Brief of Evidence: Matt Twor Dublin Waste to Energy Proj

OH Sub No. 1(a)

Recd From: Dublin City Council.

1. Introduction

My name is Matt Twomey. I am one of five Assistant City Managers and I have delegated responsibility for the Environmental and Engineering Services for Dublin City Council. These services include Water Services, Waste Management Services, Fire and Emergency and are all delivered on a regional basis. I have held this position since September 1997.

I have worked with Dublin City Council or Dublin County Council for 40 years.

I chair the Regional Steering Groups which are made up of Senior Officials from the four Dublin Authorities (Fingal, South Dublin, Dun Laoghaire/Rathdown and Dublin City), which advise the four Dublin Managers on regional strategic issues together with the day to day co-ordination of the management of the services.

An Bord Pleanála granted planning approval for a waste to energy facility at the Poolbeg Peninsula (the WtE facility) on 19 November 2007.

The purpose of this statement is to give an introduction to the proposed WtE facility and the process by which the proposal for a WtE facility at Poolbeg evolved.

2. General Description of Proposed Development

The development of a waste to energy facility is a vital element of the integrated Waste Management Plan for the Dublin Region 2005 – 2011, which Dublin City Council is obliged by statute to implement.

- WTE is an integral part of European waste management policy.
- It complies with Government policy.
- It is safe and proven technology.
- It will produce electricity for 50,000 homes and district heating for 60,000.
- Energy Recovery is higher on the waste hierarchy than landfill.
- Waste to energy reinforces and enhances recycling.

The facility will thermally treat up to 600,000 tonnes of residual waste annually, which waste arises primarily in the administrative areas of the four Dublin Authorities and would otherwise go to landfill. This will produce energy to meet the needs of approximately 50,000 houses in the form of electricity supplied to the National Grid. The facility will also have the capacity to provide district heating for up to 60,000 homes in the Poolbeg and adjacent areas. The Dublin District Heating Project is now a reality, with an agreement in place with Spencer Dock, one of the largest developments in the North Docklands, to connect to the district heating network. Olivier Gaillot from RPS will be giving further detail in his statement in relation to the progress that has already been made and the plans for roll-out of the district heating system.

The four Dublin authorities are required to comply with the EU Landfill Directive and waste to energy provides a means by which they can divert waste from landfill in order to meet the requirements of the Directive. Waste to energy reduces the volume of waste by a factor of 10. During the lifetime of the WTE facility at least 200 acres of land which would otherwise be

required to provide landfill capacity for projected waste arisings in the Dublin Region will instead be saved for other more sustainable uses.

A capacity of 600,000 tonnes is required to cater for current and future waste arisings in the Dublin Area. In the event that sufficient waste is not sent to the plant from the Dublin area, any spare capacity will be available in respect of waste arising in the Greater Dublin area in line with the provisions of the Greater Dublin Strategic Planning Guidelines.

Waste to energy is wholly compatible with a strong recycling ethos. There is no danger that recycling will be crowded out or that there will be no incentive to increase recycling when an incinerator is operational. Recycling levels in the Dublin Region have risen to 40%, with source separation of household waste provided through the green bin system and the proliferation of bottle banks and recycling centres provided by the four Dublin local authorities.

The WTE project is in the interests of the people of Dublin to ensure that there will be adequate waste management capacity in the Dublin region with regard to the waste arisings projected in the Waste Management Plan.

Acceptance of sewage sludge

Some objectors have raised the issue of acceptance of sewage sludge at the facility. The waste licence application included provision for the acceptance of up to 80,000 tonnes of sewage sludge from the adjacent municipal WWTP as well as non-hazardous industrial sludges. The EPA Inspector addressed this issue in his report on the waste licence application, noting that *"There is no guarantee into the future that sewage sludge - following processing and treatment on the WWTP - will be accepted for recovery on land where livestock are kept or crops grow (Condition 1). Accordingly it is prudent to provide for the destruction of these sludges in the application and the RD for the WtE facility in the event that such recovery routes cease to become available."*

The EPA Proposed Decision permits the acceptance of sewage sludge for incineration should this be put into action. The combined tonnage associated with all waste streams is a total of 600,000 tpa, i.e. if 80,000 tonnes of sludge were to be treated at the facility, this would form part of the 600,000 tonne annual capacity limit. The acceptance of sludge would not alter the requirement to comply with all emission limits in the waste licence because the facility must comply with those limits regardless of the fuel conditions.

The An Bord Pleanála planning approval does not allow for the acceptance of sludge at the facility, but this does not preclude the EPA from including this activity in its waste licence for the facility and it has recognised that it would be prudent to do so. Furthermore, should the need arise for sludge to be accepted at the WtE facility due to recovery on land no longer being an option, this would have a beneficial impact in terms of traffic reduction in the area as there would be a reduction in trucks currently required for removal of sludge from the WWTW. Acceptance of sewage sludge would mean a further positive impact on traffic in that it would mean a reduction in the number of municipal waste trucks travelling to and from the facility.

3. Waste Management Strategy and Planning In Dublin

The Dublin Authorities were required under the Waste Management Act 1996 to prepare a waste management plan for the region. They engaged external consultants to prepare a strategy which would lead to the preparation of a waste management plan. The relevant strategy study was finalised in 1997 and the Waste Management Plan was made in 1998 and

became operative following the enactment of the Waste Management (Amendment) Act in 2001. The strategy and subsequent Plan identified a clear objective to develop an integrated waste management system which included waste to energy. This objective has been further developed in the 2005 – 2011 Waste Management Plan, which is in accordance with current Government policy. Other elements of the Waste Management Plan have already been implemented, as explained in more detail later in this submission. The WTE facility relates to a vital element of the overall Waste Management Plan for the Dublin Region.

Historically, waste management has been treated as a public health issue. Dublin City Council has been providing a waste collection service and a street cleaning service in the City for at least 200 years. The waste collection and street cleaning services are therefore public health services and the absence of a service would quickly give rise to a public health nuisance. The waste management strategy prior to the enactment of the Waste Management Act in 1996 was simply to dispose of waste through landfilling. Modern waste management planning commenced in Ireland with the Waste Management Act 1996 which sought to implement the European Directive on Waste (75/442/EEC) as amended (91/156/EEC) ("Waste Directive") and other Directives in relation to waste oils and batteries. There have been a number of amendments up to 2007 and the code (referred to as the Waste Management Acts 1996-2007 and Regulations made under those Acts) now governs waste management in Ireland.

Having considered the requirements of the Waste Management Act 2006, it was clear that Dublin City Council, together with the other local authorities, were required to make an appropriate waste management plan. The Waste Management Act provided for the making of waste management plans on a joint basis. Accordingly the four Dublin authorities combined as a region for the purpose of waste management, and Dublin City Council was appointed as the lead authority for that purpose. Dublin City Council, on behalf of the other authorities, decided to obtain the best available advice from international experts. Accordingly, the four Dublin authorities undertook a public tendering process to procure international consultants to carry out a strategy study and make recommendations for the preparation of a new waste management plan in line with the new Act and the Regulations made in accordance with the Act. The successful tenderers were a consortium of experts called MCCK, consisting of:

- MCOS
- COWI
- City of Copenhagen E.P.A.
- KPMG

The principal aims of the study, which covered technical, environmental, institutional and financial aspects, were as follows:

- To determine and assess the current waste management situation in the Dublin Region with regard to the quantity and nature of waste generated by households, the commercial and industrial sectors and other waste streams
- To recommend an integrated waste management strategy for the efficient future management of these wastes in the Region in accordance with current legislation and developing environmental policies, together with a plan for its implementation.
- To recommend the most appropriate organisational, regulatory and funding mechanisms in support of the preferred waste management strategy.

Waste management planning is a very dynamic process, with new and emerging technologies to be considered on an ongoing basis. Therefore, the study considered a long-term horizon of 15-20 years, but with short and medium term objectives and recommendations.

It was presented to the four Authorities in January 1998. In summary, it recommended:

Waste Minimisation

- Employment of Community Environmental Officers.
- New Enforcement Unit.

Waste Collection Recommendations

- Source separation and separate collection of dry recyclables.
- Provision of Bring Banks and Waste Recycling Centres.
- Source separation and separate collection of household organic waste.
- Source separation of harmful waste (e.g. batteries, oils, paints etc).
- Source separation and separate collection of commercial and industrial waste from private enterprises as well as construction/demolition waste.

Waste Recycling/Recovery and Disposal Recommendations

- The provision of additional sorting and baling facilities in the Dublin Region for recyclables collected prior to marketing.
- Provision of green garden waste depots and composting facilities.
- Facilities for the biological treatment of kitchen organic waste using composting or biological digestion processes in one or two plants serving the region.
- Provision of a central thermal treatment facility with energy recovery.
- Provision of facilities for the reception, sorting and recycling of construction/demolition waste.
- Provision of recycling facilities/treatment for dealing with other priority wastes such as packaging and harmful wastes.
- The provision of a new landfill for the region.

The Elected Members endorsed the Strategy and a decision was made to prepare the Waste Management Plan for the Dublin Region. The first Government waste policy statement "*Changing our Ways*" was published in September 1998.

The draft Waste Management Plan for the Dublin Region was prepared by MCCK and the Steering Group on behalf of the four Dublin authorities. The draft Plan, which was based on the Strategy, was put on public display in 1998 and the public was invited to make submissions in relation to it. DCC considered those submissions and made appropriate amendments to the Plan as were appropriate in light of submissions. The revised Plan was presented to each of the four Dublin authorities for adoption between late 1998 and early 1999. The Plan became operative on a regional basis in July 2001 following the enactment of the Waste Management (Amendment) Act 2001.

The Plan provided for the first time an integrated package of measures to meet the objectives as outlined which are summarised as follows.

- Separate collection of dry recyclables.
- Separate collection of biological waste.
- Provision of civic amenity / recycling centres and bring banks (glass, etc.).
- Central processing facilities for biological waste.
- Facility for thermal treatment.
- Landfill to replace existing facilities.
- Implementation of charges to comply with the EU "Polluter Pays" policy.

It should be noted that prior to 2001 when the Plan was made:

- over 90% of waste was disposed of to landfill;
- there were no public waste recycling centres;
- there was no separate collection of hazardous waste; and
- there were very few bring banks to facilitate recycling and there were no Irish markets for recyclables.

4. Replacement Waste Management Plan

In June 2004, the City Council as lead authority for the Dublin Region commenced the statutory procedure for the preparation of a replacement Waste Management Plan. This involved a two-stage consultation process. The first stage involved the invitation of submissions regarding the matters which should be considered as part of the review. A number of submissions were received by the City Council at this stage and were considered in the preparation of the draft plan. The second stage involved the invitation of submissions on the draft Plan. Following consideration of those submissions and the finalisation of the draft Plan, the current Waste Management Plan for the Dublin Region 2005 – 2010 was adopted by the City/County Manager on 11 November 2005 in accordance with his functions under the Protection of the Environment Act 2003.

The replacement Waste Management Plan which was made on the 11th November 2005 includes the following objective in relation to energy recovery:

- Develop a Waste to Energy (Incineration) plant at the preferred location on Poolbeg Peninsula, Dublin 4. This will have a capacity of approximately 400,000 to 600,000 tonnes/annum and will treat non –hazardous municipal or similar waste (at Section 18.8).

5. National Waste Management Policy

The background to the making of the Dublin Region Waste Management Plan 2001-2005 and the 2005-2010 Replacement Plan has already been outlined.

The relevant policies are contained in the following statements of Government waste policy issued by the Department of the Environment:

- Changing Our Ways – Published in September 1998
- Preventing and Recycling Waste – Published in March 2002
- Taking Stock and Moving Forward – Published in April 2004
- The National Strategy on Biodegradable Waste – Published in April 2006

This is confirmed in the most recent of these statements of policy, the National Strategy on Biodegradable Waste (April 2006) as follows:

> "*This document outlines Government policy for the diversion of biodegradable municipal waste from landfill, building upon the key objectives established in policy documents Changing Our Ways (1998), Delivering Change – Preventing and Recycling Waste (2002) and Waste Management: Taking Stock and Moving Forward (2004).*"

It also says in the introductory chapter to this policy statement:

"1.5 WASTE MANAGEMENT POLICY FRAMEWORK

Ireland's waste management policy framework has been established through a combination of Government policy statements – including the role of waste management within the broader environmental context – and local authority waste management plans. These form the basis for delivering a new national integrated and sustainable waste management system over the coming decade. The National Strategy on Biodegradable Waste is consistent with these policies."

The following extracts from the aforementioned statements of policy describe how, like the Dublin Region Waste Management Plans, national waste policy provides for an integrated approach to waste management in terms of the waste hierarchy, particularly relating to source segregation, separate collection of recyclables and biowaste and thermal treatment.

5.1.1. Statements of policy in support of waste to energy facilities

- Changing our Ways September 1998

"7.7 Waste to Energy Incineration (WTE)

7.7.1. *Mass burn WTE plays a major part in municipal waste management in many other EU countries, as well as further a field. In general, materials recycling and WTE incineration are fully compatible in an integrated approach to waste management."*

"7.7.5. *The development of WTE capacity is consistent with, and could make a significant contribution to the implementation of the Government's renewable energy policy which currently aims to increase the share of renewable energy to 10% of the country's installed electricity generating capacity by the year 2000, with subsequent increases to be delivered in a programme which will be the subject of a forthcoming Green Paper on sustainable energy."*

- Taking Stock and Moving Forward April 2004

"Key Point 10

Thermal treatment, with energy recovery, has a role to play as one element in the integrated approach to waste management; facilities will be subject to stringent controls through licenses issued by the EPA and through subsequent licence enforcement and facility monitoring. In order to provide better information in relation to thermal treatment (and other aspects of waste management), fact sheets will be published in May 2004 as part of a more comprehensive information package under the Race Against Waste campaign."

- National Strategy on Biodegradable Waste April 2006

"9.5.1 Thermal Treatment

Thermal treatment with energy recovery in accordance with the internationally-accepted waste management hierarch is a key element of Irish waste

management policy. The 10 Waste Management Plans for the regions/counties of Ireland recognise this integrated policy role of thermal treatment and facilities have been proposed by local authorities for the treatment of residual waste within 6 of the regions. This method provides a robust technology for dealing with mixed residual waste, and forms a necessary element in the integrated Waste Management Plans of the six regions, similar to models from other EU countries such as Germany, Belgium, Holland, Austria and Denmark."

5.1.2. Statements of policy in support of source separation and separate collection systems

- Changing Our Ways September 1998

"7.3 Alternative Collection systems

7.3.1 *The type of collection system employed must reflect the recycling scenario which is to be pursued. For instance, a significant proportion of municipal waste is organic material – either separate or alternate bin collection is necessary to allow this material to be efficiently segregated and diverted to a central composting facility. Different approaches may be utilised in order to segregate materials for recovery purposes, including-*

- *the use of multiple bins or other containers,*
- *alternate collection schedules,*
- *"bring" systems (e.g. bottle banks),*
- *reliance on civic amenity facilities, and*
- *"kerbside" collections systems."*

- Preventing and Recycling Waste March 2002

"5.1 The Challenge of Promoting Recycling

- *better separation and sorting of waste at source, allied to segregated collection, to provide cleaner waste fractions and single material waste streams;"*

"5.4 Source Separation and segregated collection

Regional waste management plans generally provide for the development of segregated household waste collection services in all major urban areas. Householders will be required to segregate their waste into a number of distinct types of material waste. Initially, this will involve the segregation of specified dry recyclables and residual waste (i.e. non dry recyclables) in separate receptacles. When biological treatment facilities are available, biodegradable kitchen and garden waste will also be segregated and separately collected. Further source separation requirements (e.g. in relation to household hazardous wastes) may also arise in the longer term."

- National Strategy on Biodegradable Waste April 2006

"5.2 Strategy Principles

- *emphasis on source separation of biodegradable wastes by the producer, followed by separate collections by the collector, enabling high quality recyclables to be recovered;"*

"5.4 Key Waste Streams

Paper and Cardboard
Waste paper and cardboard that cannot be reused should be segregated and collected separately for recycling."

"Separate collection of biowaste will also be required, together with the provision of composting facilities for garden waste and centralised biological treatment facilities for food waste."

"8.3.1 Households and Communities

Separate collection of organic waste will be required in all suitable urban and rural areas as part of an integrated collection system."

It will be seen from the above that the source segregation and separate collection of dry recyclable waste and biological waste is in line with national policy.

5.1.3. Statements of policy in support of an integrated approach to waste management

- Changing Our Ways September 1998

"7.4.3 *No one solution can address all waste management requirements; consequently, the emphasis of this policy statement is on integrated waste management."*

- Taking Stock and Moving Forward April 2004

"Key Point 1

The policy approach will remain grounded in the concept of integrated waste management, based on the internationally recognised waste hierarchy, designed to achieve, by 2013, the ambitious targets set out in Changing our Ways."

- National Strategy on Biodegradable Waste April 2006

"4.2 INTEGRATED MIX OF TREATMENT OPTIONS

Countries that have succeeded in diverting large quantities of BMW from landfill employ the following alternative treatment options simultaneously:

- *materials recycling for paper and cardboard waste;*

- *central composting, mainly for garden waste and, to a lesser extent, for food waste; and*
- *thermal treatment for residual "mixed" (or "bagged") waste.*

High recycling rates for paper and cardboard waste have been achieved by providing widespread separate collection systems. Access to paper reprocessing mills is generally available.

Countries with substantial central composting, mainly treat garden waste and, to a lesser extent, food waste. Anaerobic digestion is also in use, but to a much lesser extent. Countries producing high quality compost / digestate all have extensive separate collection systems, well-established quality assurance schemes for compost, and compost standards.

Finally, all countries with high landfill diversion rates use thermal treatment for a considerable proportion of traditional, "mixed waste" collection of BMW. Thermal treatment is mainly incineration with energy recovery."

5.2. Other relevant statements of policy

5.2.1. National Development Plan

The National Development Plan 2007 – 2013 also sets out Government policy in regard to thermal treatment and the following extract from page 145 is relevant. The Plan was published in 2007.

"*Thermal Treatment*

There is a need to continue to reduce reliance on landfill as a method of waste disposal. From an environmental perspective, landfill has many disadvantages, and to reach the diversion from landfill targets required by the EU Landfill Directive. In line with national policy on the integrated approach to waste management, thermal treatment with energy recovery will be the preferred option for dealing with residual waste after achieving ambitious targets in respect of waste prevention, recycling and recovery. This is reflected in the regional waste management plans for which the local authorities have statutory responsibility. These waste to energy plants will be provided as entirely private sector developments or by way of public private partnership. In the case of the Dublin Region, the relevant authorities are proceeding by way of public private partnership for which the necessary regulatory approvals are being sought. Other Regions are at earlier stages in the process."

5.2.2. "Ireland's Progress towards Environmental Sustainability – The National Development Plans 2000-2013: Achievements to date and key challenges ahead"

This document was published by the Department of the Environment, Heritage & Local Government in conjunction with the National Development Plan. It identified in section 4 the following "*key challenges*" in relation to waste management;

***"A fully integrated waste management structure**: Not all waste can be recycled. Best international practice favours waste-to-energy treatment in preference to landfill. A number of waste-to-energy facilities are at various stages of the planning and waste*

licensing process. These are necessary so that Ireland can have a fully integrated waste management structure based on the internationally adopted hierarchy which places greatest emphasis on prevention, followed by minimisation, re-use, recycling and energy recovery, with landfill used only for the final residual waste.

***Biodegradable Waste**: The Landfill Directive requires a reduction in landfilling of biodegradable waste to 35% of its 1995 level by 2016. This reduction represents a significant challenge. Building on Ireland's recent successes in this area, the Department, along with its partners in the local authorities are rolling out actions under the National Strategy for Biodegradable Waste, which will guide us towards meeting this demanding target.*

***Waste Prevention**: While waste recovery and recycling rates have improved dramatically over the past number of years, overall waste generation remains stubbornly high. From an environmental perspective, waste prevention is preferable to recovery or recycling. A National Waste Prevention Programme has been established and is being headed by the EPA to progress what can be achieved domestically and the Department is in continuous discussion with its EU counterparts to discuss community-wide approaches."*

5.3. Waste Framework Directive

Finally, the member states of the European Union have considered and accepted a proposal of the Commission to classify waste to energy facilities with energy efficiency over a certain threshold as a waste recovery activity.

The Commission is proposing, as part of an amendment to the Waste Framework Directive (Directive 2006/12/EC of the European Parliament and of the Council), to include an energy efficiency threshold above which municipal incineration will be considered a recovery operation.

On 8 April 2008, MEPs backed proposals to class incineration as "recovery" under the Revised Waste Framework Directive from its second reading in the European Parliament. Members backed the Commission and Council position that incineration it should be categorised as recovery operation, provided they met a certain energy standard, set through a formula.

6. Mechanical-Biological Treatment

The four Dublin authorities have carefully considered alternative technologies before adopting its Waste Management Plans, including the possibility of using Mechanical-Biological Treatment (MBT). MBT provides for mechanical and biological treatment of mixed wastes as a pre-treatment to landfill. The end-products of MBT usually include:

- A dry residue (Refuse Derived Fuel / RDF), which is usually sent for energy recovery by incineration or to cement kilns where it is co-combusted with other fuel.
- An organic residue, similar to compost but with a higher degree of contamination and impurities, making it unsuitable for high-grade applications. It is most often used as a landfill daily cover.

MBT was considered in the National Strategy on Biodegradable Waste April published in 2006:

"2.2.6 Mechanical-Biological Treatment

Mechanical-Biological Treatment (MBT) is a treatment process which can be used to stabilise and reduce the quantity of waste that is consigned to thermal treatment or landfill. MBT generally involves the stabilisation of the biodegradable material in a biological stage, together with the separation of mixed waste by mechanical means using shredders, screens, gravity separators, air classifiers, magnets and other devices. The organic material recovered by MBT typically emerges as a low quality material – "stabilised biowaste" – that has limited applications. Some recyclable materials are recovered from the MBT process, but the majority of the residue is usually sent to energy recovery, or to landfill.

MBT can provide an outlet to limit the quantity of biodegradable municipal waste which ultimately needs to be sent to landfill and capacity developed should be suitable for the treatment of source-separated organics in the future."

"*Any MBT capacity developed should be compatible with treating source-separated organics in the future. A clear distinction will need to be made by regulatory authorities as to permissible uses of MBT-derived "stabilised biowaste" outputs such that it does not counteract the development of markets for high quality compost.*"

It should be noted also that a lifecycle analysis carried out by Ramboll of Denmark and peer reviewed on behalf of the South East Region of Waste Management scenarios including MBT concluded as follows

"*A waste management scenario with a thermal treatment option is the preferred option from an environmental perspective. Accordingly, it is necessary for thermal treatment operating the best available technology to form part of the integrated waste management approach*". (Source: Joint Waste Management Plan for the South East Region)

The four Dublin authorities have decided to pursue a policy of source separated organic waste to make clean compost, ensuring that a significant portion of the organic waste will be removed from the waste stream. The procurement of the two Central Biological Waste Treatment Facilities has progressed to the point where tenders for the Kilshane Facility in Fingal and the Ballyogan Facility in Dun Laoghaire/Rathdown have been received and are being assessed. The Dublin authorities consider that this approach offers the best chance for the development of a sustainable market for good quality compost/ treated organic waste. Generally the compost produced from MBT is of lesser quality and difficulties could arise in obtaining suitable outlets for the biological fraction.

The four Dublin authorities consider that MBT is not an alternative to WTE and is not necessary for compliance with the requirements of the Landfill Directive in the Dublin Region. Accordingly, the Dublin authorities have decided to opt for waste to energy.

7. Implementing the Waste Management Plans in the Dublin Region

There is a statutory obligation on the Dublin local authorities under section 22(12) of the Waste Management Act (as amended) to attain the objectives of the Waste Management Plan. The Protection of the Environment Act 2003 made the making and amendment of a Waste Management Plan an executive function to be performed by the Manager.

The four Dublin authorities, are implementing the Waste Management Plans through a number of integrated measures and services designed to achieve the objectives of the EU waste hierarchy which focuses in descending order on prevention; reduce & reuse; recycling; energy recovery; and disposal (landfill).

7.1. Range of Services

The range of waste management services provided by the Dublin Local Authorities is as follows:

- Door-to-Door collection of residual waste (weekly grey/black bins and bags)
- Door-to-Door collection of dry recyclables (green bin/bag)
- Door-to-Door collection of bio waste (brown bins - pilot project started in Fingal and Dublin City Council)
- Bottle Banks
- Community Bring Centres
- Recycling Centre.
- Green Waste Collection Centres (incl. Christmas trees).
- Bulky Household Waste Collection (variable frequencies).
- Street Cleaning and Litter Service.
- Cleaning of areas subjected to dumping.
- Services provided free by waiver to necessitous families.
- Recycling services at no cost to schools.
- Separate collection of commercial cardboard (in Dublin City only).
- Separate collection of dry recyclables from commercial customers (in Dublin City).

7.2. Prevention

Local authorities have limited powers with regard to the prevention of waste. Waste prevention policies are generally implemented at national and international level. The *Preventing and Recycling Waste* policy document issued by the Department of the Environment in March 2002 introduced a national approach to waste prevention and put arrangements in place to improve performance in relation to prevention. This initiative clearly accepts that the ability of householders in particular or local authorities to influence waste arisings is limited and indeed, the lack of progress on waste prevention is now seen to be a European wide phenomenon. The other initiatives that the local authorities in Dublin have engaged in to promote and support prevention include:

- Support for local Race Against Waste campaign.
- Environmental Awareness campaign
- The establishment of a new Free Trade facility as part of award-winning website dublinwaste.ie.

7.3. Reduce / Reuse

Employment of Environmental Awareness Officers by all the authorities has had a significant impact on co-operation with schools, businesses and householders in relation to changing the ways in which we manage waste.

In addition, a new website dublinwaste.ie was established and is operating very successfully on a regional basis and is widely used by the public. During 2006 there were 360,000 hits

approximately. The features include a recycling search engine which has details of all recycling centres/bring centres in Dublin. There is a continuing consultation with the public by way of a forum and an e-mail (16,000 e-mails – 2006) and hotline (1,2000 phone calls – 2006) facility. The online forum has a discussion topic each month including the taking of polls on various issues.

An additional Free Trade facility was setup in August last year as part of dublinwaste.ie and has established a successful mechanism for the exchange of useful items between householders, etc. This facility was started in August 2006 and to date 7,000 members have registered and about 3,000 items were reused by way of the free of cost exchange directly between members. In 2007 dublinwaste.ie and the Free Trade facility won an "Eircom Golden Spider Award" for its achievements online as well as a Taoiseach's award. The website has also been nominated as Irish entry for an EU environmental award to take place in October of this year.

A charging system for waste collection and disposal was introduced on a pay by use basis by the four Dublin authorities which is designed to encourage recycling by basing the charge on the contents of the grey/black bin.

An Enforcement Unit has been established in each of the local authorities and a small regional unit was established to deal with major illegal dumping of waste.

Dublin City Council as Nominated Local Authority for the four Dublin Local Authorities for the purposes of the Waste Management (Collection Permit) Regulations 2007 is responsible for issuing Waste Collection Permits for the Dublin region. Collection Permits are granted subject to conditions, which are designed to ensure that a proper and effective waste service is in place and to provide for the proper management of waste collection and recovery/disposal activities. Each individual local authority also operates a permitting system in relation to waste facilities.

Section 34 of the Waste Management Act 1996 (as amended) provides that it is an offence to collect waste save in accordance with a permit. Dublin City Council also has powers of enforcement under sections 57 and 58 of the Waste Management Act which enable the Court upon application to it to grant injunctions for the purposes of the enforcement of waste law.

7.4. Recycling

7.4.1. Dry Recyclables

The door-to-door dry recyclable collection was rolled out across the Region following a procurement procedure in the year 2000. The service is based on a monthly collection of dry recyclables in a green bin with the processing being carried out at a central Materials Recovery Facility where the materials are sorted, baled and prepared for marketing. The Service Provider selected following the public procurement procedure provides the collection, processing and marketing service on a cost per household basis. At the end of 2006, the service was provided to the following in the Dublin Region.

Household Bins	357,338
Household Bags	18,273
Apartment Households	25,137
Apartment Sites	684
Schools	542

The materials collected during the year were as follows:

Aluminium Cans	Mixed Card and paper	Steel Cans	News and Pams	Over Issue News	Beverage Cartons	Residue	Total '06
504	38,350	1,367	19,575	3,239	155	4,650	67,840

Bring Centre/Civic Amenity Centres

The materials collected through the Bring Centres / Civic Amenity Centres for the Region in 2006 are as follows:

Materials in 2006	Total (tonnes)
Glass	15252
Paper/Cardboard	4398
Plastic	1802
Cans	405
Textiles	1533
Batteries	193
Green Waste	8807
Flat Glass	94
Tetrapak	116
Aerosols	11
Paint	384
Steel	1119
Bulky Waste	4595
WEEE	2818
Fridges	147
Wood	2735
DIY Rubble	1710
Oil	28
Gas Cylinders	23
Hazardous Waste (not specified)	107
Total	46,277

Number of Recycling Centres/Bring Centres

Recycling Centres - 20
Bottle Banks/Bring Centres - 277

Mobile collection for hazardous waste in various locations

As will be seen from the foregoing, the necessary infrastructure is now in place to provide a fully segregated kerbside collection for the Region. However, this is based on the service Provider providing the bins, the processing equipment and the renting of a Materials Recovery Facility (MRF). So that the Region would be independent and have a sustainable recycling service going forward, arrangements were made to procure a site and suitable building in order to provide a central MRF for the Region. A six acre site with an existing building was purchased at Ballymount in the South Dublin Administrative Area, and work has recently commenced on adapting the building to meet the needs of the Region. A separate procurement procedure was initiated to acquire processing plant and equipment with a throughput capacity of 100,000 tonnes per annum approximately. The new Waste

Management Plan has an objective of collecting plastic bottles in the green bin and with the appropriate equipment for sorting these materials is now on order. The collection of these materials can proceed on an interim basis as the materials can be disposed of unsorted, pending the availability of the new MRF and the new sorting equipment. The roll out of the new service commenced on the 1st May 2007, and this will also necessitate a change in the frequency of collection from a four week to a two weekly cycle. It is expected that this change will also facilitate the inclusion of additional materials which might otherwise go to landfill. It is expected that the new MRF and equipment will be operational later this year at which stage there will be a fortnightly green bin/bag collection for the entire region.

Together with the 16,000 tonnes of biosolids (dried sludge) arising from households in 2006 which was recycled to tillage land in Leinster, it will be seen from the above that over 130,000 tonnes of materials arising from households in the Dublin Region were recycled in 2006, which represents close to a 30% recycling rate. This is a solid performance.

7.4.2. Biological Treatment of Waste

The roll out of the separate collection for household kitchen and garden waste has commenced with pilot projects in Fingal County Council and Dublin City Council. The Waste Management Plan has as its objectives the provision of two biological treatment facilities at sites identified at Ballyogan in Dun Laoghaire Rathdown County Council and Kilshane in Fingal County Council.

8. Measures to Ensure the Prior Segregation of Waste

8.1. Definition of Residual Waste

Condition 1.6 of the EPA's Proposed Decision on the waste licence for the WTE provides that *"Only residual wastes shall be incinerated at the facility."*

Residual Waste is defined in the Proposed Decision as follows:

"Residual Waste in the context of intake to an incinerator/WtE plant, is waste that has been subjected to pre-treatment (including inter alia[1], pre-segregation, sorting, mechanical-biological treatment) to extract to the maximum, practical and available extent having regard to BAT, the recyclable/reusable components".

It is clear therefore that only waste that has been subjected to a method of pretreatment (including any, and not necessarily all, of the methods mentioned in the definition) may be incinerated at the facility. Such pre-treatment must extract the recyclable / reusable components to the maximum practical and available extent having regard to Best Available Techniques.

8.2. Government and Local Authority Policy

As stated in DCC's submission to the EPA on third party objections, this requirement that only waste that has been subjected to a method of pre-treatment may be incinerated at the facility is consistent with current Government and local authority practice and policy of pre-segregating and sorting waste through the three-bin system.

[1] The latin term *"inter alia"* means *"among other things"*

The EPA Inspector's Report also notes (at paragraph 7, page 13) that *"the proposal complies with the objectives of the EU waste hierarchy by recovering energy from waste and reducing the amount of waste sent for final - and the least preferred option - disposal to landfill ... The proposal does not conflict with Government policy on waste management."*

The Government policy document "Delivering Change – Preventing And Recycling Waste 2002" defines residual municipal waste as *"the fraction of municipal waste remaining after the source separation of municipal waste fractions, such as food and garden waste, packaging, paper and paperboard, metals, glass, and unsuitable for the production of compost because it is mixed, combined or contaminated with potentially polluting products or materials".*

As mentioned above, the Waste Management Plan for the Dublin Region 2005-2010 sets out specific policy objectives for both household and commercial/industrial wastes, including the provision and continual expansion of source segregated (three-bin) systems for the separate collection of both dry recyclables and organic wastes. The provisions of the Plan for a three bin source segregated collection system are consistent with the definition of residual waste and requirements in relation to pre-treatment as set out in the Proposed Decision. These provisions are implemented and are enforceable through local authority bye-law.

8.3. Bye-laws and Waste Collection Permits

The Dublin local authority waste bye-laws for the storage, presentation and collection of waste implement the objectives of the Waste Management Plan, including the three-bin system and the separate collection of dry recyclables and organic waste for recycling. The bye-laws of the Dublin local authorities, in accordance with national policy and the Dublin Waste Management Plan, associate the term "residual waste" with waste remaining following pre-treatment by methods such as source separation.

In particular, the Dublin City Council Bye-Laws for the Storage, Separation at Source and Presentation for Collection of Household Waste define residual waste as *"that fraction of household waste remaining after the dry recyclable waste fraction has been removed and, in respect of household premises provided with a door-to-door collection service for biowaste, that fraction of household waste after the dry recyclable waste fraction and the biowaste fraction have been removed. Residual waste excludes hazardous waste, bulky waste, fats, oils, grease, electrical waste, electronic waste and glass".*

Separation at source is defined in the Dublin City Council Bye-Laws as *"the sorting of waste at household premises into a dry recyclable fraction and a residual fraction. In respect of household premises provided with a door-to-door collection service for biowaste, 'separation at source' means the sorting of waste into a dry recyclable fraction, a biowaste fraction and a residual fraction and the expression "separate at source" shall be construed accordingly."*

These definitions are again consistent with the definition of residual waste and the requirements in relation to pre-treatment as set out in the Proposed Decision.

Bye-law 2 of the Dublin City Council Bye-Laws for the Storage, Separation at Source and Presentation for Collection of Household Waste states as follows:

2. ***SEPARATION AT SOURCE OF WASTE.***

2.1 A holder shall separate at source dry recyclable waste. The dry recyclable fraction shall be stored separately by the holder in an appropriate waste container.

2.2 An authorised waste collector who is providing a household with a door-to-door collection service for residual waste shall make available to that household a separate door-to-door collection service for dry recyclable waste.

2.3 A holder shall separate at source biowaste, if a door-to-door collection service of such waste is provided. Where such a collection service is provided, the biowaste fraction shall be stored separately by the holder in an appropriate waste container.

2.4 After the separation at source takes place in accordance with Bye-Law 2.1 and, if appropriate, Bye-Law 2.3 a holder shall ensure that residual waste is stored separately in an appropriate waste container.

Bye-law 3.2 provides that *"A holder shall only present waste for collection in an appropriate waste container and shall deposit no other waste for collection in a waste container other than that fraction of waste applicable to that container."*

Bye-law 3.5 further provides that *"A holder shall present all dry recyclable waste, residual waste and, if appropriate, biowaste for collection in a prescribed place in appropriate waste containers or in another manner approved by the Council."*

With regard to enforcement, bye-law 4.2 states that *"If any person contravenes any provision of these Bye-laws, the Council may [...] serve on such person a Fixed Payment Notice, specifying a fixed payment, as an alternative to a prosecution for such contravention."* It is an offence to contravene a bye-law and as such if a holder or collector is found guilty they may be fined, or subject to a prosecution.

Similar conditions are provided for in the South Dublin County Council and Fingal County Council Bye-Laws.) The statutory process for introduction of similar bye-laws in Dun Laoghaire Rathdown County Council is now at an advanced stage.

The system of waste permitting operated by Dublin City Council ties in with the bye-laws described above. The Waste Collection Permits issued by Dublin City Council to waste collectors contain a condition providing that the permit holder *"shall not collect waste from holders unless it has been presented in accordance with the requirements of the bye-laws in force in a particular local authority area."*

Further, the Waste Collection Permit obliges the waste collector to be *"familiar with the requirements placed on holders of household or commercial waste arising from any bye-laws made under section 35 of the Waste Management Act 1996"*.

The Dublin local authorities will adopt a two-fold approach to ensuring systemic supervision of both householders and waste collectors to ensure proper segregation of waste. Firstly, they will provide that the Awareness Officer includes in its Awareness Campaign reference to the need for people to segregate material and to ensure that problematic waste / WEEE is not allowed to enter the municipal waste stream. Secondly, the Litter Warden Service will be utilised to conduct spot-checks on both a citywide level and on selected areas and/or streets.

8.4. Segregation by Householders

The Dublin authorities will ensure that through a process of Environmental Awareness and Education programmes, householders will continue to segregate waste at source, by using the three-bin system.

The abstraction of harmful wastes at source is also a requirement of the Bye Laws made by Dublin City to regulate the storage, presentation and collection of waste.

Householders will continue to be incentivised to separate out recyclable waste through the imposition of usage charges on the black-bin, and through free recycling services for hazardous wastes at bring facilities.

The Dublin authorities will continue to provide for bulk waste collections, as outlined previously in my submission.

8.5. Obligations of waste collection operators

All waste collection operators will be governed by waste collection permits and may be subject to enforcement action for non-compliance with those permits.

The waste collection operators will enter into contracts directly with the Service Provider (PPP Co) which will require that only waste acceptable at the facility shall be delivered to the facility, and the waste collection operators will be subject to financial penalties if they breach that provision of their contract.

8.6. Obligations of PPP Co

PPP Co will be required to spot-check waste in an inspection and quarantine area within the facility. In addition, the crane operators who are responsible for the deposit of waste into the waste burners will be able to continuously monitor waste in the bunker.

The Waste Licence Application stated as follows in relation to the waste quarantine areas:

> ***"D.1.h Waste quarantine areas***
>
> *A waste inspection/quarantine area will be located within the waste reception hall and will comprise of a dedicated impermeable area with all drainage directed for use as process water within the Facility. The inspection/quarantine area will be of a suitable size for the inspection of waste and the subsequent quarantine where required. Here the waste lorry unloads the waste and a skilled person will perform visual inspection of the waste.*
>
> *If the waste is accepted, it will be transported to the waste bunker.*
>
> *If the waste is refused, the waste collection company will be responsible for removing the waste from the waste inspection/quarantine area.*
>
> *In addition to the provision of a waste quarantine area the following procedures will be conducted on site.*
>
> - *In the waste supplier contracts, it will be specified which incoming waste will be accepted at the Facility.*
> - *In the reception hall regular spot checks of the waste will be performed. If a waste load contains non-conforming waste the whole load will be refused.*
> - *Metal parts or other unsuitable waste parts, unloaded into the bunker, will be removed from the bunker and put into a container in the reception hall awaiting appropriate disposal."*

Condition 3.5 of the EPA Proposed Decision requires the provision of a waste inspection and quarantine area, and states as follows:

> *"Waste Inspection and Quarantine Areas*
>
> *3.5.1 An impermeable Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the facility.*
>
> *3.5.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection and waste quarantine areas shall be clearly identified and segregated from each other, and quarantined waste shall be appropriately stored and clearly labelled."*

Condition 8.2.3 provides that, prior to commencement of waste acceptance at the facility, the licensee must establish and agree with the Agency, detailed written procedures for the acceptance and handling of wastes, to include:

> *"(a) Waste inspection at the point of entry to the facility and waste characterisation and waste profiling from known customers or new customers accepted at the materials recovery facility and incinerator plant."*

PPP Co will also be required to comply with the stringent emission limits imposed by the EPA in its waste licence, failing which it will be subject to enforcement action including fines by the EPA.

In summary, the following is the position:

Householder	Waste Collection Operator	PPP Co
Awareness and Compliance with legislation	Monitoring and complying with waste collection permit	Spot Checks in Inspection & Quarantine area – return of unacceptable loads
Source Separation	Compliance with contractual obligations with PPP Co	Enforcement of contracts with waste collection operators
Three bin system/ Separate collection	Spot Checks	Compliance with EPA licence limits
Using recycling Centres and Bring Centres		Enforcement by EPA
Availing of Bulk Waste Collection		Possible financial penalties under proposed project agreement
Recycling hazardous waste and WEEE		

9. The Poolbeg Waste to Energy facility

In simple terms, the proposed facility will thermally treat up to 600,000 tonnes of residual waste annually arising primarily in the administrative areas of the four Dublin local authorities. This will produce energy to meet the needs of approximately 50,000 houses in the form of electricity supplied to the National Grid. As mentioned in the introduction, the facility will also have the capacity to provide district heating for up to 60,000 homes in the Poolbeg and adjacent areas. The 1997 Strategy Report recommended a central thermal treatment facility be provided for the Region and the 1998 Waste Management Plan had as one of its objectives the provision of

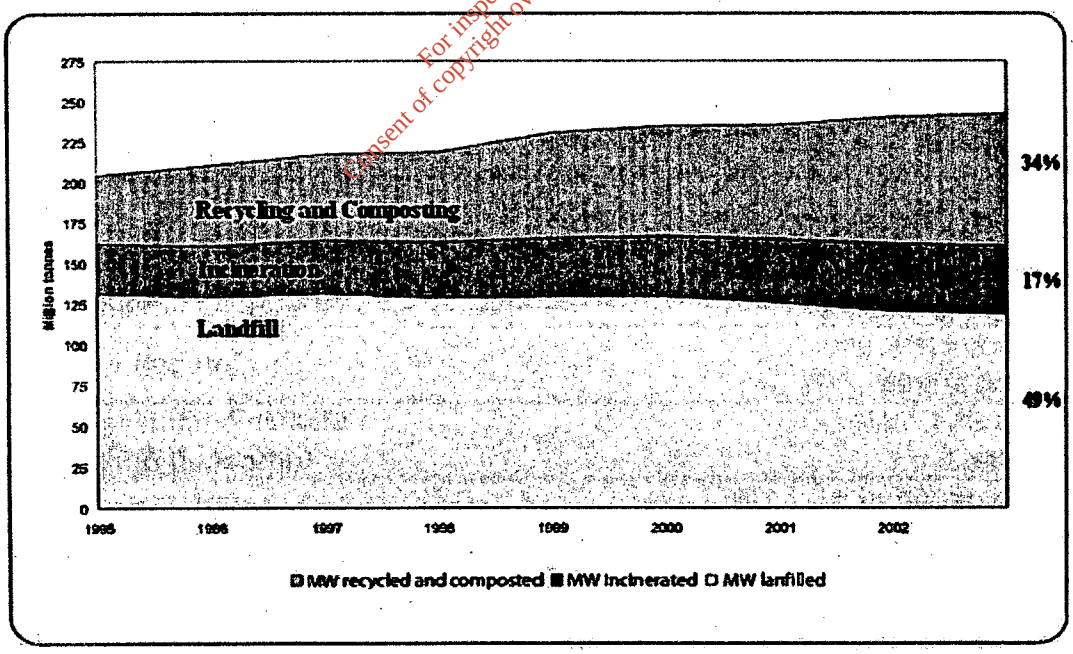
a thermal treatment facility for the Dublin Region. The procurement of the facility was by way of a public/private partnership and the guidelines laid down by the Department of Finance for such projects have been followed. Further detail in relation to the procurement process is provided later in this statement.

Prior to the invitation of bids a public sector benchmark was prepared by the City Council and approved by the DoEHLG and an Affordability Cap was fixed by the Department. The guidelines provide that the public sector benchmark is not made known during the procurement process and accordingly cannot be divulged until negotiations with PPP Co are completed following the completion of the statutory approval phase (i.e. planning approval, waste licence and electricity generation licence).

The Client's Representative (RPS) was retained in 2001 to advise the Dublin Authorities on the procurement and planning aspects of the project. Feasibility studies were carried out in 1999 with a view to establishing how the project might proceed in Dublin. A site selection study was carried out to identify a suitable site. The procurement of a service provider was progressed at the same time as the relevant documentation for the statutory procedures was being prepared and approved by the appropriate agencies.

Waste to energy is wholly compatible with a strong recycling ethos and infrastructure. There is no danger that recycling would be crowded out or that there will be no incentive to increase recycling if and when an incinerator is operational. This is demonstrated by considering the position in Europe in this regard and attached extract which shows how municipal waste is treated in EU member states.

Treatment of municipal waste in EU

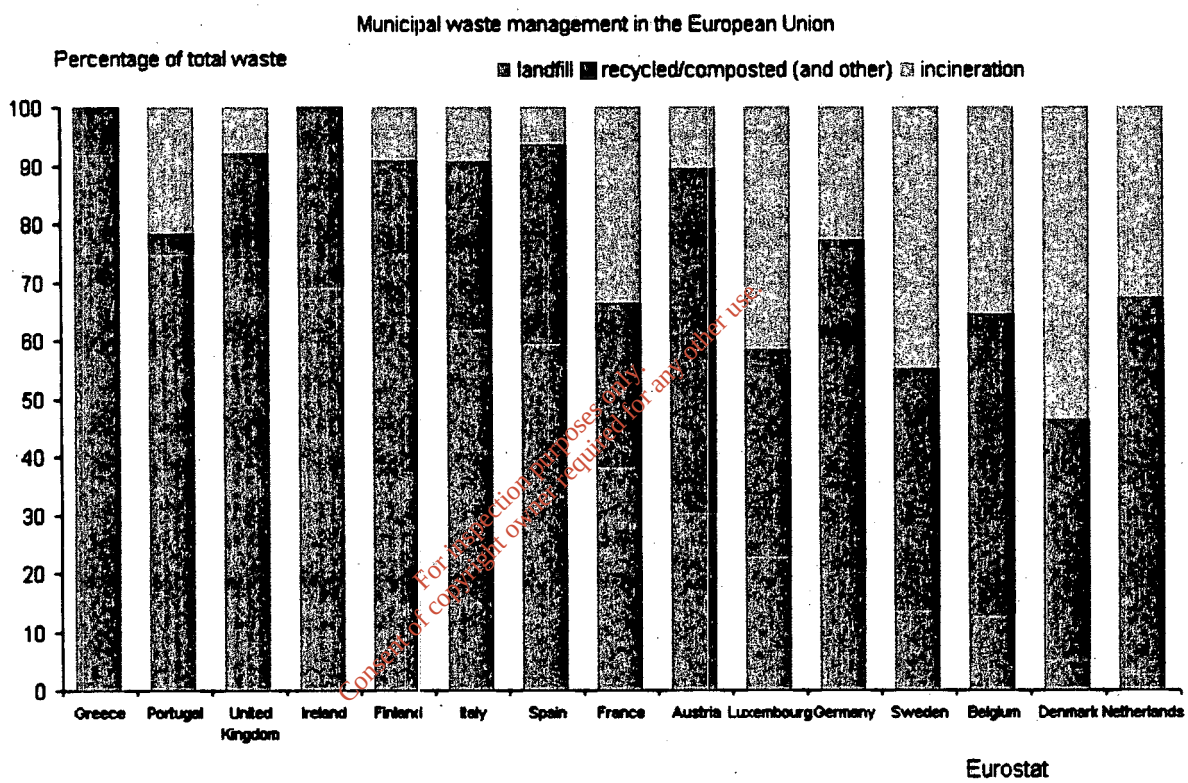


During the period 1995 to 2002, the trend in the treatment of municipal waste in Europe was

- An increase in total waste arisings.
- A significant increase in recycling and composting.
- A small decline in landfilling.
- A small increase in incineration.

An examination of waste treatment in fifteen member states in Europe is attached and shows that:

- Ireland and Greece are the only countries without incineration.
- All countries (except Portugal-check) with incineration have significant recycling/composting.
- The countries with the highest diversion from landfill have incineration combined with recycling/composting.
- Ireland's level of recycling compares favourably with a number of countries and the roll out of separate collections for bio waste which commenced in the last 2 years will improve our position significantly as will the WTE Project.



10. Responsibility for the Facility

10.1. "Fit and Proper Person"

DCC will be the licensee under the waste licence for the WtE facility, and is by definition a "fit and proper person" within the meaning of the WMA to hold a waste licence. Therefore DCC will have the primary responsibility for complying with the waste licence, and the first port of call for the EPA in terms of enforcement of the licence conditions. The EPA Inspector noted at page 21 of his Report that:

> *"The responsibility under the waste licence for compliance with conditions rests with the licence applicant; whom, in this case, is Dublin City Council. Under the terms of the RD the WtE facility cannot be operated other than by persons who are proven as technically competent to do so (Condition 2.1.1)."*

The contractual arrangements put in place by DCC will enable it to ensure that the service provider appointed by it to operate the facility have the technical and financial competence to design, construct and operate the facility, and that the terms and conditions of the waste licence will be fully complied with.

The fact that DCC is by definition a "fit and proper person" for the purposes of the Waste Management Acts does not mean that DCC itself possesses all of the skills necessary to design, construct, operate or maintain a waste to energy project. However, from the commencement of planning for this project the Council has cognisant of the fact that a waste to energy facility is technologically complex and that its successful development and operation would require a suitably skilled and properly motivated partner. These needs underlay the decision to utilise the PPP contractual structure, and drove the procurement process itself.

Although it is not a pre-condition to obtaining a waste licence for the Facility, DCC provided detail in its submission to the EPA on third party objections (section C) to demonstrate that those parties with which it has entered contractual arrangements for the design, construction and operation of the Facility, would also constitute "fit and proper persons" within the meaning of the WMA, meaning that PPP Co:

(i) has no convictions under the Waste Management Acts 1996-2007, the Environmental Protection Agency Act 1992, the Local Government (Water Pollution) Acts 1977 and 1990, or the Air Pollution Act 1987;
(ii) has the requisite technical knowledge or qualifications to carry on the activity in accordance with the waste licence and the WMA; and
(iii) has the Ability to meet the financial commitments or liabilities that may be incurred involved in carrying on the activity in accordance with the waste licence or in ceasing to carry on that activity.

In addition, DCC is required under the Project Agreement to appoint a suitably qualified person to the role of "Authority's Representative", to act as its agent in relation to the project. The role of the Authority's Representative will be essentially to supervise the operation of the facility once it is up and running, and keep a "watching brief" on behalf of the City Council on issues such as environmental monitoring and community liaison during the operations phase.

DCC will also be commencing a procurement process to appoint technical advisers to assist DCC in supervising and monitoring the performance of PPP Co and to ensure the enforcement of DCC's rights under the Project Agreement.

10.2. Procurement Process

DCC commenced the procurement of the WTE project in 2002 under the EU Works Directive. Interested parties were invited to submit a Request for Qualification in July 2002 which provided a basic outline of the Project and requested a detailed description of the qualifications of the applicants, including:

- Structure, activities and resources of applicant
- Minimum turnover
- Details of key personnel who would undertake roles of Project Manager, Contractor, Operator, Process Designer and Legal Advisor
- Details of parent or holding companies and guarantees

- Statement as to eligibility under EC Directive 93/36/EEC (as amended by Directive 97/52/EC) regarding the award of public supply contracts
- Details of Quality Assurance Procedures and Quality Plans
- Financial information (including accounts, credit ratings), parent company support and project finance experience of each shareholder in the applicant
- Details about the Process Designer, Financial Advisor, Legal Advisor (including turnover, staffing, relevant project experience)
- Details of waste to energy plants designed, constructed and operated by applicant
- Health and safety awards and policy of applicant
- Details about the Contractor (including turnover, staffing, relevant project experience, resources, health & safety procedures, industrial relations, financial information, recruitment and training)
- Details about the Operator (including recruitment and training, experience of residue recycling and residue disposal, environmental management, regulatory experience)

DCC also established the following minimum financial requirements for pre-qualification:

- combined minimum turnover of shareholders in the applicant of €150 million in each of previous three financial years
- combined minimum turnover of members of the applicant responsible for process design services, construction services and thermal technology of €150 million in each of previous three financial years
- minimum turnover in the waste to energy sector of member of the applicant responsible for operation of the facility of €50 million in each of previous three financial years

A total of thirteen proposals were received, of which four were invited to participate in the final tender process. Three tenders were received. Following a detailed clarification process DCC deemed the offer submitted by Elsam A/S of Denmark to be the most economically advantageous offer received, and entered into detailed contract negotiations in late 2003.

During the negotiations process Elsam A/S was acquired by Dong Energy Group as part of a transaction involving several major companies active in the northern European electricity market, and which resulted in a series of asset and business line acquisitions and disposals.

Following the Elsam acquisition Dong decided following negotiations with DCC that it would take on a project partner with strong interest and experience in the waste to energy sector. Dong proposed to DCC that it invite the US firm Covanta into its project group as a partner. After a detailed examination of Covanta's qualifications, re-conducting the pre-qualification evaluation process (including technical and financial evaluation as described above) for the proposed Dong-Covanta project group in April 2007, DCC agreed to enter a contract for the project with the combined Dong-Covanta entity, which makes up PPP Co..

10.3. Project Agreement

The Project Agreement between DCC and PPP Co is in line with modern European principles and Department of Finance Guidelines for structuring Public Private Partnerships to ensure their technical and financial success. In Appendix 1 to DCC's submission to the EPA on third party objections, a general description was given of the key provisions of the Project Agreement between PPP Co and DCC that will enable DCC to ensure that PPP Co designs, constructs and operates the facility as prescribed in the Project Agreement and in accordance with the planning approval and the waste licence for the facility, including:

- Rigorous review and certification rights over various elements of design and construction
- Approval rights and certain other restrictions on change in ownership of PPP Co
- Collateral warranties provided by key subcontractors
- Price deductions for failure to meet acceptance testing performance requirements
- Payments to DCC to offset additional disposal costs for failure of PPP Co to accept required waste streams
- Payment deductions for failure to meet certain operating performance criteria
- Parent company guarantees during construction and operation

There are numerous provisions that are particularly relevant to ensuring compliance with the waste licence for the facility.

Annual Operations Report and Annual Operations Plan

PPP Co is required to submit on an annual basis an Operations Report for the preceding year, and an Operations Plan for the upcoming year. PPP Co must liaise with the Authority in this regard. These plans and reports must consider current and proposed legislation, the Waste Management Plan, the Project history and previous reports, the plan for the relevant period, the changing expectations of the parties, the users and the public, and PPP Co's accountability to users and local communities that the Facility serves. If the Operations Report reveals that the Facility is in a worse condition than that required by the Operations Plan, PPP Co, with Authority agreement, must rectify the conditions and bring the Facility to the level specified in the Operations Plan.

Reports

PPP Co is required to submit reports to the Authority, for example the Monthly Operations and Gate Fee Report, which must include monitoring results for water and air, odour and noise impact on the environment, and information on the results of all quality, environmental and other audits.

Monitoring of Performance

PPP Co must grant the Authority unrestricted access to the facility at all reasonable times to allow continuous monitoring of the operations and compliance by PPP Co with its obligations under the Agreement. PPP Co must also monitor and accurately record its performance of the operations and its compliance with its obligations under the Agreement.

Specific Obligations with regard to Environmental Performance

During all stages of the works and operations, PPP Co must ensure the risk of adverse effects on the environment, property, health and amenities is minimised, and that any negative effects are prevented or limited according to relevant licences and consents. PPP Co must take all necessary actions to ensure emergencies are responded to as quickly as possible and the adverse effect of any emergencies is minimised. It is PPP Co's responsibility to co-ordinate the environmental work within the Project and PPP Co must notify the Authority if there is a suspicion of significant environmental effects.

PPP Co must have regard to Best Available Techniques when designing, building and operating the facility, in order to achieve prevention and control of environmental pollution. All

environmental management procedures must comply with the conditions of the waste licence and planning approval.

PPP Co must ensure that the Project is subject to Quality and Environmental Management Systems which must be complied with by PPP Co staff at all times during the contract period. These Systems must comply with the relevant standards, the technical requirements set out in the Agreement and other provisions of the Agreement. The systems must be reflected in Quality and Environmental Documentation which must, as a minimum, include the records required in the waste licence.

PPP Co is not permitted to commence any aspect of the Project before the part of the Quality and Environmental Documentation concerning that aspect of the Project has been submitted to the Authority for review. The Authority is entitled to audit all Quality and Environmental Documentation and Systems and can carry out periodic monitoring, spot checks and auditing of the Quality and Environmental Management Systems.

The Annual Operations Report must include a section dealing with the environmental performance of the facility. PPP Co is also required to undertake an ecological survey of the Irishtown Nature Park at intervals of 3 years following the baseline survey undertaken as part of the EIS.

PPP Co Quality and Environmental Manager

PPP Co. must employ a Quality and Environmental Manager (whose appointment is subject to Authority approval) to establish and maintain PPP Co's Quality and Environmental Management Systems, to ensure compliance with all such Systems and to report on the performance of these Systems.

Sufficiently Trained and Competent Staff

PPP Co must:

- employ sufficiently trained and competent staff, with the necessary and appropriate qualifications, skills and experience to perform the tasks associated with the Project in accordance with PPP Co's obligations under the Agreement
- ensure that all staff involved in the Project have adequate knowledge of and training in respect of all relevant policies of the Authority
- provide ongoing training for staff as is required by any law, legal requirement and good industry practice and as is necessary to enable them to perform their tasks with reasonable skill and diligence
- ensure that staff are appropriately managed and supervised at all times, and members of staff must be nominated to carry out supervision duties on the site and ancillary sites
- provide internal scheduled training programmes on the function of the facility for a limited number of key nominated employees of the Authority.

Public Involvement

PPP Co must develop procedures allowing for public involvement in the Project and PPP Co must liaise with and actively assist the local communications co-ordinator and communications team appointed by the Authority. PPP Co must also provide a suitably qualified person who shall be responsible for public involvement throughout the construction and operational periods. A fund for ongoing environmental research, community gain and community relations must be contributed to by PPP Co. The Authority will establish a community liaison group

consisting of members of the local community, PPP Co and other appropriate persons to monitor the construction of the Facility, and PPP Co must ensure appropriate personnel are available for meetings of this group, and that public queries are responded to. PPP Co must dedicate sections in both its quarterly construction report and its annual operations report to public and community involvement, to include a description of how PPP Co has ensured that members of the public have had access to up to date, accurate information about the Project.

10.4. Requirements of EPA Proposed Decision on waste licence

Condition 2 of the EPA's Proposed Decision sets out detailed requirements in relation to Facility Management, Management Structure and Environmental Management Systems. Prior to the commencement of waste activities, DCC must submit to the EPA written details of the management structure of the facility, including:

- the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence, in particular the name of the facility manager and any nominated deputies;
- details of the responsibilities for each such individual; and
- details of the relevant education, training and experience held by each such individual.

The Proposed Decision also requires an Environmental Management System to be established and maintained, to include:

- Management and Reporting Structure
- Schedule of Environmental Objectives and Targets
- Environmental Management Programme
- Environmental Management Documentation System
- Procedures to ensure that corrective action is taken
- Procedures for maintaining awareness and training
- Programme to ensure efficient process control
- Public awareness and communications programme

Public Awareness and Communications Programme

As soon as development of the facility begins, DCC is required to establish and maintain a Public Awareness and Communications Programme to ensure that members of the public are informed and can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility. The Public Awareness & Communications Programme must:

- Maintain information at the facility as required under the licence which shall be available for inspection at all reasonable times;
- Maintain the following information via the internet:
  - real time data from on-line process monitoring of the incinerator;
  - a weekly summary of continuous emission monitoring data;
- Establish a Community Liaison Committee and facilitate regular meetings of that Committee at a frequency to be agreed with the Committee. The Agenda for each meeting must be prepared and circulated in advance.

10.5. Requirements of ABP decision re Community Liaison & Community Gain

It is also a condition of the An Bord Pleanála planning approval that a Community Liaison Committee be established to liaise between DCC and the local community. The committee will monitor the plant and distribute the Community Gain fund. It will have ten members: an independent chairperson, three local community representatives, three elected members of DCC, two officials of DCC and one representative of the facility operator.

The planning approval also requires that a community gain fund be established to support facilities and services which would be of benefit to the community in the general catchment area. The fund will consist of a lump sum of approximately €8 million and €500,000 per annum for the operational period i.e., 25 years; making a total of €20 million approximately. The community gain fund will be lodged in a special community fund account and details of the management and operation of the fund will be agreed between Dublin City Council and the Community Liaison Committee.

The technical experts retained by Dublin City Council, who had input into the preparation of the EIS and waste licence application, will now address the technical issues of concern that have been raised by objectors in relation to the EPA's Proposed Decision on the waste licence and are available to answer questions the third party objectors might have.