignolles and RG Falla cannot be applied to the LLP (in respect of which no financial information can or will exist at present).

That said, the Dun & Bradstreet ratings of the two main companies supporting the Tenderers (CNIM and LURGI) are almost the same, albeit CNIM has obtained a slightly better risk score.

RAMBØLL would recommend to the States that a proper analysis of the financial strength of the Preferred Bidder and its financial back-up is carried out by a recognised firm of financial advisors.

The undertaking of further financial checks need not delay the entering into of the Letter of Intent with the Preferred Tenderer as the coming into effect of the Letter of Intent can be made to be conditional on the completion of such checks to the satisfaction of the States. However, we would recommend that the analysis be completed by 11 July 2003 (i.e. before the Billet is published).

### 3. Tender Evaluation Criteria

In the July 2002 ITT, a two-stage Tender Evaluation Model was presented to the Tenderers. The Model firstly required the Tenderers to pass an initial evaluation based on compliance with technical, management and financial requirements. None of the January 2003 Tenders passed stage 1 and so no Tenders were assessed against the stage 2 evaluations, which was a relatively simple score-based evaluation model.

In the April 2003 ITT, the Tender Evaluation Criteria were revised and formulated as follows:

“The Client has confirmed his priority in terms of balancing Capital costs against operational costs. The Client is looking for a sustainable solution to the island’s waste problems and a solution, which will prioritise minimising the Plant Lifetime NPV. This is in line with the previous instruction given.

Each of the Amended Proposals will be evaluated on the basis of (a) the capital cost elements, (b) the operational cost elements, (c) any qualifications to these and previous instructions, (d) the Plant Lifetime NPV and (e) robustness and successful track record of proposed technical solution.”

It is those evaluation criteria, which have been used in this report.

## 4. Technical Proposal

### 4.1 LURGI

LURGI technical proposal is based on the following key features:

- LURGI's own incinerator/furnace concept with roller grate technology.
- Tail-end type boiler with three empty passes prior to the horizontal convection part of the boiler.
- Wet flue gas treatment system with acid ash washing.
- Curved roof Architectural Concept prepared by Mott McDonald Ltd
- Four meter deep bunker with an option to increase to eight meters

Broadly speaking, LURGI's Technical Proposal complies with the main requirements set out in the various ITT documents. RAMBØLL can confirm that the proposed technology generally is well proven and that the proposed solution appears to have incorporated sufficient flexibility to allow for fluctuations in waste characteristics and waste supply.

During the Initial Period there will be a requirement to work further with the design of the plant prior to freezing it. The time allocated to this in the Letter of Intent appears to be adequate.

### 4.2 MES

MES's technical proposal is based on the following key features:

- Incinerator/furnace concept with Martin grate technology.
- Vertical bi-drum type CNIM boiler with platen superheaters in the second vertical pass. The proposed four-pass boiler is similar to the boiler installed in Stoke-on-Trent.
- Wet flue gas treatment system with acid ash washing
- Architectural Concept prepared by architectural firm Architrav
- 13 meter deep bunker

MES has proposed a €700,000 saving plus a further saving in Civil Works Element and administration costs for removing the Catalytic Ammonia Stripping system. It is our assessment that this should not be removed and in any event a similar piece of equipment is included in LURGI's Tender. For the purpose of comparing the two Tenders we shall therefore disregard this proposal.

Broadly speaking, MES's Technical Proposal complies with the main requirements set out in the various ITT documents. RAMBØLL can confirm that the proposed technology generally is well proven and that the proposed solution appears to have incorporated sufficient flexibility to allow for fluctuations in waste characteristics and waste supply.

During the Initial Period there will be a requirement to work further with the design of the plant prior to freezing it. The time allocated to this in the Letter of Intent appears to be adequate.

#### 4.3 Technical discussion

##### 4.3.1 Reception facilities

#### LURGI

The proposal for the tipping hall provides for three unloading bays. One of the unloading bays will allow for non-tipper lorries. The bunker has a capacity of 3,500 m<sup>3</sup>. It is possible to shut off each of the bays.

The proposed bunker is 4 meters deep. It is RAMBØLL's view that such a shallow bunker will not enable efficient bunker management and we do not believe it is in accordance with Good Engineering and Operating Practices. A shallow bunker will require the crane operator to constantly remove waste from the tipping area and if he fails to do so – the waste will build up and potentially end at the reception hall floor. The crane operator should concentrate on mixing the waste and hence generate a homogenous fuel for the plant and this is best done in a deeper bunker.

LURGI has given an option price for making the bunker 8 meters deeper at an additional cost of £565,600, which is recommended to be included in the design. The proposed bunker is approximately 12 m wide and 32 m long. It is recognised that if the bunker shall be 8 meters deep and have the same footprint then obviously, the capacity will be much larger. In the Capital costs capitalisation we have therefore included only two thirds of the proposed extra costs.

Bulky items can be discharged directly in the bunker. The waste crane will take the items to the shredder, which is located at the hopper deck.

#### MES

MES have proposed four unloading bays. One of the unloading bays will allow for non-tipper lorries. The fourth bay is reserved for a shredder (proposed as option, but has been included in the tender evaluation).

Their proposed bunker has a capacity of 3,500 m<sup>3</sup>. The bunker has a depth of more than 13 m, a width of approximately 12 m and a length of approximately 18 m. This is considered sufficient for performing a proper mixing of the waste.

#### Evaluation of Reception and Storage Facilities

- Bunker design of MES is given preference for the base proposal comparison. LURGI has proposed and priced an alternative bunker design, which will level out any differences and it will require review of the bunker footprint.
- Shredder design and location of shredder at hopper deck for LURGI is given preference compared to MES with a shredder at one of the unloading bays. Bulky items are handled more easily and safer in the proposed LURGI solution.
- In both cases the waste cranes will feed the baler. The bunker can therefore be used as a buffer. Both balers are movable for off-site use.
- Both Tenderers propose two waste cranes with a spare grab
- The reception hall proposed by MES is 24 meters long. The height does not appear from the drawings included in the tender. The reception hall proposed by LURGI is 16 meters long and provides the required free height of 9 meters. Both solutions provide unloading under dry conditions.
- Both reception halls are based on the entrance being parallel to the incineration line limiting the space available for turning vehicles.
- The weighbridge systems are only described to a limited extent in the proposals. The location of the weighbridges has not been included in the layout drawings. The entrance facilities and separation of traffic for trucks and domestic traffic should therefore be discussed further.

Item	MES	LURGI
Reception hall	Equal	Equal
Bunker design	Equal	Equal*
Shredder	-	+
Baler	Equal	Equal
Waste cranes	Equal	Equal
Spot check inspection	Equal	Equal
Waste oil incineration	Equal	Equal
Reception facilities etc.	Equal	Equal

\* Based on LURGI's alternative bunker design.

#### 4.3.2 Incinerator technology

##### LURGI

##### *Grate*

LURGI has proposed a roller grate type of LURGI's own design.

LURGI's proposed roller grate system consists of 6 cylindrical rollers arranged in series at an angle of 20°.



The rollers rotate at different controllable speeds and transport/cascade the waste from the waste inlet to the outlet – the slag chute and the succeeding wet slag discharger. The proposed roller grate is well proven and performs very well.

Some characteristics of the roller grate are among others a great flexibility to handle fluctuations in waste compositions, heating values and waste flow.

The roller grate is in general also characterized as a robust, reliable system including good burnout of gaseous and solid species – resulting in high quality of the bottom ash/slag.

It appears from the grate-data given by LURGI that the width of the grate is sufficient with a good margin to operation at all load points in the capacity/firing diagram. Thermal and mechanical loads on the grate are moderate at any load point in the Capacity Diagram.

*Waste Feed Hopper and Feed Chute, Ramfeeder, Wet Slag, Slag Discharger, Wet Chain Conveyor to Grate Riddling etc.*

The above-mentioned auxiliary main components/systems are, to a great extent LURGI's own standard design, well proven and reputable.

#### *Combustion Air Systems*

Primary air is supplied separately to each of the six grate rollers. Secondary air is injected to the furnace through nozzles to secure good turbulence and complete burnout of the flue gases.

The proposed systems are of LURGI's standard design and dimensioned for operation in all load points in the Capacity Diagram.

#### *Start-up and Support Burners*

Burners are installed to fulfil the requirements in the EU Waste Incineration Directive including the requirement concerning retention time of the flue gasses (Temperature 850 °C, min 2 seconds).

#### *Precautions against boiler corrosion*

LURGI has in the proposed design configuration of the boiler made an attempt to limit/minimize the risk for corrosion of boiler walls and super heater tubes.

In this respect it should be mentioned that an extension of the protection of the boiler walls in the 1<sup>st</sup> pass should be considered if LURGI should be selected as the Preferred Tenderer for further negotiations.

Apart from this remark the boiler design is considered conservative and optimised to a great extend to avoid, minimize to occurrence of corrosion.

## MES

### *Grate*

MES have proposed MARTIN's own designed "reverse acting" grate type. MARTIN's "reverse acting" grate is a well-proved, well-experienced grate implemented in many plants worldwide and with good operational results. MARTIN's grate operates effectively on a wide range of waste types, waste compositions, and waste heating values.

The grate secures a high quality of burnout of gaseous and solids and fulfils even strict requirements.

Operational experiences also show a long lifetime of the grate bars and grate components. It appears from the data forwarded by MES that the specific grate for the Guernsey Plant is dimensioned for moderate thermal and mechanical loads with a sufficient margin to all load points on the capacity diagram and to MARTIN's own design guidelines. The grate for Guernsey consists of two tracks arranged in an angle of 26°.

### *Waste Feed Hopper, Feed Chute, Water Ramfeeder, Wet Slag Discharger, Grate Riddlings Pneumatic Conveyor System*

The above-mentioned auxiliary main components/systems are, to a great extent, MES' own design, well proven and reputable.

### *Combustion Air System*

The proposed air combustion system is designed and dimensioned specifically for the Guernsey Plant and in accordance to MES' well proven and reliable technique.

### *Start-up and Support Burner*

MES have proposed one burner for the start-up purpose and for the purposes of complying with the EC Directive on flue gas emissions.

## Assessment of LURGI's and MES' Incinerator Systems

The proposed incinerator systems from LURGI and MES are both well-proven, reputable systems and (to a great extent) of the respective companies' own design. Despite essential differences in conceptual design not least concerning the grate design and functioning, both systems are expected to perform very well on the waste types and waste compositions specified for the Guernsey EfW Plant.

RAMBØLL's assessment of the proposed incinerator system is that despite essential differences in design etc. the two proposals are equal from a technical/functional point of view.

### 4.3.3 Boiler

## LURGI

LURGI have proposed a Tail-end type steam boiler with three open/empty vertical passes prior to the horizontal convective pass fitted with evaporator-, superheater-, and economizer tube bundles. The Tail-end boiler type is a well-known concept and operating experiences exists from many plants.

It appears from the comprehensive, detailed boiler data forwarded by LURGI that the specific Tail-end boiler proposed for the Guernsey Plant complies with and fulfils Good Engineering and Operating Practices inrelation to the configuration and dimensioning of this particular type of boiler.

In general the proposed Tail-end boiler also complies with the main requirements set out in the various ITT documents.

## MES

MES have proposed a 4-pass vertical bi-drum boiler of CNIM design.

The 1<sup>st</sup> pass of the boiler is an open, empty radiation pass.

The 2<sup>nd</sup> pass is fitted with platen superheaters.

The 3<sup>rd</sup> pass is a convective pass with vertical evaporator tube bundles connected to the upper and lower boiler drums.

The 4<sup>th</sup> pass is fitted with a section of the economiser.

The last economiser section is located downstream the Electrostatic Precipitator.

It should be mentioned that MES have decided to propose a vertical boiler instead of the originally offered Tail-end boiler. MES refers to the vertical boiler being compact and requiring less space, which has a knock-on effect on the costs of the building envelope.

MES have referred to numerous plants operating with this vertical type of boiler.

MES have recommended that the States contact the Stoke-on-Trent plant for information on their operational experiences with the CNIM boiler (which is of similar type). RAMBØLL therefore made contact with the Stoke-on-Trent plant operator. It appears from the information obtained from the Stoke-on-Trent Plant that a systematic “rolling” plan for the replacement of superheaters is both convenient and necessary. At the Stoke Plant the final superheaters are replaced in planned intervals of two years. The final superheaters in a Tail-end boiler normally have a considerably longer lifetime.

*Protective precautions against boiler corrosion*

MES have proposed protection of some parts of the boiler walls by lining with refractory/tiles and inconel cladding, some shielding of superheater tubes etc.

In their Tender, MES have stated (and defined) guarantees concerning the lifetime of boiler walls and platen superheaters (as was requested for in the amended ITT). However, MES do not guarantee a minimum lifetime 5 years for the final platen superheaters. MES will guarantee a minimum lifetime of 2.5 years for the platen superheaters. These guarantees appear to be in line with the information obtained from the Stoke-on-Trent Plant.

Assessment of LURGI's and MES' Boiler Systems

The boiler proposals from LURGI and MES are characterised by essential differences in design, configuration and also by physical size as the proposed vertical boiler from MES is considerably more compact than the tail-end boiler proposed by LURGI.

It appears from each Tenderer's forwarded comprehensive boiler data that the boiler heating surfaces are significantly greater in the tail-end boiler from LURGI than in the vertical boiler from MES.

This applies to the evaporator boiler heating surfaces and not least the heating surface area of the superheater, which is approx. three times greater than those of the vertical boiler.

RAMBØLL is aware that the reason for this great difference in superheater heating surface is primarily caused by the special platen radiation superheaters located in high gas temperature in the second pass of the vertical boiler.

Apart from the above-mentioned conceptual differences between the two boiler types, it appears from the boiler performance data that the steam production is at the same level.

Focusing on maintenance, including the replacement of superheaters due to corrosion, it appears from the lifetime guarantees stated by MES and the information obtained from the Stoke-on-Trent plant that replacement must be expected to occur more often in the case of the vertical boiler. According to the Stoke-on-Trent plant a "rolling program" is needed.

RAMBØLL's experience of the lifetime of superheaters in a tail-end boiler confirms the generally acknowledged fact that the lifetime of the boiler part – particularly the superheater section is considerably longer than the guaranteed

lifetime of the platen superheaters of the proposed vertical boiler for the Guernsey plant.

Assuming a reasonable “rolling” maintenance and replacement programme, a high rate of availability and acceptable travelling times can be achieved, also with the proposed vertical boiler.

In conclusion, RAMBØLL would, however, have a preference for the tail-end boiler.

#### 4.3.4 Energy recovery

The following expected/guaranteed values have been given for the electricity production:

Supplier	LP1 <sub>sott</sub>	LP1 <sub>eott</sub>
<b>MES</b>		
Gross output	6.662	6.662
Parasitic load	1.425	1.425
Export (Guarantee)	5.237	5.237
<b>LURGI</b>		
Gross output	6.367	6.236
Parasitic load	1.761	1.765
Export (Guarantee)	4.510	4.375

sott : start of travelling time

eott : end of travelling time

We would add the following comments to the table:

- MES’s Guaranteed electricity export is 727 kW higher than that of LURGI’s
- Whereas MES have proposed to guarantee the arithmetic difference between the calculated gross output and the calculated parasitic load, LURGI has incorporated a (100 kW) margin and further stated that it is subject to final confirmation.
- In MES’s most recent response, they have included a statement “the parasitic load of the plant is considered as being due to the incineration process only, that is to say that only pieces of equipment at once necessary for the process and continuously working will be taken into account”. Such statement could indicate that parasitic loads required for building services is excluded from the guaranteed figure, but it is not clear. This should be further discussed, should the States decide to identify MES as the Preferred Tenderer.

- LURGI takes out part of the steam (10 bar, 255 °C) from the turbine to reheat the flue gas upstream the bag house filter from 119 °C to 130 °C. The reheating will require approximately 0.47 MW of heat. The purpose of the proposed reheating is to raise the temperature to avoid condensation in the bag-house filter and at the same time reducing the plume visibility. LURGI notes that the operating temperature of the bag house filter may be reduced to a lower level after the commissioning phase thereby reducing the steam consumption. In addition LURGI uses steam to strip out the ammonia in the ammonia stripper. The consumption of the stripper plant is approximately 310 kW. MES's proposal does not have similar arrangement. In case no reheating is applied the electricity production of LURGI's proposal would increase by approximately 100 kW (160 kW if ammonia stripper were to be excluded).

### Summary

- On the face of it, there is a significant difference in the guaranteed net electricity productions given by MES and LURGI. LURGI have applied a 100 kW margin, whereas MES have no margin between expected power production and parasitic load.
- The gross electrical output is higher for the MES proposal. We believe this is mainly due to the fact that LURGI's proposal uses steam for the reheating of flue gasses upstream of the bag house filter for obtaining the right operating temperature and (as a side effect) to reduce the plume visibility.
- For the purpose of calculating expected power sales, we will use in the case of MES 5.237 MW and in the case of LURGI 4.51 MW. It should be stated though that the genuine difference between those figures probably is less.

#### 4.3.5 Flue Gas Treatment

It is RAMBØLL's assessment that both of the proposed systems will be able to meet the European Waste Incineration Directive air emission limit values with a good margin.

The proposed systems differ in various respects. Most noteworthy is that MES's proposal eliminates the NH<sub>3</sub> slip from the SNCR process already in the flue gas treatment system (see separate entry about NH<sub>3</sub> removal below), which has a definite impact on the boiler design and ESP sizing.

LURGI's proposal removes SO<sub>2</sub> with NaOH under formation of a NaSO<sub>4</sub> solution most of which eventually is discharged with the treated wastewater. MES uses CaCO<sub>3</sub>, which results in the formation of an additional quantity of solid residue consisting of gypsum. The extra cost for disposing of the additional amounts of

solid residue is less than the extra costs associated with using NaOH and hence, for an overall point of view, LURGI's solution at current market prices is significantly more expensive than the MES solution. This is reflected in the Operating Fee.

The consumables are priced at £8.35 / £19.01 per ton of Waste incinerated and hence the annual difference is in the order of £640,000. This is significant when compared to the total annual costs of operating the plant (£3-4M) and, in addition, it is a genuine difference.

A third distinction is that LURGI's proposal removes the dioxins in a bag house filter, which requires re-heating of the flue gas after the scrubber. Most of the re-heat is made in a gas/gas heat exchanger, but LURGI have also included an additional steam re-heater, cf. previous sections, with a consequent parasitic loss of steam from the boiler. MES, on the other hand, removes the dioxins in a wet scrubbing process without any re-heat. This difference should imply a higher overall thermal efficiency of the MES system and it is one of the reasons for the slightly higher power production guaranteed by MES.

#### 4.3.6 Plume Visibility

Because of the different ways of removing the dioxins, LURGI discharges the flue gas at a temperature of 130 °C, which will make the plume invisible in significant part of the year.

MES discharges it at 60 °C, saturated with water vapor and it will be visible whenever operating. MES could, of course, be asked to re-heat the gas to 130 °C, but clearly this would have an adverse effect on both capital and operating costs.

Therefore, if plume visibility is a genuine issue, LURGI have proposed the better solution.

#### 4.3.7 Wastewater Treatment

Both of the systems proposed are expected to ensure that the water emission limit values will be met. Both Tenderers are concerned about the NH<sub>3</sub> slip from the SNCR process, which - they state, if not removed - may make the subsequent precipitation of heavy metals more difficult. As stated above, MES's solution already removes the NH<sub>3</sub> in the flue gas treatment system, while LURGI have added a stripper in the wastewater treatment system.

#### 4.3.8 NH<sub>3</sub> removal

As there are no air or water emission limit values for NH<sub>3</sub>, it may be worthwhile considering whether it is in fact necessary to remove the NH<sub>3</sub> with the consequent capital and operating costs. However, both Tenderers strongly recommend that their NH<sub>3</sub> removal processes be kept.

We would recommend continuing discussing this issue with the Preferred Tenderer during the Initial Period.

#### 4.3.9 Residue Handling

The systems proposed both comply with the residue handling requirements specified in the Employer's Works Requirements. Both Tenderers propose an acid ash washing system integrated into the wastewater treatment system and - in the case of MES - also in the flue gas treatment system. The gypsum from the MES SO<sub>2</sub> removal process ends up in the ash; consequently, MES must be expected to produce a little more treated ash for landfill disposal at Longue Hougue than LURGI.

LURGI's proposal removes the Mercury (Hg) from the acid wastewater before the acid extraction and has - thus - a separate residue stream: activated carbon with Hg (and dioxins).

RAMBØLL assumes that this stream can be mixed with the hydroxide sludge from the wastewater treatment and thus be landfilled. MES's proposal does not remove the Hg. Undoubtedly, most of it will end up in the hydroxide sludge, but it cannot be precluded that some Hg may adhere to unburned carbon particles in the ash and hence follow the treated ash to the Longue Hougue.

None of the Tenderers are able to provide *guarantees* as to the leaching behaviour of the treated residues, but LURGI *expects* to fulfill the levels asked for, tested as specified. MES's proposal refers to another different test method identical to that established at the Fribourg plant.

The lack of firm guarantees on offer should be viewed in context with the fact that - after all - there is limited experience available with ash washing.

On the basis of the responses received we are not able to rank one of the Tenderers ahead of the other for their treatment of Residues.

#### 4.3.10 Architectural Solution

The Amended ITT allowed the Tenderers to deviate from the original Architectural Scheme as prepared by S'PACE. Both Tenderers have done so and submitted their own architectural solutions. Following the clarification meetings, Lurgi have, as requested submitted text outlining their architectural approach together with coloured drawings and perspectives. LURGI have also submitted an additional cost of £82,300 if aluminium wall cladding is used.

In terms of materials and workmanship and compliance with the Employer's Works Requirements regarding durability, both solutions are broadly equivalent. In their answers to the clarification questions, MES (CNIM) have been more 'emphatic' than LURGI regarding compliance with the Employer's Works Requirements Civil Works requirements (refer to 4.3.11).



Neither Tenderer consulted with the Planners or the IDC as part of developing their architectural solutions.

Both Tenderers are of the view that this consultation will happen during the Initial Period. Consequently, there is a risk going forward with either Tenderer in that failure to 'sell' their architectural solution to the IDC during the Initial Period may result in having to change their design and increase costs.

At this stage, the States will need to take account of their own subjective view on the relative merits of the proposed architectural schemes of both Tenderers.

#### 4.3.11 Civil Works

The Civil Works questions for both Tenderers were presented in order to clarify the following:

- 1) Specific technical questions that could be answered definitively. e.g. design life of materials, treatment of structural steelwork, handling of drainage and disposal of process waters, contaminated water, foul sewage and surface water etc.
- 2) The 'Robustness' of their tender offers in relation to the site Fill materials viz temporary works sub-structures, foundations and the construction of pavements and services. The purpose of the questions was to establish a view as to what degree the Tenderers anticipated that additional costs would be incurred as a result of the site investigations into the Fill materials, which will take place during the Initial Period.
- 3) The degree to which the Tender offer will comply with the Employer's Works Requirements for Civil Works.

In relation to 1) above both Tenderers responded clearly and precisely to the questions asked. Outstanding issues to be considered as a result of these questions are as follows:

#### **LURGI**

- Disposal of temporary foul sewage flows
- Failure to get approval for on site accommodation of personnel
- Confirm 40 dBA Leq at 20m will be complied with and is included in the Base Contract Price
- No visual impact screening on top of the breakwater included for in the Base Contract Price
- Clarify exposure of cladding purlin support system,
- Piles not permanently cased
- Clarify breakdown of the quoted additional cost of £1.65m to deal with Fill washout through the Breakwater (if required)

**MES (CNIM)**

- No swipe card access system for visitors and staff is included in the offer.
- Noise limit 40 dBA Leq at 20 meters does not appear to be met.
- 3000m<sup>3</sup> of 'selected' backfill to be supplied the States to make up levels following Fill compaction.
- Are costs for doing works as described in the clarification question answers to prevent washout of Fill materials included in the Base Contract Price?
- No visual impact screening on top of breakwater included for the Base Contract Base.

In relation to 2) above our view is that CNIM have been more affirmative as to the robustness of their offer in responding to this question. That said, both Tenderers do not appear to have excluded significant elements. The outstanding main issue is the degree to which they have made cost allowances for stabilisation/consolidation of the Fill materials and the degree to which these may prove inadequate during the Initial Period.

In relation to 3) above the Tenderers responses were as follows:

**Question:**

'Please confirm that the tender offer includes for compliance with all the requirements of Employer's Works Requirements Section 4 Civil Works except where such requirements are superceded by the Amended ITT in which case, the amended ITT requirements would apply and be included'.

**LURGI Answer:**

'The emphasis of the amended ITT was to reduce cost and result in a viable project. Consequently the requirements of the EWR have been restricted by this ethos'.

**MES (CNIM) Answer:**

'Our proposal is based on the Employer's Works Requirements and the amended ITT, taking into account the current answers to your questions'.

Our view is that the LURGI answer is less robust and the implications should be clarified with them.

## 5. Management Proposal

The Management Proposal is supposed to demonstrate the Tenderers capabilities with the following areas:

- Tenderers organisation
- Management of Public Relations
- Management of Health, Safety and Welfare
- Management of Quality Assurance
- Staff, recruitment and training
- Facility Management

Regarding each Tenderer's organisation, refer to section 2 of this report.

In relation to the remaining issues, both Tenderers have confirmed satisfactorily that (a) they understand the importance of Public Relations, (b) that they understand Health, Safety and Welfare requirements including the implications of working to CDM regulations, (c) that they operate in accordance with appropriate ISO standards for Quality Management and (d) that they would both propose that the Plant can be operated by a staff of 25 people.

If MES's LLP proposal was dropped, the two Management Proposals would otherwise be assessed to be equal and satisfactory.

## 6. Financial Proposal

The Financial Proposals comprise the following figures:

Term	Explanation
Maximum Initial Period Fee	The Preferred Tenderer's fee for providing services during the 9-month, which will result the Planning Permission and Environmental Licence, will be obtained.
Base Contract Price	The quoted turnkey price for building and commissioning the plant. This price may change during the Initial Period.
Testing Period Fee	A flat rate of £50 per tonne of waste for treating waste during the commissioning period.
Annual Fixed Fee	An annual fee to cover fixed costs for having the plant ready to be operated.
Operating Fee	A tonnage related fee to cover variable costs for receiving, storing and incinerating Waste and for transporting Final Residues to their Delivery Points.

Further to the defined term items in the Financial Proposals, Tenderers have been asked to submit optional extra prices for the following items:

- Strategic Spare Parts
- Payment Bond

The States has agreed to the Tenderers request to accept the exchange rate risks for any changes in the exchange rate between the Euro and the Pound. The two Tenderers have submitted their Financial Proposals in a mix of € and £ and the figures in this report assumes an exchange rate of €1=£0.725 On this basis, all figures have been converted into one currency - £ Sterling.

In the case of LURGI 57 % of the Base Contract Price is € whereas the same figure in the case of MES is 68 %.

It should also be stated that all prices other than the Maximum Initial Period Fee are given in 1<sup>st</sup> July 2003 level on the basis that future payments would be indexed from that date.

Based on the Tender returns we have calculated the following financial values:

- **Base Contract Price**, which is the sum presented in the Tenderers' latest responses to our clarifications.
- **Sub-total A**, which is the sum of the Base Contract Price and the Maximum Initial Period Fee and hence should be the best estimate for the total cost from the signature of the LOI and up to Take-Over Date
- **Sub-total B**, which includes our assessment of any differences between the two Tenders. It should be emphasized that it only includes those issues, which we can assess on the given basis.
- **Price for operating the Plant in 20 years**, which is a calculated indicative NPV price for operating the plant. In this calculation it has been assumed that there is no difference in the Annual Fixed Fee, whereas we have used the quoted figures for the Operating Fee element.

The Base Contract Price and the Sub-total A are straight forward and they have been taken directly from the Pricing Schedules.

In Sub-total B, we have assessed and valued any differences between the two Tenders to ensure that we are in fact comparing like for like, as best we can on the current basis. The details are not presented in this report but below we have listed those elements, which we have included in our calculation of the Cap-ex capitalisation:

MES	LURGI
<ul style="list-style-type: none"> <li>• Insurance element taken out</li> <li>• Additional costs for shredder</li> <li>• Additional costs for Baling</li> <li>• Additional costs for Vacuum Cleaning System</li> <li>• Initial Period Fee not spent will be transferred to Contract Price. 15% of the Maximum Initial Period Fee has been added.</li> <li>• Optional price for Strategic Spare Parts</li> </ul>	<ul style="list-style-type: none"> <li>• Additional costs for deepening the bunker (2/3 of the option)</li> <li>• Additional costs for aluminium cladding on walls</li> </ul>

For LURGI, we were unable to take the insurance element out, as we do not have a breakdown of their Base Contract Price build-up. This is an issue, which should be further discussed with LURGI, should they be selected as Preferred Tenderer.

The DB2O Price is the sum of the 'Sub-total B' and the price of two years Annual Fixed Fees plus two years Operating Fee assuming that 60,000 tonnes of Waste is delivered to the plant every year. The value of the power production is calculated using 6,667 hours of operation per annum in each of the two first years and assuming a power sales price of 2.2 p/kWh.

## 6.1 LURGI

The following issues are relevant in relation to establishing a more complete picture of the robustness of LURGI's Financial Proposal, as it currently exists:

- No comments to the draft Contract other than that LURGI would want to finalise it during the (first month of the) Initial Period. As stated elsewhere in this report, this situation makes it virtually impossible to assess the value (and impact) of any qualifications that LURGI may have (but which have not so far been disclosed).
- (Comments and Questions, section 3, item 6) Additional £565,600 for providing an 8 meter deep bunker. This is required (and provided by MES).
- (Comments and Questions, section 16, item 5) Additional £82,300 for providing aluminium wall claddings and flashings. This is required and will have to be added to the Base Contract Price.
- Strategic Spare Parts are included in the Base Contract Price.
- Hourly rates for German engineers for providing assistance are considered to be unusually high. All engineers are to be charged at the same flat rate of €175 (£120) per hour regardless of experience. Even though we have asked for a breakdown of assumed engineering input during the Initial Period, LURGI have not provided the States with this breakdown.
- LURGI have not yet confirmed that they can/will provide Payment Bonds.
- The quoted price for operating the Plant is unexpectedly high. This is primarily due to some very high figures for personnel costs and we would recommend this to be further discussed should LURGI be selected as the Preferred Bidder.
- LURGI have responded in a less clear manner to the questions raised in relation to the Civil Works / Building Works, cf. section 4.3.11.

## 6.2 MES

The following issues are relevant in relation to establishing a more complete picture of the robustness of MES's Financial Proposal, as it currently exists:

- (LOI, para 5.8) Any part of the Maximum Initial Period Fee, which is not spent during the Initial Period, shall be transferred to the Base Contract Price. Further, the Maximum Initial Period Fee is not a fixed Fee but it can be increased. No such statement has been made by LURGI and to compare equally, we have added 15% of the proposed Maximum Initial Period Fee to MES's Cap-ex capitalisation.
- (Article 5) MES do not accept a limitation of the indexation of Milestone Payments as proposed at 6% p.a.
- (Article 6.1.2) MES will provide a Surety Bond rather than the Performance Bond currently proposed.

- (Article 6.1.3) MES do not wish to provide a Payment Bond (which, in any case, would be virtually impossible for their proposed LLP to obtain)
- (MES comments to Contract, item 14) MES will not provide a guarantee for M&E Elements as requested / revolving guarantee.
- (MES comments to Contract, item 33) MES will discuss Milestone Payments to ensure cash-flow neutral profile. There is no statement confirming that the Base Contract Price is based on the current Milestone Payment schedule.
- LLP Act 2000 approach suggested. If proceeded with, the Contract would require to be adjusted in a considerable number of areas, e.g. the Contract Price will have to be split into Process Works Portion and Civil Works Portion and this will flow through to Appendix 5, the Milestone payment principle.

Price for Strategic Spare Parts is additional €71,315.

### 6.3 Comparison

The table below sets out the summary of the Financial Proposals.

		MES	LURGI
1	Project Management	16.677.084	14.436.125
2	M&E	29.635.476	32.226.253
3	Civil Works	23.004.011	22.609.300
	<b>Base Contract Price</b>	<b>69.316.571</b>	<b>69.271.678</b>
	Maximum Initial Period Fee	2.483.897	2.982.500
	<b>Sub-total A</b>	<b>71.800.468</b>	<b>72.254.178</b>
	Cap-ex capitalisations	1.384.401	459.367
	<b>Sub-total B</b>	<b>73.184.869</b>	<b>72.713.545</b>

	Operating costs year 1 + year 2	6.215.175	8.199.406
	Value of power production	-1.536.187	-1.322.933
	<b>DB2O Price</b>	<b>77.863.857</b>	<b>79.590.018</b>

	Operating costs 20 years	36.646.138	43.747.261
	Value of power production	-10.438.639	-8.989.548
	<b>Price for operating 20 years</b>	<b>26.207.499</b>	<b>34.757.713</b>

The following comments can be added to the table:

- There is no significant difference in Capital costs between MES and LURGI
- Operating costs are lower in the MES Tender compared to the LURGI Tender.

- It should be noted that the calculated NPV for operating the plant should be considered as indicative only and not as accurate figures. It is recognised that there is a difference between the two Tenders as (a) the consumables required in the LURGI process are more expensive than those required for the MES proposal and (b) the power sales potential as per the MES proposal is larger than that of LURGI. On the other hand, (a) it is firmly believed that there will be a difference in maintenance costs for the two boilers and that difference, which would favour the LURGI proposal, has not been fully taken into account in the above indicative operating cost calculations and, of less significance, (b) the calculation is based on guaranteed power sales and MES appear to have no margin included, whereas LURGI have included a margin.

It is of key importance to the overall assessment of the financial strength, robustness and ranking of the Tenders that the following key issues have not been clarified with the latest Tender:

- MES have not given a price, which is based on the current LOI and the current draft Contract. Their price is based on the proposed alternative contractual arrangement (LLP). MES have informed the States during the June Tender clarification meetings that if they were to leave the LLP approach and sign the Contract with CNIM S.A. as the Contractor then their price would increase 'significantly'.
- LURGI have not given us any written statements summarising what their concerns are in relation to the Contract as it is currently drafted. LURGI's legal advisor, Richard Adams has explained to Alan Richards, the States Project Director, that this information would be available by Monday 30 July. It is unlikely that this programme allows for adequate time to assess the comments and establish a considered response, which can be agreed and incorporated into a Contract by the end of next week.
- None of the Tenderers have liaised with the Island Development Committee in relation to their preparation of amended Architectural Concept.



## 7. Legal

### 7.1 LURGI

#### 7.1.1 Comments on the draft Contract

LURGI's amended tender submission of 27 May 2003 contained no additional comments on the draft Contract other than positive statements affirming the contractual/commercial concessions offered by the States in its clarifications of November 2002 and in the Amended ITT (which clarifications are herein referred to as the "Commercial Clarifications"). However, equally, LURGI's amended tender submission did not contain any express confirmation that LURGI had no other comments to make on the Contract. At the tender meeting with LURGI held in Guernsey on 10 June 2003, LURGI were advised that it was the States' intention to enter into the Letter of Intent on the basis that the conditions of Contract would be finalised at the date of signing the Letter of Intent (with the form of Contract being annexed to the Letter of Intent) and that only the "Contract Deliverables" referred to in the Letter of Intent (e.g. the technical and pricing schedules) would be adjusted and agreed with the Preferred Tenderer over the 9 month Initial Period (such that as soon as the Contract Deliverables were agreed the Contract would be entered into). Accordingly, at the tender meeting:

- (a) LURGI were asked to clarify to the States (by 23 June 2003) all of LURGI's outstanding issues (if any) on the draft Contract (in general terms only); and
- (b) LURGI's legal adviser was asked to review the amendments made to the draft Contract by Tods Murray and confirm (by 23 June 2003) whether or not the amendments made to the Contract properly reflected the States' Commercial Clarifications.

Unfortunately, LURGI did not action either of these requests and have only responded on the terms of the draft Letter of Intent.

Accordingly, we harbour a significant concern that LURGI may have a number of undisclosed issues/comments in relation to the Contract that will not become apparent until after LURGI have been selected as the Preferred Tenderer.

#### 7.1.2 Comments on the draft Letter of Intent

We were disappointed by the nature and quantity of amendments made by LURGI's legal adviser to the draft Letter of Intent. However, we believe that a number of their comments arise from misunderstandings and suspect that LURGI did not "filter" their legal adviser's comments before they were sent to the States. That said, there are a number of key issues that would require to be resolved with LURGI before the Letter of Intent could be entered into with them, namely:-

- (a) **finalisation of the conditions of Contract** – LURGI (and MES) have had the draft Contract since the ITT was issued in July 2002 and have had three opportunities to comment in detail on its provisions. Most if not all of the comments made by LURGI to date have been accommodated by the States in its Commercial Clarifications (and reflected in the amended Contract which was issued to LURGI during the Amended Tender process). LURGI are aware of the States’ wish to finalise the conditions of Contract before the Letter of Intent is entered into in order to avoid protracted negotiations over the Contract following the selection of Preferred Tenderer. However, LURGI have amended the Letter of Intent to defer finalisation of the Contract until after the Letter of Intent is entered into. LURGI are aware that this is not acceptable and have been asked to clarify what further comments they wish to make on the Contract before the selection of Preferred Tenderer is made. Unfortunately, such clarification has not yet been provided.
- (b) **process leading up to signing the Contract** – The Letter of Intent lists the “Contract Deliverables” (i.e. the technical and pricing schedules to the Contract) that will require to be developed and agreed over the 9 month Initial Period before the Contract can be entered into. The Letter also sets out the timetable within which the parties will seek to agree the Contract Deliverables and, in the event of disagreement, the Letter of Intent (as originally drafted) entitles either party to refer the difference to an appointed expert for determination in order that the Letter of Intent’s objective (of finalising the Contract) is capable of being achieved within the 9 month Initial Period (without which the Letter of Intent would be rendered ineffectual, i.e. it would become simply an “agreement to agree” which is unenforceable). LURGI have stated that they are not agreeable to this process, although from their comments it would appear that they have misunderstood what is intended. In particular, LURGI have overlooked that the Preferred Tenderer’s Base Contract Price is fixed (as is their specification), such that only the financial impact of technical adjustments made to the specification (by mutual agreement) over the 9-month Initial Period will be subject of debate. If LURGI are selected as Preferred Tenderer we would seek to overcome their objections to this during the Letter of Intent negotiations.
- (c) **establishing the scope of the Initial Period Services** – In their comments LURGI state that they want the States to be more specific as to the nature and extent of the Preferred Tenderer’s design duties over the Initial Period (specifically the nature and quantity of Design Data to be produced). However, as LURGI were made aware, the level and quantity of design required during the Initial Period will largely be determined by IDC, Building Control and the Environmental Regulator and therefore

clarification of this will not be possible before the commencement of the Initial Period. The Letter of Intent entitles the Preferred Tenderer to charge all work done on an hourly basis and requires the States to issue clear instructions to the preferred Tenderer, so we would hope to alleviate LURGI's concerns over any apparent lack of clarity during the Letter of Intent negotiations should they be selected as Preferred Tenderer.

- (d) **confidentiality undertaking** – LURGI have introduced strict confidentiality undertakings into the Letter of Intent. If LURGI are selected as the preferred tenderer, the acceptability of these provisions will require to be reviewed in order to ascertain what level of confidentiality undertaking can be granted by the States in the circumstances and particularly given the need for the States to make disclosures in order to obtain the Necessary Consents.
- (e) **limitation on right to use intellectual property** – In the event of the Contract not being entered into LURGI wish to considerably curtail the States' ability to use the Design Data produced by it during the Initial Period (notwithstanding that the States will have paid for it). The provisions would only apply where the Contract did not proceed and therefore, should LURGI be selected as the Preferred Tenderer, the States will require to consider the extent to which it will require rights in the Design Data produced during the Initial Period and seek to agree this prior to entering into the Letter of Intent.

## 7.2 MES

### 7.2.1 Comments on the draft Contract

MES have commented extensively on the draft Contract at each stage of the tendering process. In addition to their LLP proposal (which is commented on above), MES have consistently sought to significantly alter the risk allocation between the Employer and the Contractor (and, as an inevitable consequence, erode the Contract's price certainty). Notwithstanding the significant concessions offered in the States' Commercial Clarifications and the provisions of the Letter of Intent, MES's amended tender submission contained 18 pages of (mostly critical) comments on the amended draft Contract. Despite being requested to do so at the tender meeting on 11 June 2003, MES have not produced a detailed mark-up of the Contract (which they are aware is needed in order to establish the full implications of their desired amendments) and instead MES have (rather ominously) suggested, in their amendments to the draft Letter of Intent, that a period of 8 months be set aside to agree the conditions of Contract following the selection of Preferred Tenderer (despite having had the draft Contract since July 2002). Examples of particularly significant comments made by MES include the following (but this list is by no means exhaustive):-

- (a) MES wish there to be a much more limited definition of “Primary Waste” and that any waste delivered to site which does not conform with the definition will be “Unacceptable Waste” for which MES will be relieved of responsibility and the States will bear the additional cost of dealing with.
- (b) In addition to seeking undertakings from the States regarding the quality of waste, MES are seeking guarantees of weekly waste supplies from the States and contractual relief if either too much or too little waste is delivered to site (n.b. this is despite MES being provided with all available information on local waste composition and waste arisings and being aware that the States are unable to offer such guarantees as it does not own or have direct control of the island’s waste).
- (c) MES wish their plant performance guarantees to be conditional on the States complying with the waste quality and waste supply requirements proposed above. In addition, MES are seeking the dilution/relaxation of the strict compliance tests to be undertaken at Handover.
- (d) MES are seeking to completely cap their liability under the Contract (possibly even for their fraud, deliberate default and abandonment of the Works, all of which are industry-standard, besides logical, exclusions from any liability cap).
- (e) MES wish to significantly expand the list of circumstances which would entitle the Contractor to extensions of time, relief and compensation from the States/SPC (during both the construction and operation phases). If accepted, the resultant re-allocation of risk would allow MES a far greater opportunity to make claims, making major disputes more likely and seriously undermining the Contract’s price certainty.

The general impression given by the commercial commentary contained in MES’s tender submission is one of disinterest in ‘traditional’ turnkey projects coupled with a high degree of dissatisfaction with the proposed Contract terms. However, the representatives of the MES consortium who attended the tender meeting on 11 June 2003 gave a markedly different impression (which was positive, upbeat and accommodating) as if the MES representatives present at the meeting had little or no part in preparing MES’s legal/commercial comments. That said, despite the representatives’ stated willingness to accommodate the States, it was evident that CNIM wished to continue pushing their LLP proposal. As leader of the MES bidding consortium, CNIM were asked at the tender meeting if they would seriously reconsider their position and advise the States of the increase in price (if any) required in order for CNIM to be the sole Contractor (in place of their proposed LLP) and thereby assume 100% of the turnkey responsibilities (as this was the States’ express preference). As CNIM have not responded to the States on

this issue, one can only deduce that (unlike the other Tenderer) they are unwilling to contract with the States on the ‘traditional’ turnkey basis envisaged in the ITT (but are similarly unwilling to pass on the dramatic cost savings that would be justified if their LLP proposal was accepted).

#### 7.2.2 Comments on the draft Letter of Intent

Generally, the amendments proposed by MES to the draft Letter of Intent are fewer in number (and less extensive) than those proposed by LURGI. However, the proposed amendments of MES bear a number of similarities to LURGI’s comments and include the following:

- (a) **finalisation of the conditions of Contract** – MES wish to defer negotiation of the Contract terms until after the selection of Preferred Tenderer. Like LURGI, MES have had the draft Contract since the ITT was issued in July 2002 and have had ample opportunity to comment in detail on its provisions. MES are similarly aware of the States’ wish to finalise the conditions of Contract before the Letter of Intent is entered into in order to avoid protracted negotiations over the Contract’s terms. Despite this, MES have estimated that 8 months of the 9-month Initial Period may be needed in order to conclude Contract negotiations which, in addition to creating additional cost for the States, would necessarily divert significant amounts of time and resources (of the States’ project team and MES’s management) away from the achievement of the key Initial Period tasks. Having regard to the nature and extent of MES’s comments on the draft Contract (see above) we would not expect the Contract negotiations to be successfully concluded without a sea-change in MES’s commercial attitude and approach.
- (b) **process leading up to signing the Contract** – MES are resistant to the Letter of Intent containing a mechanism whereby the Contract Deliverables can be determined (by an expert) in the event of the parties failing to agree them by the target agreement dates. Due to the limited number of Contract Deliverables to be agreed and, in particular, the fact that the States will not be at liberty to open up discussion of the Base Contract Price or the Base Specification we, do not believe that these provisions should concern the Tenderers. However, the provisions are needed in order to focus the efforts of the parties on agreeing the deliverables and ensure a positive outcome to the process by the end of the Initial Period.
- (c) **confidentiality undertaking** – MES have introduced confidentiality undertakings into the Letter of Intent. If MES are selected as the Preferred Tenderer, the acceptability of these provisions will require to be reviewed in order to ascertain what level of confidentiality undertaking can be granted by the States in the circumstances (particularly given the

need for the States to make disclosures in order to obtain the Necessary Consents). That said, MES have incorporated confidentiality provisions that are akin to the confidentiality provisions contained in the Contract and which, consequently, are more acceptable than those proposed by LURGI.

- (e) **limitation on right to use intellectual property** – MES have made the entitlement of the States to use their intellectual property conditional upon MES being awarded the Contract at the end of the Initial Period. This is illogical because the Contract contains its own intellectual property provisions and the Letter of Intent would cease to be enforceable upon the Contract being entered into. The provisions exist in the Letter of Intent solely to cover the duration of the Initial Period and the possibility that the Contract may not proceed. As stated above, the States' need to make use of Design Data in the event of the Contract not proceeding will require further review and discussion with the party who is selected as the Preferred Tenderer.
- (f) **extension of Initial Period** – MES propose that the Initial Period can only be extended by mutual agreement.

In common with the respective positions of the Tenderers in relation to the Contract, the most significant difference between the MES and LURGI in relation to the Letter of Intent is that MES are proposing that an LLP (rather than CNIM) enter into the Letter of Intent with the States. Accordingly, we believe that MES's more positive response on the draft Letter of Intent is predicated upon (and should be interpreted against the background of) their LLP proposal. Regardless of our other considerable misgivings over MES's LLP proposal, we doubt that an LLP could be established by MES's consortium within the present timescale for concluding the Letter of Intent (i.e. by 4 July 2003) . In addition, as the proposed LLP will have no staff, we could not confidently state that the key personnel who are to be named in the Letter of Intent (none of whom will be employees of the LLP) will be kept available to deliver the Initial Period Services throughout the Initial Period.

Lastly, and most importantly, the States' contractual rights and remedies against the proposed LLP for any breach of the Letter of Intent would (in the absence of adequate bonds, guarantees or other performance security) not be sufficiently effective. Unsurprisingly, we could not recommend acceptance of this to the States.

## 8. Summary and Recommendation

### 8.1 Technical

Both Tenders are substantially in accordance with the Employer's Requirements and from an evaluation point of view there are only few differences between the two Tenders.

A summary of our findings is set out below, where:

'(+)' indicates 'slightly better than the other Tenderer',  
'+' indicates 'better than the other Tenderer' and

and vice versa for '(-)' and '-'.

Item	MES	LURGI
Reception facilities	Equal	Equal
Incinerator/furnace	Equal	Equal
Boiler	-	+
Flue Gas Treatment	(-)	(+)
Turbine	(+)	(-)
Architectural Appearance	(+)	(-)
Civil Works Standard	Equal	Equal

The details of the reasons for the indicative scores can be found in the earlier sections of this report.

In relation to the Architectural Concept it should be mentioned that the Island Development Committee (IDC) has expressed concerns over both of the proposed Architectural proposals.

Further, the IDC has expressed reservations in respect of how MES has prepared the plant layout on the Site for the Second Incineration Line (to be installed in a distant future).

Even though we have provided an indicative rating of the Architectural Concept, we would recommend that the final assessment of the Architectural Concept should be endorsed by the Competent Authority, IDC.

### 8.2 Management

No relevant differences between the Management Proposals have been identified. Both Tenderers appear to be able to provide a high standard of management skills and they both state that a total of 25 people can staff the Plant.

### 8.3 Financial

The capital costs of designing, building and commissioning the plant are almost identical for the two Tenderers.

The operating costs for the MES proposal are less than those proposed by LURGI.

MES's Tender is based on a Limited Liability Partnership approach, which is different from the intentions of the ITT. MES have stated that it would add significant costs to their price should they accept the obligation for CNIM S.A. to be the turnkey Contractor.

As stated above, LURGI have not yet come back with their detailed comments to the Contract, as requested. They are expected early next week.

We are unaware of what amount of insurance costs have been included in LURGI's Base Contract Price and this value should be taken out of their Base Contract Price, as the States will provide the majority of the insurances required. If LURGI were to be selected as the Preferred Bidder they should be asked to state this amount, so it can be taken out of their Base Contract Price.

None of the Tenderers have firmly confirmed that their Base Contract Price as currently tendered is in fact based on the Milestone Payment profile, as currently set out in the draft Contract.

We recommend that the financial strength of the proposed Preferred Bidder be properly examined by a firm of financial advisors and that the coming into effect of the Letter of Intent be stated to be conditional upon the States' financial checks being satisfactorily concluded .

### 8.4 Legal

Until the return of amended tenders in May 2003, over the course of the tendering process there had not been much to differentiate between MES and LURGI in relation to their commercial/legal positions. However, differentiation on a legal/commercial basis has not been difficult since the date that MES first proposed to form an LLP for the purpose of entering into the Contract with the States/SPC. We have carefully studied all of the information produced by MES and their legal advisers on their LLP proposal (together with the specific Contract amendments which MES issued in support of their proposal). Despite the project team's initial "gut reaction", we approached MES's proposals with an open mind in the expectation (and hope) that MES had somehow managed (i) to circumvent the obvious difficulties and problems associated with their LLP proposal in the context of a turnkey project and (ii) to provide adequate contractual protections for the client. However, our detailed review of MES's proposal has served only to increase our concerns rather than reduce them. As stated earlier in this report, the



purpose (and effect) of the LLP proposal is not only to materially limit the exposure of the LLP's members to liability but also to strictly confine the members' responsibility to the extent of their respective input (such responsibility in turn being limited by the terms of Sub-Contracts to which the States/SPC will not be a party nor have any control over). We can see nothing of benefit to the States/SPC in MES's LLP proposal and MES's tender price does not reflect the commercial advantages/benefits that the LLP structure would give them. LURGI are not proposing an LLP and are willing to contract in their own name (in compliance with the ITT). In consideration of this, the States asked CNIM to confirm that they would be prepared to do likewise, but CNIM have (for whatever reason) chosen not to give such confirmation. Had CNIM given such confirmation we would have experienced much greater difficulty in differentiating between the two Tenderers on a legal/commercial basis (the tenders being otherwise extremely close). Clearly, there are several grounds on which the Tenderers are evaluated although, in light of our foregoing comments, our evaluation of the tenders as regards legal/commercial matters is that LURGI's tender is (on the basis of the information so far disclosed to us by both Tenderers) the better of the two.

To sound a final cautionary note, it should be borne in mind that LURGI have not yet fully disclosed the amendments that they desire to make to the draft Contract (which amendments are expected shortly). Only once these amendments have been seen and reviewed by us will LURGI's full legal/commercial position be known. However, we would not expect this to dramatically alter the outcome of our legal/commercial evaluation.

## 8.5 Summary

The States have received two comprehensive Tenders.

The result of the analysis of the Technical Proposals is that, albeit there are significant differences between the proposed technical solutions, both Tenders meet the overall technical requirements and they are considered to be of equal quality and robustness.

Subject to our comments on the LLP proposal, the Management Proposals confirm that both Tenderers have the capability and track record to be able to manage the project. Both companies propose that – in the long term - a staff of 25 shall run the plant.

The result of the analysis of the Financial Proposals is that the two Tenders are equal in Capital Costs but the MES proposal is the more advantageous to the States in terms of operating costs.

The result of the legal/commercial analysis reveals a more significant difference as LURGI have confirmed that they will accept the role as (turnkey) Contractor whereas MES state that they have based their price on a Limited Liability

Partnership (LLP) arrangement, which is considered to be disadvantageous to the States. Even though MES have been encouraged to price the Contract as currently drafted they have not provided the States with such pricing.

Both Tenderers propose that the detailed drafting of the Contract will have to take place during the Initial Period as they are unable to provide the States with their detailed comments at this stage. We do not consider this to be acceptable and the situation will require early discussion with the Preferred Tenderer. MES have attempted to summarise the key findings whereas LURGI have not yet given their detailed comments.

On the basis of the above analyses, the main project-specific risks with the Tenders are as follows:

MES	LURGI
<b>Shared risks</b>	
Reluctance/inability to finalise the drafting of the Contract prior to the date of the Letter of Intent	
Inability to obtain adequate bonds	
Unavailability of guarantees for quality of washed ash	
Additional costs as a result of objections/adverse comments from Competent Authorities, in particular, IDC, in relation to the proposed Architectural Concept.	
Reluctance/inability to agree the Contract Deliverables within the Initial Period	
<b>Specific risks</b>	
Adverse consequences of the LLP proposal	Higher operating costs
Additional operating costs for the successor operator as a result of a requirement for more frequent replacing of superheater bundles.	Additional costs as a result of requirement for additional boiler protection in 1 <sup>st</sup> and 2 <sup>nd</sup> pass
	A more detailed discussion of the Civil Works / Building Works could reveal caveats originating from the less clear answers to the latest questions.

## 8.6 Recommendation

Whilst the competition has been extremely close, from our detailed analysis of the tenders we would recommend to the States that they invite LURGI to participate in the next stage of the process (i.e. the negotiation, finalisation and entering into of the Letter of Intent by 4 July 2003) on an exclusive basis.

However, we would recommend that such invitation to LURGI be stated to be issued on the basis that if the parties fail to successfully enter into the Letter of Intent by 4 July 2003, the States reserve the right to terminate such exclusivity arrangement and re-open a dialogue with MES.

# GUERNSEY TECHNICAL SERVICES

Guernsey EfW Project  
Addendum to Tender Appraisal Report  
Executive Summary

August 2003

Job 157003K  
Ref.No. 834-031386  
Edition Final  
Date 08 August 2003

Prepd. KJJ  
Checked RDC

## Background

Following receipt on 23/24 June 2003 of the Tenderers' responses to the Board of Administration's clarification questions of 16/17 June 2003, the Board of Administration's advisors prepared and issued a Tender Appraisal Report, (ref. 834-031226) dated 30 June 2003.

After considering the contents and findings presented in the Tender Appraisal Report, the Board of Administration identified that the Tender submitted by LURGI (U.K.) Ltd. (in conjunction with Hochtief (UK) Construction Ltd., Lurgi Energie & Entsorgung AG and Cyclerval (UK) Ltd.) represented the most attractive Tender.

As a result, LURGI (U.K.) Ltd. (hereinafter referred to as "LURGI") was invited (on an exclusive basis) to attend further meetings for final clarification of the outstanding technical & financial issues and to negotiate and finalise the terms of the draft Contract and the draft Letter of Intent.

In tandem with the final clarification and negotiation meetings, the Board of Administration have separately procured an analysis of the financial robustness of LURGI.

---

<sup>1</sup> Other than those Appendices that are to be developed and agreed during the Initial Period.

## Legal Clarification

Discussions between the Board of Administration and LURGI in relation to the outstanding legal/commercial issues were concluded on 4 August 2003 (and a further revised draft Contract reflecting the outcome of those discussions was issued to LURGI later that same day).

On 6 August 2003, the Board of Administration announced that LURGI's Risk Board had approved the Contract (although written confirmation of this is still awaited from Lurgi). In addition, we are awaiting confirmation from Lurgi that the draft Letter of Intent and draft Contract (as issued) are finally agreed, although we expect to receive such confirmation later this week (together with confirmation that one of Lurgi's Directors, David Porter, will be attending the Letter of Intent signing meeting to be held at Sir Charles Frossard House at 12 noon on Friday 15 August 2003).

### **Summary of Legal/Commercial developments**

In general, neither the Contract's structure nor the parties' risk sharing has materially altered since our Tender Appraisal Report was issued.

#### Letter of Intent

The Preferred Tenderer letter issued by the Board of Administration to LURGI on 10 July 2003 records the key principles agreed between the parties which are now reflected in the draft Letter of Intent, namely:-

- (a) **Expert determination** – In the event of any of the Contract Deliverables not being agreed by its “Target Agreement Date” the matter in disagreement may be referred by either party to the Expert for resolution, with the intent that (save in the unlikely event that the Project is cancelled by the States or the Letter of Intent is terminated) the provisions of the Letter of Intent will enable (a) each of the Contract Deliverables to be finalised before the expiry of the 9 month Initial Period and (b) the Contract to thereafter be completed and entered into. (Para 7.1.2b, Tender Assessment Report)
- (b) **Scope of Initial Period Services** – The Letter of Intent now annexes a list of “Particular Services”(being the core services that LURGI will perform over the Initial Period together with key milestones for the completion of such services). The services listed as “Particular Services” may be supplemented and refined by written instructions issued by the Board of Administration either at or following the regular monthly Progress Meetings and/or Design Workshops during the Initial Period. (Para 7.1.2c, Tender Assessment Report)

- (c) **Confidentiality** – In recognition of the fact that the Letter of Intent (and the activities of the parties during the Initial Period) will, to a large extent, be in the public domain, the States’ confidentiality obligations in the Letter of Intent focus on the non-disclosure of LURGI’s industrial secrets and commercially sensitive information to third parties (such information being defined in the Letter of Intent as “Waste to Energy Technology”). (Para 7.1.2d, Tender Assessment Report)
  
- (d) **Intellectual Property Rights** – The parties have agreed that Design Data provided for or on behalf of LURGI during the Initial Period may be used by the States in connection with the construction, commissioning, use, operation and maintenance of the Plant (but no other waste incineration facility) whether or not the Project proceeds beyond the expiration of the Initial Period, provided that any use of such Design Data following termination of the Letter of Intent will (i) be done so solely at the States’ risk and without recourse to LURGI and (ii) be subject to any third party rights restricting the use of such Design Data. (Para 7.1.2e, Tender Assessment Report)
  
- (e) **Termination of Letter of Intent** – The States may terminate the Letter of Intent at any time until the expiry of the 9 month Initial Period if:
  - (i) LURGI wholly or materially (a) suspends or delays the carrying out of the Initial Period Services (or any of them) or (b) fails to proceed regularly and diligently in the performance of the Initial Period Services (or any of them) in accordance with the Letter of Intent;
  
  - (ii) LURGI fails to comply with any of its obligations under the Letter of Intent and fails to remedy the breach in question within 14 days of its receipt of a written notice from the States’ Representative specifying the relevant default;
  
  - (iii) an Insolvency Event (as defined in the Contract) occurs in relation to LURGI;
  
  - (iv) the States consider (acting reasonably) that the Environmental Licence and/or the Planning Permission will not be granted by the relevant Competent Authorities in terms satisfactory to the States (as to which the States will be the sole judge) before the expiry of the Initial Period;
  
  - (v) the Project or any part thereof is cancelled by the States or the Project cannot proceed for reasons beyond the reasonable control of the States; and/or

- (vi) the States give 14 days' notice to the Preferred Tenderer of their intention to terminate the Letter of Intent on the date of expiry of such notice period and makes payment to LURGI of the sums due (but unpaid) to LURGI under the Letter of Intent up to the date of such termination.

Note: (1) If, before the expiry of the 9 month Initial Period, the Contract has not been entered into and the States have not extended the duration of the Letter of Intent, the Letter of Intent will automatically terminate on the date of expiration of the Initial Period, (2) LURGI will be entitled to terminate the Letter of Intent if the States are in material breach of their obligations and have not remedied such breach within 28 days of being notified by LURGI and (3) either party will be entitled to terminate the Letter of Intent if performance of their obligations under it is prevented by the occurrence of a Force Majeure Event for 6 months or more.

Whilst the final Contract Price, Annual Fixed Fee and Operating Fee are all "Contract Deliverables" that are to be agreed or determined in accordance with the Letter of Intent during the 9 month Initial Period, the Letter of Intent will also include a warranty by LURGI to the States as to the robustness/reliability of their Base Contract Price, the Base Annual Fixed Fee and the Base Operating Fee as at the date of the Letter of Intent.



## Financial Clarification

### Maximum Initial Period Fee

The clarifications have not identified any changes to the proposed Maximum Initial Period Fee. Lurgi have confirmed that the rates for the German engineers providing assistance during the Initial Period are correct even though the States' Consultants considered them to be unusually high.

LURGI has identified applicable hourly rates for each staff member (both in the UK and in Germany) who is envisaged to provide services in the Initial Period.

### Project Insurances

The Board of Administration intends to take out an all-inclusive insurance package for the Project, covering not only the Employer but also the Contractor, as required. (Para 8.3, Tender Assessment Report )

During the clarification and negotiation meetings, Lurgi has informed the Board of Administration, that an amount of €400,000 provisionally has been included in their Base Contract Price to provide "top up" insurance cover for any risks that may not be covered by the Project insurances taken out by the Employer/Board of Administration, but which cover is considered necessary by Lurgi. Lurgi has further confirmed that that amount will be taken out - in whole or in part as relevant - from their Base Contract Price once the Project's insurance arrangements have been settled (with Marsh) during the Initial Period.

### Testing Period Fee

The Contract will allow the Contractor to receive a fee for receiving and incinerating Waste at the Plant during the Commissioning Period (i.e. from the date at which deliveries of Waste to the Plant begin). The fee has been specified as a flat rate of £50 per tonne of Waste incinerated. Income from the sale of power generated by the Plant in the same period will be payable to the Employer. The value of this fee to the Contractor minus the income from power sales is expected to amount to £400,000-£440,000.

### Base Annual Fixed Fee

As a result of the joint analysis of the Base Annual Fixed Fee Lurgi has managed to reduce its Base Annual Fixed Fee, but not by much.

As a result, the Base Annual Fixed Fee is now £2,816,503 / £2,515,003 in the 1<sup>st</sup> / 2<sup>nd</sup> year of operation of the Plant.

## Base Operating Fee

Also as a result of the joint analysis of the Base Operating Fee a number of misunderstandings have been cleared away.

As a result, the Operating Fee value has been reduced considerably from its previous value of £23.65 per tonne to £18.18 per tonne of Waste, representing an expected reduction in the costs of operating the Plant over the 2-year Services Period of approximately £600,000 and a substantially larger reduction of the costs of operating the Plant over its lifetime.

## Summary

A summary of the development in costs in the period between the date of issuing the Tender Appraisal Report and 5 August 2003 has been made using the £/€ exchange rate as per 27 May 2003 (0.725£/€), which was the date of return of Tenders in response to the Amended ITT, as issued 2 April 2003.

The exchange rate for Sterling against the Euro has improved and (at the date of this report) stands at 0.70175£/€ As a result, the Base Contract Price for the LURGI tender has decreased in Pounds Sterling by £1.3M.

In the June 2003 Tender Appraisal Report it was assumed that the additional price for providing a deeper (8m) bunker would be £377,066. Clarifications have identified that this additional price is more likely to be £460,000. This figure has therefore been included in the present report and, hence, a commensurate increase is required in the 'cap-ex capitalisation' row within the financial summary table of the Tender Appraisal Report.

The combined consequences of the improved £/€ exchange rate together with the impact on the Base Contract Price (as well as on the operating costs) of the matters clarified with Lurgi during the clarification meetings are set out in the table below.

<b>Capital Costs</b>				
		<b>June 03</b>	<b>August 03/A</b>	<b>August 03/B</b>
1	Project Management	14.436.125	14.436.125	14.173.519
2	M&E	32.226.253	32.226.253	31.203.563
3	Civil Works	22.609.300	22.609.300	22.609.300
	Base Contract Price	69.271.678	69.271.678	67.986.382
	Maximum Initial Period Fee	2.982.500	2.982.500	2.905.789
	Sub-total A	72.254.178	72.254.178	70.892.172
	Cap-ex capitalisations	459.367	542.300	542.300
	Sub-total B	72.713.545	72.796.478	71.434.472

<b>Operating Costs</b>				
		<b>June 03</b>	<b>August 03/A</b>	<b>August 03/B</b>
	Annual Fixed Fee, year 1 and 2	5.361.406	5.331.506	
	Operating Fee, year 1 and 2	2.838.000	2.181.600	
	Costs payable to the Contractor	8.199.406	7.513.106	
	Value of power production	-1.322.933	-1.322.933	
	Cost of operating year 1 and 2	6.876.473	6.190.173	

The 'August 03/A' column is based on the exchange rate of 0.725£/€ as per 27 May 2003. The 'August 03/B' column is based on the exchange rate of 0.70175/€ as per 5 August 2003.

It can be seen that whilst there is negligible effect on the Base Contract Price, there is a significant difference on the Operating Costs.

## Technical Clarification

### Reception Facilities

LURGI has provided the Board of Administration with two optional prices for building the bunker down to eight metres depth instead of four metres.

For an unchanged footprint the additional costs to the States would be £565,600, which amount will be reduced to £460,000 if the States decide to reduce the bunker footprint from its current 12x32 metres to 12x25 metres.

### Incinerator Technology

We have discussed the boiler design with LURGI and in particular the necessity of providing further protection (inconel cladding) to the boiler walls in the 1<sup>st</sup> pass as well as at the roof of both the 1<sup>st</sup> and 2<sup>nd</sup> passes. LURGI has provided the Board of Administration with an additional price of €280,000 for supplying this additional boiler protection.

### Leachability Testing / Plant Ash Quality Guarantee

The Board of Administration and LURGI have agreed to refer to appropriate and recognised European Standards for the determination of the quality of the Plant Ash, which means that LURGI has now agreed to provide a guarantee for the quality of the Plant Ash.

It should be mentioned that LURGI's Guarantee in respect of Plant Ash quality is qualified by a number of conditions but is reasonable.

In order to determine the quality of the Plant Ash, it is a requirement that the Plant Ash has been intermediately stored ('weathered') for a minimum of 90 days. The States will therefore require to provide a facility for the intermediate storage of Plant Ash for 90 days (possibly located at Longue Hougue).

### Civil Works Elements Clarification

Separate discussions have taken place with LURGI's proposed sub-contractor for the Civil Works Element, Hochtief (UK) Construction Ltd. The key purpose of those discussions was to better understand the robustness of LURGI's tender in relation to the civil works, cf. the concerns expressed in the Tender Appraisal Report.

As a result of those discussions, the Board of Administration and its advisors have now established a fairly clear understanding of the robustness of Lurgi's tender in relation to the civil engineering elements of the project. A number of issues have been clarified and, for the record, we would mention the following.

- The Base Contract Price includes for an enriched and developed architectural solution and it also includes for attractive landscaping with a combination of hard and soft landscaping.
- The structural engineering solution for the building foundations proposed by Lurgi will not require raking piles.
- Lurgi has confirmed that their Base Contract Price does allow for satisfying all of the requirements set out in the Base EWRs (the Employer's Works Requirements).
- Lurgi has confirmed to what extent consolidation/compaction of the Site is included in its Base Contract Price. The implications of this are that compaction/consolidation in relation to roads, hardstandings and parking areas are included in the tender whereas, to the extent that compaction/consolidation under the building footprint is required, such costs are not included in the Base Contract Price. Lurgi has provided unit prices for providing additional compacting/consolidation under the building footprint and an upper limit (estimate) for additional costs as a result of this caveat is £250,000.
- The Base Contract Price allows for 'foreseeable Fill issues' such as obstacles (bricks, smaller concrete blocks etc – not major obstacles), which - in the light of the Norwest Holst report - are likely to be met on Site.
- Lurgi has identified one area only where additional costs - in relation to the Site conditions - could be incurred during the Initial Period namely in the event that the site conditions in the eastern end of the Site are significantly different from those in the western end of the Site (which was the area investigated by Norwest Holst).

## Summary and Recommendation

### Legal

Given the limited time available between the date of selection of the Preferred Tenderer by the Board of Administration (on 10 July 2003) and the requirement to complete all contract negotiations by 1 August 2003 (in order to enable LURGI to obtain its Risk Board's approval and enable the parties to sign the Letter of Intent on 15 August 2003), reaching agreement with LURGI on the provisions of a 30-page Letter of Intent and a 255-page Contract presented a very considerable challenge, not least because of (a) the significantly changed construction marketplace since tenders were invited, (b) a general lack of interest in turnkey projects in the present marketplace and (c) the traditionally cautious and risk-averse nature of process engineering contractors. That said, both the Board of Administration and LURGI adopted a pragmatic and realistic approach to the contract negotiations and made available the necessary personnel to enable a consensus to be reached within the required timescale, without an adverse impact on the tendered Contract Price, Annual Fixed Fee or Operating Fee and with minimal deviation from the original risk allocation sought by the Board of Administration. Accordingly (on the basis that LURGI's Risk Board has now approved the Contract terms) the Contract conditions, in the form negotiated to date, will remain true to the turnkey principles of the Project and should (following the finalisation of (i) the Contract Price, Annual Fixed Fee and Operating Fee and (ii) the technical Appendices to the Contract during the Initial Period) provide a high degree of price certainty. As previously discussed with the Board of Administration, in advance of the Letter of Intent being signed, both the Letter of Intent and the Contract will also be reviewed and checked by Collas Day for compliance with Guernsey law. We would also recommend that the final draft of the States' Guarantee be submitted to the Law Officers of the Crown for their review and comment (in order that the Law Officers are aware of the proposal that the States will guarantee the SPC's financial obligations, as Employer, under the Contract and in case the Law Officers are aware of any legal or constitutional issues that may have arisen in relation to previous financial guarantees granted by the States).

### Financial

The clarification meetings have not had any impact on the Base Contract Price. A reduction of up to €400,000 of the Base Contract Price is to be expected once the insurance issues have been resolved during the Initial Period. At the same time, the Board of Administration will be paying the Testing Period Fee to the Contractor prior to Take-Over for treating Waste. The effect of the Testing Period Fee is expected to be in the order of £400,000-£440,000.

The operating costs have been reduced significantly primarily as a result of clearing away some misunderstandings.

The development of the £/€ exchange rate in the period from 27 May 2003 and up to 5 August 2003 has reduced the Base Contract Price in Pound Sterling value by £1.3M.

## Technical

The clarification meetings have considerably improved the understanding of the robustness of the Lurgi Tender. In many areas Lurgi has confirmed (to the Board of Administration's satisfaction) that certain items, which we were not sure were included in Lurgi's tender, were in fact included.

Lurgi has agreed to provide additional boiler protection in the form of additional inconel cladding without any impact on the Base Contract Price.

The risks associated with the ground conditions have been clarified in the sense that the main risks for incurring additional costs have now been limited to (a) costs associated with compacting/consolidating the Site under the building footprint and (b) costs incurred as a result of the western end of the Site being significantly different from the eastern end of the Site (which end of the Site was investigated to some extent by Norwest Holst).

The risks associated with obtaining Planning Permission and the Environmental Licence, and in particular with obtaining approval of the architectural concept, have not been further addressed and these risks therefore remain unchanged.

## Summary

The Tender Appraisal Report listed some key areas of concern in relation to LURGI's tender and commercial position. Over the course of the discussions and negotiations with LURGI during the period since their selection as Preferred Tenderer, these matters have been addressed and (having regard to the marketplace and prevailing circumstances) in our opinion the result is satisfactory.

## Recommendation

We would recommend that the Board of Administration be authorised to enter into the Letter of Intent with LURGI on 15 August 2003 and issue instructions to Guernsey Technical Services to continue developing the project (and finalise the outstanding Contract Deliverables) during the Initial Period.

The President  
States of Guernsey  
Royal Court House  
St Peter Port  
Guernsey  
GY1 2PB

27 August 2003

Dear Sir,

I refer to the letter dated 9 August 2003 addressed to you by the President of the Board of Administration on the subject of the provision of an Energy from Waste facility.

The Advisory and Finance Committee supports the Board of Administration's proposals which it considers offers the best long-term approach to deal with the Island's putrescible waste in a sustainable manner. In supporting the proposals the Committee acknowledges that the cost and size of the facility is significantly greater than originally indicated when the decision to investigate the feasibility of an Energy from Waste facility was first taken. However the Committee considers the principles behind the original decision remain valid.

The Committee has, of course, also considered the impact on the local construction industry of carrying out this major project at a time when the local industry is overheating. The Committee was advised that the majority of the work would originate off island and that approximately 20% of the work could be said to impact directly on the local construction industry. The Committee has also been advised that analysis of the project within the economic model of the local construction industry indicates that the States should consider delaying or reprioritising other capital projects to make capacity available for the Energy from Waste plant.

The Committee agrees with the Board of Administration's conclusions that the alternatives of increasing landfill capacity or the adoption of different untried technologies are unacceptable. The Committee also agrees that the principle of user pays should apply and that charges should reflect the true cost of waste disposal, albeit that those charges will be significantly higher than at present.

The Committee welcomes the reduction in cost achieved and expects the Board and its advisors to ensure that standards are not lowered during the design stage. The Committee has recommended that the project be funded by means of a loan from the States Treasury central funds made up of various balances on which interest is both paid and received. The loan would have to be repaid with interest over the estimated life of the facility. Therefore to achieve this the charges would have to be set at a level that fully covers the facility's capital, interest and running costs. The Committee will only approve the contract for the construction of the facility if it is satisfied that the long-term interests of the States have been safeguarded in the final design and the financial arrangements are robust enough to ensure that the borrowings are fully safeguarded.



The Committee regrets that a Waste Management Plan has not yet been considered by the States and it asks the Board of Administration to make the preparation of the plan a high priority. Nevertheless the Committee accepts that the absence of an agreed plan does not affect the fundamental requirement for an Energy from Waste facility. The consequences of delaying the project would be so significant as to prevent the Island dealing with its solid waste in the medium and long term.

The States have a fundamental duty to ensure that the Island's waste is treated in an efficient and sustainable manner. The Energy from Waste facility will be a significant and integral part of the Island's strategy for dealing with solid waste for the foreseeable future.

The Advisory and Finance Committee supports the Board's recommendations that the States approve the proposals.

Yours faithfully,

L.C. Morgan  
President  
Advisory and Finance Committee

The States are asked to decide:-

Whether, after consideration of the Report dated the 18<sup>th</sup> June, 2003, of the States Board of Administration, they are of the opinion:-

1. To reaffirm its previous in principle decision to procure an Energy from Waste facility under a Design Build and Two year operate contract.
2. To direct the States Board of Administration to proceed in accordance with the provisions of the Letter of Intent signed with Lurgi as set out in section 9.14 of that report and to commence the Initial Services period at a sum not to exceed £2,982,500 (€1 = £0.725).
3. To direct the States Board of Administration to obtain all necessary approvals from the States Board of Health and Island Development Committee as part of the plant design process.
4. Following completion of the Initial Services period, to authorise the States Board of Administration either directly or through its SPC, subject to the approval of the States Advisory and Finance Committee, to contract with Lurgi, for the construction of an EfW facility at the capital sum being not more than the negotiated figure of £69,813,978 (Base Contract Price plus + Cap Ex Capitalisation, €1 = £0.725) excluding contingency inflated as set out in section 9 of that report.
5. Following completion of the initial services period, to authorise the States Board of Administration either directly or through its SPC, subject to the approval of the States Advisory and Finance Committee, to contract with Lurgi, for the two year operation of the EfW facility at the negotiated sum of £7,513,106 (€1 = £0.725) inflated as set out in section 9 of that report.
6. To approve as a contingency sum a figure of 10% of the tendered capital sum in respect of the design and construction phases of the facility.
7. To direct the States Board of Administration, to procure, subject to the approval of the States Advisory and Finance Committee, project specific insurances and consultancy services, as set out in section 9.16 and 9.17 respectively of that report.
8. To authorise the States Advisory and Finance Committee to advance to the States Board of Administration or the SPC a loan to the maximum sum of £80 million for the purpose specified in that report; such loan to be advanced in stages as necessitated by the contract requirements and repaid over a 25 years amortisation period and attracting interest at the Treasurer's interest rate.

9. To resolve a general exclusion of liability against any director, member or officer of the Special Purpose Company as set out in section 11 of that report.
10. (1) That the provisions of section 65 of the Housing (Control of Occupation) (Guernsey) Law 1994, shall be suspended in respect of the temporary accommodation referred to in section 9.5 of that report.  
  
(2) To direct the preparation of such legislation as may be necessary to give effect to their above decision.

DE V. G. CAREY  
Bailiff and President of the States

The Royal Court House,  
Guernsey.  
The 5th September, 2003