

# STATES OF JERSEY

## SCRUTINY COMMITTEE BLAMPIED ROOM, STATES BUILDING

### WASTE MANAGEMENT STRATEGY

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**Present:** Deputy Phil Rondel (Review Chairman)  
Senator Ted Vibert  
Senator Jean Le Maistre  
Deputy Rob Duhamel  
Deputy Bob Hill

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**PRESENTATION BY AND QUESTIONS AND ANSWERS TO  
MR ERIC MAROUFI, MR ERIC MARTIN AND MR ALAIN MARIE  
(OXALOR)**

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on

**Thursday, 17th February 2005**

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DEPUTY RONDEL: Good morning, gentlemen. For the record, will you please give your names?

**Mr Eric Maroufi, Mr Eric Martin and Mr Alain Marie introduced themselves to the Panel**

DEPUTY RONDEL: For the record, I have to read the following statement. It is important that you fully understand the conditions under which you are appearing at this hearing. You will find a printed copy of the statement that I am about to read to you on the table in front of you.

Shadow Scrutiny Panels have been established by the States to create opportunities for training States Members and Officers in developing new skills in advance of the proposed changes of government. During this shadow period, the Panel has no statutory powers and the proceedings at public hearings are not covered by Parliamentary privilege. This means that anyone participating, whether a Panel Member or a person giving evidence, is not protected from being sued or prosecuted for anything said during hearings. The Panel would like you to bear this in mind when answering questions and to ensure that you understand that you are fully responsible for any comments that you make. Thank you. Would you, please, give us your presentation? Would you, when speaking, try and speak into the microphone?

MR MAROUFI: So I will explain to you exactly the process of Oxalor system.

**The presentation was delivered mainly in English, a Scrutiny Officer translating from French where necessary**

SENATOR LE MAISTRE: But you mustn't eat it.

MR MAROUFI: It has not got a good taste, but it is absolutely no danger for you.

**The presentation continued**

SCRUTINY TRANSLATOR: The product is recyclable into the agricultural industry and it represents 80% of household waste.

**Conversation in French**

MR MAROUFI: In France it is only product is ... (indistinct) ... It is not waste. The Minister of Agriculture in France say it is not a waste, it is a product of ----

DEPUTY RONDEL: A fertiliser.

MR MAROUFI: And this is the only product which has in France what we named APB.  
During the last seven years, it is the only product which obtains this from the French Ministry of Agriculture.

DEPUTY RONDEL: So that is permitted to be put on the soil?

MR MAROUFI: Yes.

DEPUTY RONDEL: As a fertiliser?

MR MAROUFI: Yes, of course.

DEPUTY RONDEL: And it carries a licence to that effect?

MR MAROUFI: Yes.

### **Conversation in French**

SENATOR LE MAISTRE: Does it include animal waste as well?

MR MAROUFI: Yes.

SENATOR LE MAISTRE: It does include animal waste because of the high temperature?

MR MAROUFI: Yes. This system in fact includes raw household refuse and it includes, for example, animal menu or sludge?

SENATOR LE MAISTRE: Yes, but not animal carcasses?

MR MAROUFI: No, no carcasses.

SENATOR VIBERT: Household scrapings, like meat, fat and so on.

MR MAROUFI: Just menu from poultry or ...

SENATOR VIBERT: Chicken carcasses?

MR MAROUFI: No chicken carcasses and not meat carcasses, just kitchen menu.

SENATOR LE MAISTRE (asks question in French).

MR MAROUFI: Only the worst of the ... (indistinct) ...

DEPUTY RONDEL: Household, that is right.

MR MAROUFI: Everything for our life, for the waste which results from our life, from human waste.

### **Conversation in French**

MR MAROUFI: Mr Marie says that this process does allow us to treat the sludge from ...

(indistinct) ... for example, from greener waste and so and householder.

DEPUTY RONDEL: Gentlemen, could we make sure that there is only one of us speaking at a time on account of it is all being recorded and otherwise we will have difficulty when they transcribe it later, so if only one of us speaks at a time.

MR MAROUFI: Okay, apologies.

DEPUTY RONDEL: And the Panel as well. Thank you.

SENATOR VIBERT: Mr Chairman?

DEPUTY RONDEL: Yes, carry on, Senator.

SENATOR VIBERT: Just so that I am clear in my mind, a household bin would contain things like cuttings from meat that someone hasn't eaten, chicken bones, pork chops, a big chop that they haven't eaten, or parts that they haven't eaten, which all goes in their bin.

MR MAROUFI: Yes.

SENATOR VIBERT: Now, is your product capable of dealing with that in terms of being able to put the result of it on the land?

SCRUTINY TRANSLATOR (following translation): Any meat from the supermarket that you buy that would normally go through a kitchen process is acceptable to that system. What they can't treat is carcasses.

SENATOR VIBERT: No, I realise that.

SCRUTINY TRANSLATOR: So that is the definition.

MR MAROUFI: Just for an example, Eric Martin says that just near Poitiers we treat with this process the waste of the company which is called Marie Unique (sic), which is a very big company in the food industry and we take their waste.

SENATOR VIBERT: So restaurant waste as well? The waste from restaurants?

MR MAROUFI: Yes, of course.

SCRUTINY TRANSLATOR: Markets.

MR MAROUFI: Yes.

SENATOR VIBERT: Now, your green waste, the leaves and what-have-you that comes in, does that included the branches, the wood?

MR MAROUFI: Yes.

SENATOR VIBERT: It includes that. And agricultural waste, like potatoes?

MR MAROUFI: Yes, yes.

### **Conversation in French**

DEPUTY RONDEL: Would it also include medical waste from the hospitals?

MR MAROUFI: Medical?

DEPUTY RONDEL: Medical waste from the hospitals?

MR MAROUFI: No, no.

SENATOR LE MAISTRE (asks question in French). And household domestic waste?

MR MAROUFI: Yes, domestic.

### **Continues with presentation**

SCRUTINY TRANSLATOR: The picture on the screen is showing a separate collection of green waste and household. It is showing a collection of household and green waste going to separate areas of the plant. However, both products are mixed at the plant, so they can actually be mixed up at the delivery point. The waste product is turned into pellets and is treated so that it is actually a hygienic product that comes out at the end and can be used for agriculture as a fertiliser.

### **Conversation in French**

MR MAROUFI: Mr Alain Marie says that, after this process, there is no waste from the Island will go in the waste with agriculture waste and all the other refuse -- that is plastic or ferrous metal -- are recycled. So I think it is very important to our clients that there is absolutely no waste on the Island and no pollutants thanks to this method on the Island.

### **Conversation in French**

SCRUTINY TRANSLATOR: Everything goes into that process -- the paper, the plastic, the cardboard, everything. The only thing they take out are really things that should never reach waste, like batteries, bicycles and things like that that people put in and they really shouldn't do.

SENATOR VIBERT: So there is a sorting system in front of this?

SCRUTINY TRANSLATOR: No, they don't do any sorting really than other those kind of things

like if they spot bicycles.

SENATOR VIBERT: That is what I mean. That is how they sort out the batteries and the things that shouldn't be there.

### **Conversation in French**

SENATOR VIBERT: A metal detector?

SCRUTINY TRANSLATOR: They have got an operator watching and with a ----

SENATOR VIBERT: Metal?

SCRUTINY TRANSLATOR: With an arm.

SENATOR VIBERT: A metal detector?

SCRUTINY TRANSLATOR: With an arm they take it out.

### **Conversation in French**

SCRUTINY TRANSLATOR: It is magnetic, but they can also pick up things that aren't necessarily metallic.

### **The presentation continued**

SCRUTINY TRANSLATOR: It goes through a process that actually makes the waste material come out with less than 30% humidity, which makes it much easier then for the system to take out other wastes that need to be removed.

### **The presentation continued**

SCRUTINY TRANSLATOR: After that process of removing that much humidity, it is very simple for the automated process to take out the waste products that are actually recyclable.

### **The presentation continued**

SCRUTINY TRANSLATOR: So 50-55% of that waste, of that organic waste, goes to produce this product that goes back to agriculture as a fertiliser and 100% of the green waste that comes into the system and the clean sludge would be processed and could be reused.

### **The presentation continued**

SCRUTINY TRANSLATOR: And the other 50% of the waste products, such as paper, plastic, ferrous and non-ferrous materials, are separated into the various waste streams for recycling. Ferrous products are removed using an electrical current, an electro-magnet. They also have a

mechanical removal of non-ferrous metals. And they have another mechanised operation to remove any plastic containers from the waste. They have got an aspirator that moves all the light floating plastics. And all the stones and glass drops to the bottom of that sorting process.

DEPUTY RONDEL: Where does that go from there?

SCRUTINY TRANSLATOR: They make certain choices as to the degree of sorting within the ferrous and non-ferrous metals because of the cost implications of having very fine sorting, but the loads of metal are deposited into trucks and they are sold into the specialised waste stream industries. The plastic waste, the light plastic waste is sold into the building industry as combustible and materials, actual fabrics. This is sold off because it burns well and it releases very few emissions.

### **The presentation continued**

SCRUTINY TRANSLATOR: They are having some difficulties with the resale of plastic containers. There is an element of that going to landfill because they are selling it in some countries where there is an issue of child labour being used or children burning the plastic and inhaling the fumes, so there are political concerns about the streams currently used to dispose of that plastic, so some of it is going to landfill.

### **The presentation continued**

SCRUTINY TRANSLATOR: What he is saying is that the glass and stone deposits and any heavy items are ground down and they are used for bases for roads or housing or that kind of thing.

### **The presentation continued**

SCRUTINY TRANSLATOR: So from the time of delivery to the time of exit from the plant it takes four hours for the waste to go through the system. There is no smell. There is no liquid and no smoke.

### **The presentation continued**

SCRUTINY TRANSLATOR: There is the reacting centre in the plant and you get water and ammonia from that process, but that is filtered. There is a water filtration to dispose of the ammonia. That is stored in a vat and that is then utilised within the mixture, the end product,

because that brings value to the mixture.

DEPUTY RONDEL: Is the plant situation externally or internally?

SCRUTINY TRANSLATOR: It is all covered. It is a very clean process. They don't have any problems with wildlife or birds digging through bags or rat infestation or anything. It is a very rapid process and there is no smell, nothing to attract them.

### **The presentation continued**

SCRUTINY TRANSLATOR: He is extending an invitation for anyone who wishes to go and visit their pilot site which will show how it works exactly.

DEPUTY RONDEL: How many of these plants have you got in total or is this the only one?

SCRUTINY TRANSLATOR: It is a developmental process. This is their second factory on the same site. It is a development on the original one. They have been operating for six years and it takes five years to become recognised as a developing technology. You also have to achieve recognition from the Agricultural Ministry and the Environmental Ministry. They have achieved Agricultural Ministry licensing for the product now.

SENATOR VIBERT: Could I ask what the capacity of the plant is?

DEPUTY RONDEL: In a second, I shall stay on the same line. Are there others around the world of this type, other plants?

SCRUTINY TRANSLATOR: They are hoping to set up a second factory in Moyon. They have already agreed with the politicians in the area and that is going to be their second factory which will just be starting.

DEPUTY RONDEL: Senator Vibert?

SENATOR VIBERT: Could you tell us what the capacity is per year? How much can you handle with that plant?

SCRUTINY TRANSLATOR: And industrial pilot scheme ----

SENATOR VIBERT: Yes, but how much? What's the tonnage?

### **Conversation in French**

SCRUTINY TRANSLATOR: It can go from 45,000 to 80,000 tonnes per annum. What he was pointing out is that it is all quite low technology from a mechanical point of view, so it is very



sound.

DEPUTY RONDEL: But is the question that, to make it bigger, it has to go bigger, in other words?

SCRUTINY TRANSLATOR: So each line, as it were, has a 17 tonne per hour capacity.

SENATOR VIBERT: Right.

SCRUTINY TRANSLATOR: They run the conveyer chains, if you like, in parallel, so you don't really need that much of a bigger building. You can actually run them in parallel and he is saying that the advantage of having several streams is that you allow for maintenance. The anticipated capacity in La Manche is 40,000 tonnes per year.

SENATOR VIBERT: Is it a switch on/switch off system? In other words, press the button and it starts?

SCRUTINY TRANSLATOR: Yes, basically like a car. You switch it on and off like a car. The factory will even cope with strikes and such like because you don't have to give it any notice. You can shut it down and switch it back on as required.

DEPUTY RONDEL: What is the cost of a plant taking 80,000 tonnes?

SCRUTINY TRANSLATOR: 30 million.

DEPUTY RONDEL: €30 million?

SCRUTINY TRANSLATOR: Yes, €30 million.

### **Conversation in French**

SENATOR VIBERT: Could I ask you now about the product? Carol, I would like to ask about the product.

### **Conversation in French**

SCRUTINY TRANSLATOR: It is the first product that has actually gone from being classified as a waste to being classified as an agricultural fertiliser.

SENATOR VIBERT: Yes, I understand that. Could I ask you if you have a capacity of 80,000 tonnes, how much of your 80,000 tonnes of waste, how much of this ends up?

SCRUTINY TRANSLATOR: About 35,000 tonnes, because there is only about 50% of the household waste that is actually organic waste that they are using for this and then they remove

significant amounts of water from that waste, it means they have a far reduced product.

SENATOR VIBERT:           What do you do with your current ... how do you use your result now from your plant? What happens to this?

### **Conversation in French**

SCRUTINY TRANSLATOR:       There is a lot of land in France that is deficient in calcium oxide so there is a very high demand for this product. That gentleman actually sells the product throughout France.

SENATOR VIBERT:           Do we know whether Jersey has this kind of land?

SENATOR LE MAISTRE:       Yes, it is acid.

SENATOR VIBERT:           Acid, is it?

### **Conversation in French**

SENATOR VIBERT:           Can I have that? Can you tell me what the answer was?

SCRUTINY TRANSLATOR:       He is saying that he would anticipate that Jersey would have a high demand because it does have a deficit of lime in the ground.

SENATOR VIBERT:           But, if not, we could export it to France and they could use it?

MR MAROUFI:               I just want to add that Mr Alain Marie is the President of the group ... (indistinct) ... has 25 shop centres all over France and so he can sell this product to the farmers.

SCRUTINY TRANSLATOR:       So there is no problem exporting it.

MR MAROUFI:               Yes.

DEPUTY RONDEL:           Carry on, please?

### **The presentation continued**

SCRUTINY TRANSLATOR:       So, in effect, the plant doesn't really use very much energy because it is just low energy conveyer belts and the lime actually produces energy through its production.

SENATOR VIBERT:           Do they have a photograph of the external of the plant?

### **Conversation in French**

SENATOR VIBERT:           I have seen the catalogue. That's fine.

### **Conversation in French**

SCRUTINY TRANSLATOR: 5,000 square metres.

DEPUTY RONDEL: For an 80,000 tonne plant.

SENATOR VIBERT: That's small.

### **Conversation in French**

SCRUTINY TRANSLATOR: A particular pilot scheme that they have got operating takes 35,000 tonnes a year. It does the waste, the household waste, for the local communities to help them out, but the test plant was actually set up to do the slurry waste, the clean slurry and green waste, but they do take the household waste from the area as well.

SENATOR VIBERT: And we can visit that plant?

SCRUTINY TRANSLATOR: And you can visit that plant. If you were to go in the morning and stay until the late afternoon, you would see the whole process from arrival to the end product.

SENATOR VIBERT: Where is the nearest airport?

SCRUTINY TRANSLATOR: Poitiers.

DEPUTY RONDEL: Deputy Duhamel?

DEPUTY DUHAMEL: Are there any problems with adding in painted woods to the waste stream?

SCRUTINY TRANSLATOR: It depends on the amount of painted wood that goes into the system. If it is a low percentage, then it doesn't pose a problem, but they do load by load assessment of the mix. It is important to recognise that a lot of the products they receive, actually a lot of the waste products, have a resalable value and this is actually a very large growing area and the waste products are actually a commodity now that is used widely in industry. Previously, all the plastics used to go to incineration, whereas now there is demand in Asian countries and lots of other construction industries and outlets like that are demanding products.

DEPUTY RONDEL: Any further questions or information?

MR MAROUFI: I would just to invite you over to visit the pilot plant in Poitiers very soon because you can see exactly what the process is. (Makes statement in French)

SCRUTINY TRANSLATOR: Obviously they are extending an invitation for you to go and meet

political leaders in the area with some of the agriculturalists that are using the product that they produce and obviously to see the plant which is in Poitier.

SENATOR VIBERT: Can I ask how many people are required to operate the plant?

SCRUTINY TRANSLATOR: About 15 to run what we would require of 80,000 tonnes. That would be two eight hour shifts.

### **Conversation in French**

SENATOR VIBERT: How skilled do the staff have to be? How long would it take to train them?

SCRUTINY TRANSLATOR: So you need three or four technical people. You need a mechanic and an electro-mechanic and an electrician and then the rest of the people are taken on and they are trained to do the specific jobs that they are being asked to do.

SENATOR VIBERT: What kind of breakdowns do they have? Have they taken a record of the breakdown times?

SCRUTINY TRANSLATOR: It is very robust machinery so there is a very little breakdown time. They do have the stats but they are very, very low stoppage. The cost of actually operating the plant is very low because it is such robust and low-tech machinery.

DEPUTY RONDEL: Any other questions? No. Have you anything else to present to us, gentlemen?

MR MAROUFI: We can add that the machinery in France ... (indistinct) ... this process is absolutely safe, so that is very important.

SENATOR VIBERT: Sorry, there is one more question, if I may. We would require some pretty strong financial guarantees of the soundness of the company being able to complete the job and get it up and running. Would the company be concerned about what guarantees they were able to give us?

SCRUTINY TRANSLATOR: They have significant funds available to them. The company has significant funds available and they would be prepared to guarantee the plant and product and any other guarantees that were required.

SENATOR VIBERT: Second question, if, for instance, the Island was to accept this technology

and put a plant in, would they be prepared to provide a commission to the people of Jersey if they used it as a reference plant and were able to sell plants from it?

SCRUTINY TRANSLATOR: Very smart question. That was the answer.

DEPUTY RONDEL: That was the answer to it. Senator Le Maistre?

SENATOR LE MAISTRE: Can I ask? (Holds conversation with all three French representatives)

SCRUTINY TRANSLATOR: No shortage of offers to become part of a pilot scheme.

SENATOR LE MAISTRE: Can I ask another question?

DEPUTY RONDEL: Carry on.

SENATOR LE MAISTRE: (asks question in French).

SCRUTINY TRANSLATOR: So the maximum construction time from the point of all the planning, permissions having been received, would be, at the outside, one year, at the outside. Eight months is anticipated, but one year at the outside.

SENATOR VIBERT: So it take it that all they need is in fact a concrete platform on which they would then build a structure?

SCRUTINY TRANSLATOR: Yes, that is correct. The benefit is that Mr Martin is responsible for the project development, the product development and the PR side of things if you like, and the other gentlemen are responsible for marketing the end product and making the plants work, basically building and all that side of it. So the two teams work very well together and they can run it in its entirety or provide training or anything that is required to operate it in accordance with what is needed.

SENATOR VIBERT: One final question that really is most important. Does Poitier have a casino?

SCRUTINY TRANSLATOR: Yes.

DEPUTY RONDEL: Are there any other questions, gentlemen?

SCRUTINY TRANSLATOR: But no gambling in the factory.

DEPUTY RONDEL: If there are no further questions, I would like to thank you on behalf of the Scrutiny Panel for attending and giving us your time. I am sure some members will take up the opportunity of visiting your factory. Thank you.

