

DUBLIN CITY COUNCIL
PROPOSED WASTE TO ENERGY FACILITY
AT PIGEON HOUSE ROAD
POOLBEG PENINSULA, DUBLIN 4

An Bord Pleanála Reference 29S.EF2022

ORAL HEARING

PRECIS OF EVIDENCE

of

BERNARD McHUGH

 **RPS** Planning & Environment

19 April 2007

1.0 INTRODUCTION

Qualifications and Professional Experience

- 1.1 My name is Bernard McHugh. I have a Bachelor of Arts honours degree in Economics and History, and a postgraduate Diploma in Town Planning from The National University of Ireland. I have a Master of Science degree in Town and Country Planning from The Queens University of Belfast and a Diploma in Environmental Impact Assessment Management from University College, Dublin. I have a Diploma in Legal Studies, and a degree of Barrister at Law from The Honorable Society of Kings Inns, Dublin. I am a qualified though not a practising Barrister. I am a Corporate Member of the Irish Planning Institute, a Chartered Town Planner, and a Fellow of the Royal Town Planning Institute.
- 1.2 I have 36 years professional experience of town planning, spatial planning, land use and transportation planning. I am a Consultant to RPS Group Limited, a multi-disciplinary firm of Town Planners, Consulting Engineers and Environmental Scientists. I have been engaged on many occasions to advise on planning and development matters with particular reference to land use and transportation matters on behalf of both public and private sector clients.
- 1.3 I am a town planning adviser in connection with the project that is currently the subject of an application for approval to An Bord Pleanala pursuant to Section 226 of the Planning and Development Act 2000 as amended.
- 1.4 In my evidence I propose to address the planning policy context for the application for consent to An Bord Pleanala with reference to
- National
 - Regional
 - Urban and Local
- planning and sustainable development strategies and policies. I also will refer to examples of waste to energy facilities that are currently operating in a number of European Urban Centres. I also will deal with the planning history of the locality with specific reference to the Bioburn Project on Pigeon House Road which was refused planning permission by Dublin City Council and by An Bord Pleanala in 1995 and to distinguish that project from the proposal now before An Bord Pleanala. Finally I will draw conclusions in relation to planning and sustainable development policies and objectives and apply these to the project for which consent is now being sought by Dublin City Council from An Bord Pleanala.

2.0 URBAN PLANNING CONTEXT

- 2.1 A Waste to Energy Facility is proposed to be developed to serve the Dublin Region under the Dublin Region Waste Management Plan 2005, at Pigeon House Road, Poolbeg Peninsula, Dublin 4.

- 2.2 The subject site is located mostly on the southern side of Pigeon House Road. The site includes Shellybanks Road and the area immediately to the east of this extending as far as the Dublin City waste water treatment works. The site is currently in industrial use and is surrounded to the north, east and west by other industrial and infrastructure uses. The Irishtown Nature Park and the shoreline of Dublin Bay lie to the south of the site. Currently the principal part of the site located to the south of Pigeon House Road is occupied by Clearway Disposal, a scrap metal business and a further area is occupied by Hibernian Molasses. The remainder of the site that is to the south of Pigeon House Road is used for surface car parking. To the north of Pigeon House Road there is a narrow strip of land extending from the Road to the quay wall of Dublin Harbour. The Synergen Dublin Bay Power Plant and also the existing Pitch and Putt course are located to the west of the site. To the north are further industrial activities and Dublin Port quays. The established residential areas of Irishtown and Ringsend lie approximately 1km to the west and south west of the Site. Sandymount is located on the south side of Dublin Bay.

Implications of the Protection of the Environment Act, 2003 for the Waste Management Act, 1996

- 2.3 Section 22.(10A)(a) of the Waste Management Act 1996 as amended by Section 26 of the Protection of the Environment Act, 2003 stipulates that the development plan for the time being in force in relation to the functional area of a local authority shall be deemed to include the objectives for the time being contained in the waste management plan in force in relation to that area.
- 2.4 Where a conflict arises between an objective deemed to be included in a development plan as a result of the objective forming part of the waste management plan, and any other objective of the development plan, the waste management objective shall override the objective included in the development plan, irrespective of whether or not the development plan is subsequent to the waste management plan referred to. This is set out at Section 22.(10A)(b) of the Waste Management Act 1996 as amended.
- 2.5 The Dublin Regional Waste Management Plan made on the 11th of November 2005 at Section 18.8 expresses the following objective:-

'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 per annum and will treat non-hazardous municipal or similar waste'.

By virtue of the provisions of Section 26 of the Protection of the Environment Act 2003 which amended Section 22 of the Waste Management Act 1996, this objective is now a statutory objective of the Dublin City Development Plan 2005 to 2011.

3.0 NATIONAL AND REGIONAL PLANNING POLICY CONTEXT

3.1 The strategic urban planning context for the proposed Waste to Energy Facility at Poolbeg Peninsula is an important planning and sustainable development consideration for An Bord Pleanála which is obliged by Section 175(6) of the Planning and Development Act 2000 to consider the likely consequences for proper planning and sustainable development in the area in which it is proposed to situate such a facility. Under this heading there are a number of relevant policy documents that I now wish to refer to as follows.

Sustainable Development - A Strategy for Ireland

3.2 The 1997 Department of the Environment Document '*Sustainable Development; A Strategy for Ireland*' recognises that land use planning can support sustainable development in a number of ways. These include: -

- efficiency in the use of energy, transport and natural resources may be encouraged through the careful location of residential, commercial and industrial development, and controls on the shape, structure and size of settlements;
- the planning process can also promote the most effective use of already developed areas;
- protection and enhancement of the natural environment, including unique or outstanding features, landscapes and natural habitats can be secured; and
- new development needs can be accommodated in an environmentally sustainable and sensitive manner.

3.3 In relation to land use planning, the report states that planning authorities will be encouraged to take a more strategic view of settlement patterns, development needs and major infrastructural services, including waste management services.

3.4 The Strategy for Sustainable Development identifies energy as a key strategic sector. Within the sector the maximisation of generation efficiency, sustainable design, energy conservation and the minimisation of greenhouse gases are seen as key elements of a sustainable energy policy.

Ireland National Development Plan 2000-2006

3.5 The National Development Plan was designed to underpin the development of a dynamic competitive economy over the period 2000-2006. The objective of regional policy set out in the National Development Plan is:

"To achieve a more balanced regional development in order to reduce the disparities between and within the two Regions (Border, Midlands and West, and the South and East) and to develop the potential of both to contribute to the greatest possible extent to the continuing prosperity of the country."

- 3.6 In addition to initiating the process of preparing the National Spatial Strategy, the National Development Plan identified the five main cities, Dublin, Cork, Limerick, Galway and Waterford, as 'Gateways', or engines of regional and national growth. The National Development Plan set the National Spatial Strategy the task of further developing the Government's objective of achieving more balanced regional development, including the identification of a limited number of additional gateways.
- 3.7 The plan stated that regional infrastructural investment will include waste management new infrastructure. The Plan suggested that appropriate waste management infrastructure is vital not only for environmental protection reasons, but also for industrial development reasons, where lack of appropriate facilities may hamper development. It noted at para 4.61 page 65 that,
- 'The recent levels of economic growth have placed a significant strain on existing waste management infrastructure and extensive investment is now required to provide the necessary infrastructure. If this investment does not take place in a timely fashion, future economic development could be jeopardised. This is therefore a key priority infrastructure in the National Development Plan.'*
- 3.8 The 2000 Plan promoted public private partnership as a means of funding most of the required waste management infrastructure. The Plan drew attention to information emanating from the waste management strategy studies and draft plans which indicated that both the BMW Region and the S&E Region are essentially the same in terms of the range of infrastructure required, but the scale is larger in the S&E Region because of the larger population.

***National Development Plan 2007-2013 Transforming Ireland-
A Better Quality of life for all***

- 3.9 The National Development Plan 2007 –2013 at page 143 notes that waste management policy is largely negotiated at EU level and a significant body of legislation has been developed since the adoption of the first Waste Framework Directive in 1977. Ireland has adopted and implemented a large variety of waste legislation with significant success and generally high support, over the past decade. In addition to this, a number of innovative strategies were introduced, including, in particular, the internationally acclaimed plastic bag levy, and the landfill levy. Waste Management is a specific sub-programme of the new National Development Plan.
- 3.10 Under the Waste Management Sub-Programme, some €753 million will be invested in dealing with the problem of legacy landfills and in supporting the recycling and recovery effort.
- 3.11 Page 145 of the new National Development Plan notes that 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 Ireland is tasked 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.

- 3.12 In the case of the Dublin Region, the relevant authorities are proceeding by way of a public private partnership for which the necessary regulatory approvals are being sought. Other Regions are at earlier stages in the process. The new National Development Plan as regards the Dublin Region at page 145, makes expressed reference to the proposed public private partnership to deliver a waste to energy facility with energy recovery as the preferred option for dealing with treatment and disposal of residual waste in the Dublin Region.

THE NATIONAL SPATIAL STRATEGY 2002-2020

- 3.13 The National Spatial Strategy (NSS) is a twenty-year planning framework designed to achieve a better balance of social, economic, physical development and population growth between regions. Balanced regional development requires that the full potential for each region to contribute to the overall performance of the State be developed on a sustainable economic, social and environmental basis.
- 3.14 The NSS supports Dublin's pivotal role in national economic success. In addition, the Strategy identifies the need for strategically placed, national scale urban areas, acting as gateways, which individually and in combination will be key elements for delivering a more spatially balanced Ireland and driving development in their own regions.
- 3.15 With regard to the Greater Dublin Area, the NSS recognises (at para 3.3.1 page 42) it is essential,
- 'that the performance of the economy of the Greater Dublin Area (GDA) and surrounding counties be built upon so that its success, competitiveness and national role are sustained into the future.'*
- 3.16 The Dublin and Mid East regions (the Greater Dublin Area) are considered jointly in the NSS because of their strong functional interrelationship and the fact that Strategic Planning Guidelines for the two regions are already in place.
- 3.17 The NSS aim to enhance the competitiveness of the Greater Dublin Area (GDA) in order that it continues to perform at the international level as the driver of national development, will require the physical consolidation of the metropolitan area i.e. Dublin City and Suburbs. This development centre is seen as having a unique role in Irish terms, given the scale of the Dublin City Region and the need for internal balance between the city and its surrounding counties.

- 3.18 The National Spatial Strategy predicts that Ireland's national population over the next 20 years will rise to at least 4.4 million which is a circa 25% increase from the 2000 national population figure of 3.5 million. There is a possibility, depending on economic growth, that it could rise significantly beyond that level, subject to an upper limit of around 5 million. Around 2.2 million of the predicted national population for the year 2020 it is estimated will be located in the Greater Dublin Area. The NSS notes that there are a number of specific elements, whose assembly at strategic locations in a targeted way is vital to foster a wide range of enterprise activity and employment creation for this growing population. Effective waste management structures and facilities are listed as being one of the specific elements. The Strategy recognises that attempting to assemble these elements at entirely new locations would involve unprecedented and unsustainable levels of investment and would undermine the capabilities of existing towns and previous investment in them. New cities or towns also often take considerable time to establish a strong community and entrepreneurial spirit needed to underpin their future. For these reasons, the NSS emphasises the importance of capitalising upon the strengths of, and investment in, Ireland's existing major urban areas.
- 3.19 The NSS recognises that how we use our environment and its resources can have impacts upon the rest of the world. The use of fossil fuels and their contribution to global warming is noted as a prime example of such environmental interaction. In economic development, the environment is seen to provide a resource base that supports a wide range of activities that includes agriculture, forestry, fishing, aquaculture, mineral use, energy use, industry, services and tourism. For these activities, the NSS states that the aim should be to ensure that the resources are used in sustainable ways that put as much emphasis as possible on their renewability.
- 3.20 The NSS recommends that implementation of the Strategy will be through a number of means including the implementation of regional guidelines, development plans and integrated spatial planning frameworks that are consistent with the National Spatial Strategy.

Regional Planning Guidelines for The Greater Dublin Area 2004-2016

- 3.21 The '*Regional Planning Guidelines for the Greater Dublin Area*' (RPGs) provide a robust sustainable planning framework for the Greater Dublin Area within the context of the Planning and Development Act, 2000 and the National Spatial Strategy 2002-2020 (NSS). The Greater Dublin Area includes the geographical areas of Dublin City, Fingal, Dun Laoghaire-Rathdown, South Dublin, Kildare, Meath and Wicklow and incorporates the regions of both the Dublin Regional Authority and the Mid-East Regional Authority. The Guidelines provide a long-term strategic planning framework for the development of the Greater Dublin Area in the 12 year period up to 2016 and within the National Spatial Strategy vision for 2020. While the Guidelines are set within a 12-year context, they are to be reviewed after 6 years.

- 3.22 Implementation of the RPG Strategy is to be achieved primarily through:
- The Development Plan process of the Planning Authorities that will guide and control the development throughout the Greater Dublin Area,
 - Putting in place and applying Regional Planning Guidelines in other regions in line with the National Spatial Strategy,
 - Provision of major transportation, sanitary services and other infrastructure that will be primarily undertaken by the public sector with increasing participation by the private sector in accordance with Government procurement policies.
- 3.23 Section 23(2) of the Planning and Development Act, 2000 requires that the Regional Planning Guidelines address a number of specific matters for the whole of the region to which the Guidelines relate, in accordance with the principles of the proper planning and sustainable development of the area. These matters include projected population trends and settlement and housing strategies, economic and employment trends, the location of industrial and commercial development, transportation including public transportation, water supply and waste water facilities, waste disposal, energy and communications networks, the provision of educational, health care, retail and other community facilities, the preservation and protection of the environment and its amenities, including the archaeological, architectural and natural heritage, and also such other matters as may be prescribed by the Minister. Compliance with each individual matter is detailed in the Regional Planning Guidelines. In relation to the issue of waste disposal, the Guidelines at page 73 state that,
- 'An interregional solution should be sought, through the liaison and co-operation between relevant parties, to address the critical lack of waste disposal infrastructure within the Greater Dublin Area.'*
- 3.24 In its review of infrastructure needed in the Greater Dublin Area, page 33 of the Regional Planning Guidelines notes that solid waste management continues to be a critical issue of the Greater Dublin Area. The report noted that a review by Dublin City Council of the Dublin Waste Management Plan in 2003 concluded that there has been slippage in the provision of the built infrastructure required. It also noted that despite the achievements made in recycling, the planned closure of the municipal landfill at Arthurstown in County Kildare in 2007 will mean that Dublin must have disposal outlets for substantial amounts of waste, probably in excess of 160,000 tonnes per annum after that date. The RPGs note that the anticipated operational date for the project is 2007. It is now clear that this particular date will not be met.
- 3.25 The Waste Management Plan for the North East Region requires provision of a thermal treatment plant by 2008. The location of this is at Carranstown County Meath. The RPGs note that this facility could be operational by 2007 if all necessary consents are in place. It appears now unlikely that this target date will be met.

- 3.26 The RPGs at page 33 note that notwithstanding construction of a Waste to Energy facility in Dublin, there will still be a need for new (additional) landfill capacity in the Dublin Area to cater for municipal wastes that are not acceptable at a Waste to Energy facility. There is now a separate project at Nevitt in Fingal that is currently in the planning process which seeks to address this particular issue.
- 3.27 Chapter 8 of the Regional Guidelines addresses issues concerning transportation and infrastructure (including water supply, waste water facilities, waste disposal and energy and communications networks). With regard to waste disposal, the Guidelines recognise that the Dublin Waste Management Plan adopted in 2001 by the four Dublin local authorities proposed a reduced dependency on landfill for waste disposal, through cutting waste growth levels, greatly increasing recycling activities, introducing waste recovery and biological treatment. Waste management plans with broadly similar aims were adopted in Meath (which is part of the North East waste region), Kildare and Wicklow.
- 3.28 The RPGs acknowledged that since the adoption of the waste management plans, population growth, economic growth and a corresponding increase in household waste generation have meant that the targets identified in the plans will not be achieved within the agreed timeframes. While progress has been made, particularly for recycling, the Guidelines at para 8.6.3 page 152 point out that *'it is clear that the targets identified in the plans were overly ambitious and that there is a serious lack of waste management infrastructure in the GDA, both for household and commercial waste, which will become critical beyond 2008.'*
- 3.29 The proposed waste management facility at Poolbeg is specifically referred to at Para 8.6.3 of the RPGs in the following clear statement
- 'The municipal landfills presently serving the Dublin Region will all be closed within 5 years. A key element of the Dublin Waste Management Plan is the provision of a Waste to Energy Plant (at Poolbeg) with a proposed capacity of approximately 500,000 tonnes/annum.'*
- 3.30 The Guidelines point out that private sector proposals to develop landfill sites in Wicklow, Kildare and Meath are likely to be developed in the medium term. In this regard, it is recommended that the transferring of waste between regions should be reconsidered so as to give flexibility in dealing with waste management at a regional level. The Guidelines state at page 152 that,
- 'New facilities should be allowed to perform their required function in one region and also form part of the wider strategy that includes waste management in another region.'*

3.31 From a strategic perspective, the RP Guidelines specify that,
'the waste management industry (which includes Planning Authorities and private operators) should aim to develop integrated waste management facilities infrastructure in the GDA. This infrastructure includes new landfills, waste to energy plants, biological treatment and recycling facilities.'

3.32 In developing this infrastructure, the Guidelines state that provision should be made to:-

- Provide for a growth in the regional capacity of integrated waste management so as to mitigate the escalating costs of waste disposal,
- Develop biological treatment facilities for organic waste, further recycling and waste to energy plants to serve the GDA,
- Permit interregional transfer of waste to give appropriate economies of scale to integrated waste management facilities,
- Consider the requirement for new infrastructure in the context of the GDA, rather than the existing waste management regions; and
- Consider the examination of other viable options, for example the identification, promotion and recommendation of potential Strategic Development Zones (through Part 9 of the Planning and Development Act, 2000) to facilitate the development of integrated waste management facilities.

The Regional Planning Guidelines concluded that revision of the Regional Waste Management Plans is required as a matter of urgency to take account of changes in demography, increases in waste volumes and improvements in waste management technology. A review of the *'Waste Management Plan for the Dublin Region'* was completed and a new Waste Management Plan was made in November 2005.

3.33 Chapter 11 of the RPGs deals with implementation of the regional planning strategy. Continuation with the implementation of major infrastructural programmes and projects where the regional strategy has signalled its continued support, is one of four key actions set out at page 170 of the Regional Planning Guidelines. The Municipal Waste To Energy Facility at Poolbeg is a specific project that is clearly identified and supported by the RPGs.

3.34 In the delivery of necessary infrastructure the RPGs stress at Para 11.2 that it will be critical to the sustainable development of economic and social progress that the major infrastructure programmes and projects identified in the Strategic Planning Guidelines and continued in the Regional Planning Guidelines for the GDA are funded and delivered in accordance with the planned timescales.

- 3.35 Section 143 of the Planning and Development Act 2000 requires An Bord Pleanála in performing its functions to have regard to the policies and objectives for the time being of the Government, a State Authority, the Minister, planning authorities and any other body which is a public authority whose functions have, or may have, a bearing on the proper planning and sustainable development of cities, towns or other areas, whether urban or rural. Thus An Bord Pleanála is required to have regard to the Regional Planning Guidelines which set out policies and objectives for planning and sustainable development.

4.0 URBAN AND LOCAL PLANNING POLICY CONTEXT

4.1 The relevant statutory Development Plans are the Dublin City Development Plan 2005 –2011 and the Dublin Docklands Master Plan 2003. The City Development Plan sets out the framework for proper planning and sustainable development in Dublin City within the context of the National Development Plan, the National Spatial Strategy, the Regional Planning Guidelines for the Greater Dublin Area and the recommendations of the Dublin Transportation Office. It proposes a strategy for Dublin that promotes the consolidation of the city, maximising efficient use of land and integrating land use and transport. The vision is to create a sustainable framework that allows for a co-ordinated development approach. The Development Plan was made by Dublin City Council on 14 February 2005 and came into effect on 14 March 2005 pursuant to the provisions of the Planning and Development Acts 2000 to 2002.

4.2 In making this Development Plan, the Dublin City Manager informed the City Council that they should be aware that Section 26 of the Protection of the Environment Act 2003 provides, inter alia, as follows:-

“The Development Plan for the time being in force in relation to the functional area of a Local Authority shall be deemed to include the objectives for the time being contained in the Waste Management Plan in force in relation to that area”.

4.3 The Dublin City Development Plan 2005-2011 sets out a new spatial strategy to steer future growth in both the inner and outer city. The strategy consists of three key initiatives:-

- **Expansion and consolidation of the city centre:** The continued renewal and regeneration core in an eastward and westward direction,
- **Development of Prime Urban Centres:** Expanding and developing key suburban centres,
- **Framework Development Areas:** Development and regeneration of key strategic areas which are situated in the Inner and Outer city.

4.4 Lands at Poolbeg on which it is proposed to locate the Waste to Energy Facility, are the subject of two land use zoning objectives that apply to different portions of the subject site. The majority of the site has a land use zoning objective Z7A. The purpose of this Z7A use zoning objective is described at Page 103 of the written statement as *‘to provide for the protection and creation of industrial uses, and to facilitate opportunities for employment use’*.

4.5 About 20% of the subject site has a land use zoning objective Z7, the purpose of which is *‘To provide for the protection and creation of industrial uses, and facilitate opportunities for employment creation’*. The Z7 use zoning objective also applies to part of the wayleave for the proposed cooling water intake and outfall pipes, into the River Liffey to the north of Pigeon House Road.

- 4.6 The wording of Land Use Zoning Objectives Z7 and Z7A are identical. This is apparent from the maps and from the written statement in the Dublin City Development Plan 2005. Table 14.1 says that Z7 is *'Employment (Heavy)'*, and Z7A is *'Employment (Heavy-excluding incinerator/waste to energy plant)'*.
- 4.7 The Z7A and Z7 zoning objectives apply to the great majority of the subject site, with the exception of Shellybanks Road which is shown on Map F as 'white land' as also is the river channel to the North of Pigeon House Road which refers to the general location where it is proposed to locate the proposed cooling water intake and outfall. Under the Z7 zoning objective, the written statement lists *'Incinerator/Waste to Energy Plant'* as a *'permissible use'*. Under the Z7A zoning objective, an *'Incinerator/Waste to Energy Plant'* is not mentioned under either *'permissible uses'* or *'open for consideration'*.
- 4.8 A careful reading of both the written statement and the accompanying maps of the statutory Development Plan reveals that there is some ambiguity and internal contradiction in regard to what is the statutory policy and objective as regards development of a waste to energy facility at Poolbeg Peninsula. Table 14.1 at page 103 of the written statement sets out what is described as 'Abbreviated Land Use Description Objective' for Z7A as follows:-

"Employment(Heavy – excluding incinerator/waste to energy plant)"

In the same Table, Objective Z7 is described as *'Employment (Heavy)'*. However this is the introductory paragraph and it is stated that the subsequent sections of the written statement provide more detail and also the general role of each zone and the specific land use zoning objective for each case.

- 4.9 It is noted that apart from this particular site on Pigeon House Road on the Poolbeg Peninsula, no other site either on the Poolbeg Peninsula or indeed anywhere else throughout the administrative area of the Planning Authority has a land use zoning objective Z7A. No explanation is given for this particular decision of the City Council in the statutory Development Plan.
- 4.10 Paragraph 4.4.7A of the written statement at page 108 outlines the zoning category Z7A and sets out the general role of the zone in land use terms as follows:-

'The primary uses in these areas are those which result in a standard of amenity which would not be acceptable in other areas. They can unavoidably cause 'bad neighbour' problems due to the generation of dis-amenities such as noise, smells, heavy goods traffic etc. Activities include industry other than light industry; manufacturing repairs, open storage, waste material treatment, transport operating services.

These areas require a measure of protection from other non-compatible 'clean' uses as this can result in conflict and limit the expansion of the primary use in the area. In particular, activities that fall within the scope of the SEVESO II (COMAH)

Regulations should only be permitted on lands zoned Objective Z7 and Z7A and the expansion of such facilities may be impacted by the requirement to protect surrounding land uses.'

4.11 The above paragraphs indicate that 'waste material treatment' is an acceptable primary use within zoning category Z7A. Under Zoning Objective Z7A, page 108 of the Development Plan written statement reveals that a waste to energy facility is neither a 'permissible use' nor an 'open for consideration use' in this particular zone.

4.12 Paragraph 14.5.0 of the Dublin City Development Plan defines permissible and open for consideration uses as follows:-

'A permissible use is one which is generally acceptable in principle in the relevant zone, but which is subject to normal planning consideration, including policies and objectives outlined in the Plan'.

'An open for consideration use is one which may be permitted where the planning authority is satisfied that the proposed development would be compatible with the overall policies and objectives for the zone, would not have undesirable consequences for the zone, would not have undesirable effects on the permitted uses, and would otherwise be consistent with the proper planning and development of the area'.

4.13 As already noted, a Waste to Energy Facility is a use that is not listed as either permissible or open for consideration in the Z7A zone. However, to fully understand these definitions, Paragraph 14.5.0 says"the following sections define what is meant by a permissible use and an open for consideration use".

'Uses not listed in any of the categories in zones Z1, Z2, Z8, Z9, Z11 and Z15 are deemed not to be permissible uses in principle.

'Uses not listed in any of the above categories and located in the following zones will be dealt with in their merits: zones Z3,Z4 (including Prime Urban Centres), Z5,Z6,Z7,Z7A,Z10,Z12,Z13'.

4.14 Reference to the mentioned categories reveals that a waste to energy facility is not listed in any of the categories set down in the written statement for Zoning Objective Z7A. Those categories are stated on page 108 of the written statement of the statutory Development Plan. On that basis, the development of a Waste to Energy Facility on the subject site is a project that is to be dealt with on its merits according to the Development Plan.

4.15 It also is the case that there is an objective of the Dublin Waste Management Plan 2005 to develop a Waste to Energy Facility on this particular site at Pigeon House Road Poolbeg. By virtue of Section 26 of the Protection of the Environment Act 2003 the objective to develop a Waste to Energy Facility on the subject site is therefore in law deemed to be an objective of the statutory development plan.

4.16 The thrust of these particular considerations suggests that while this particular project is to be considered on its merits by the Planning Authority by reference to the provisions of Para.14.5.0 of the Development Plan, the fact that the project is an objective of the Waste Management Plan means that it is legally also an objective of the statutory Development Plan. Where there is any conflict between an objective of the Waste Management Plan and the Dublin City Development Plan, the objectives of the Waste Management Plan shall take precedence and shall prevail.

4.17 The Dublin City Development Plan contains specific Waste Management policies. Policy U1 at page 92 states

It is the policy of Dublin City Council to have the following priorities in relation to waste management:

- *To prevent and minimise the harmful effects of waste;*
- *To encourage and support the recycling and recovery of waste including green, organic and construction and demolition waste and the recovery of energy from waste;*
- *To ensure that waste which cannot be prevented, recycled or recovered is disposed of without causing environmental pollution;*
- *To ensure that effect is given as far as possible to the polluter pays principle.¹*

4.18 Policy U4 of the Development Plan states,

'It is the policy of Dublin City Council, in conjunction and co-operation with the adjoining local authorities in the Dublin Region, to implement the Waste Management Plan for the Dublin Region. It is the policy of the elected members of Dublin City Council to oppose the siting of an incinerator on the Poolbeg peninsula.'

Apart from the fundamental contradictions contained in Policy U4 which are not resolved in any way, I note that whereas the policy of the City Council is to implement the Waste Management Plan for the Dublin Region, no other site or more correctly, no site at all is identified by the elected representatives in any location within the administrative area of the Planning Authority as being acceptable or suitable for the location of a Waste to Energy Facility. I also note that this project at Pigeon House Road is a stated objective of the Waste Management Plan for the Dublin Region adopted on 11 November 2005.

4.19 The Dublin City Development Plan 2005 - 2011 designated the South Bank/Poolbeg area as a Framework Development Area. These are areas to be the subject of a Development Framework in the course of the life of the Development Plan, the contents of which

¹ 'Polluter Pays Principle': Principle that causer of pollution pays; the principle that a company that causes pollution should pay for the cost of removing it, or provide compensation to those who have been affected by it.

will be guided by the development principles outlined in the Development Plan. A number of the principles particular to the South Bank / Poolbeg Framework Development Area FDA 13 have relevance for the development of a Waste to Energy Facility at the subject site. Pages 117 and 118 of the Written Statement set out 11 development principles for future development in this area. These are

- “1. To ensure that new development facilitates the implementation of a global landscape plan for the Poolbeg Peninsula developed in the context of the unique landscape qualities of the peninsula, river and bay area.*
- 2. To ensure that significant dimensions of the landscape framework are implemented as part of any future development in utilities.*
- 3. To support a ‘differentiated character’ approach within an overall landscape framework that will allow for the consolidation of specific activities.*
- 4. An urban scale and form of development with mixed use and defined areas of ‘predominant character’.*
- 5. To allow for utilities operation and expansion within an overall environmental improvement strategy and landscape plan.*
- 6. To promote and protect the ecology of the area, while providing for recreational open space with public access (and provision of a pitch and putt course located on Poolbeg Peninsula) within a consolidation framework for public utilities, including the re-use of historic structures.*
- 7. To improve accessibility through the development of a movement framework with a strong emphasis on public transport, pedestrian/cycle networks and incorporating innovative approaches geared to developing sustainable modes of commuter movement and car parking.*
- 8. To initiate a phased development of both commercial development and public realm–landscape/road infrastructure. To ensure that key elements of the landscape framework are of the highest quality design and are implemented early in the overall phasing plan to set future precedent for area character.*
- 9. To ensure phased implementation of major redevelopment sites can be linked to the implementation of significant public realm packages of the landscape framework plan identified outside of the commercial sites in question.*
- 10. To ensure that all development is compatible with the nature conservation designations of the south bay.*

11. *To ensure that the unique landscape qualities of the Poolbeg Peninsula, rivers and bay area are recognised in any development proposals for the Poolbeg area and that the existing open character and nature of the views from Irishtown Nature Park are retained as far as practicable”.*
- 4.20 The proposed Waste to Energy Facility is located on an infill site between the existing Municipal Sewage Treatment Works on the eastern side and the Powergen Power Plant to the west. To the south is Irishtown Nature Park which is an entirely man made construction. On the northern side of Pigeon House Road there are other infrastructural and industrial operations. The subject site and its locality has a well established infrastructural character. This aspect is relevant to the architectural design detailing and boundary treatment of the proposed development given its prominent visibility from areas of high amenity including Irishtown Nature Park and Sandymount Strand. In my professional opinion the architectural design and treatment of the proposed WtE facility, having regard to its location, nature and scale are generally consistent with the development planning principles set out above for FDA 13.

DUBLIN DOCKLANDS AREA MASTER PLAN 2003

- 4.21 Under section 18(1) of the Dublin Docklands Development Authority Act, 1997 the Dublin Docklands Authority is required to prepare a Master Plan for the regeneration of the Docklands area and to promote the implementation of the Master Plan. The Area which the Plan covers comprises of some 526 hectares and the Plan is framed within a 10 to 15 year time horizon, to be reviewed by the Authority at least once every five years.
- 4.22 In accordance with the provisions of section 24 of the 1997 Act, the Master Plan indicates the objectives for:-
- (i) the social and economic regeneration of the Dublin Docklands Area, on a sustainable basis.*
 - (ii) improvements in the physical environment of the Dublin Docklands Area; and*
 - (iii) the continued development in the Docklands of services of, for, and in support of, or ancillary to, the financial sector of the economy.*
- 4.23 One of the key strategic objectives established for the Master Plan is:-
- (o) Promote the sustainable physical renewal of the Area to a high environmental standard, reflecting high quality urban design and architecture, combined with energy efficiency.*
- 4.24 In the area of economic development and employment, it is a policy of the Authority to collaborate with Dublin City Council and other agencies to promote the early provision of key infrastructural works. Lands at Poolbeg are specifically referred to in the Plan and it is a policy of the Authority to,

'continue to investigate the possibility of acquiring lands at the Poolbeg Peninsula in order to facilitate research and development, industrial and commercial development. As an early priority intervene and secure the possession of areas elsewhere in the Docklands, where sites are no longer in productive use.'

- 4.25 The plan promotes the achievement of a sustainable built environment through a policy of mixed use development where compatible uses are integrated in a structured manner designed to achieve a lively coherent new city quarter. However, the Master Plan also recognises that land use zoning needs to take into account the fact that there are certain established uses, such as industrial uses or even residential uses in certain areas, which will require zoning protection where there is pressure for higher land value uses. The Master Plan encourages the segregation of heavy industrial uses from other uses including residential uses, in order to protect amenities of certain categories of occupiers.
- 4.26 The lands at Poolbeg on which it is proposed to locate a Waste to Energy facility, are zoned Z7 in the Dublin Docklands Area Master Plan. The objective of a Z7 zone is *'to provide for the protection and creation of industrial uses and facilitate opportunities for employment creation.'* A Waste to Energy Facility is listed as a land use normally permissible in a Z7 zone. A "permissible" use is one which is generally acceptable in principle in the relevant zone, but which is subject to normal planning consideration, including policies and standards. The retention of general industrial zoning (Z7) on the Poolbeg Peninsula is considered essential in order to provide for utilities, accommodate other displaced industries and serve the needs of the Port on the south side of the Liffey.
- 4.27 The Master Plan at page 51 recognises that Dublin City Council is promoting the provision of a Waste to Energy Facility which will cater for the thermal treatment of waste from the four Dublin local authorities as part of the Dublin Waste Management Plan. While the proposed facility has still to secure the relevant statutory consents, the Master Plan points out that key planning considerations in the assessment of the proposal are likely to relate to access, the management of truck movements and the impact on amenities. The Master Plan recognises that the interface between both the residential areas of Ringsend and high amenity areas along Sandymount Strand and the utilities/general industry on the Poolbeg Peninsula, needs to be carefully considered and amenities protected. It is important to point out that under Section 24 of the Dublin Docklands Development Authority Act, where the DDDA has adopted a Master Plan, Dublin City Council is obliged to ensure that relevant policies and provisions of the Dublin City Development Plan are consistent with the Master Plan for the DDDA.
- 4.28 In relation to the Waste to Energy Facility proposed at Pigeon House Road Poolbeg, the policy of the Master Plan at Para 5.2.7 page 70 is to: -

'keep under review, in co-operation with the ESB and Dublin City Council, the potential of recovery and distribution of waste heat from Poolbeg Power Station and any Waste Energy Plant which may be developed and consider the possibilities for Combined Heat and Power facilities, as part of an overall energy conservation programme for the Area, and.....

'...to have regard to the Dublin Waste Management Plan 1998 and its objectives of preventing and minimising waste, maximising recovery through recycling and ensuring that such waste that cannot be prevented is disposed of without causing environmental pollution.'

- 4.29 The DDDA Master Plan acknowledges that development on the Poolbeg Peninsula will have to take account of the provisions of the Seveso II Directive (96/82/EEC). The aim of this Directive is the prevention of major accidents which involve dangerous substances, and the limitation of their consequences for man and the environment, with a view to ensuring high levels of protection throughout the Community in a consistent and effective manner. Article 12 of the Directive imposes requirements on the land use planning system. The general aim of the Directive is required to be pursued by Member States through controls on the site of new establishments, controls on modifications to existing establishments and controls on new developments such as transport links, locations frequented by the public and residential areas in the vicinity of existing establishments, where the siting of development is such as to increase the risk or consequence of a major accident. The Seveso Regulations do apply to the proposed WtE Facility.
- 4.30 Member States are required to ensure that their land-use policies take account of the need, in the long term, to maintain appropriate distances between establishments covered by the Directive and residential areas, areas of public use and areas of particular natural sensitivity or interest. In the case of existing establishments, there is a requirement under the Directive for additional technical measures so as not to increase the risks to people.
- 4.31 Member States are also required to ensure that all competent authorities and planning authorities responsible for decisions in this area set up appropriate consultation procedures. In Ireland, the Health and Safety Authority (HSA) is a statutory consultee in the case of developments covered by the Directive.
- 4.32 There are a large number of Seveso II classified sites within the Dublin Port area. Both Poolbeg and Ringsend Power Stations are establishments covered by the Directive, and the proposed Waste to Energy Plant also will be covered by the Directive.
- 4.33 The Master Plan lists a number of specific local road improvements within the Docklands Area which are required to facilitate local movement. A road objective is identified on Map B of the Master Plan that would provide appropriate local access to new development and recreational areas on the Poolbeg Peninsula. This new road would be separate from the access to heavy industry and

utilities currently provided by South Bank Road and Pigeon House Road.

- 4.34 Poolbeg Peninsula is recommended in the DDDA Master Plan for Section 25 designation. The Plan recognises that the Poolbeg Peninsula contains under-utilised land, is poorly laid out, is largely within state ownership, is isolated from any residential areas, and requires a co-ordinating plan to realise its physical and economic development. Consideration will be given to the preparation of the Section 25 Planning Scheme for this area towards the end of Phase 2 of the Master Plan period.

DRAFT POOLBEG FRAMEWORK PLAN DUBLIN SOUTH BANK, 2003 TO PRESENT

- 4.35 In March 2001 Dublin City Council issued briefs for three important areas of Dublin City where a high potential for change had been identified; where consolidation in character and the amenity base is urgently required, and where potential for regeneration exists.
- 4.36 Poolbeg Peninsula is one of the three selected areas and the principal objective of the framework plan is to put in place a structural framework for the redevelopment of existing large brownfield sites, leading to the creation of attractive new urban places and securing sustainable densities for development linked to public transport infrastructure and services.
- 4.37 The first phase of this process began in 2002 with the DEGW Development Framework for the South Bank Environs, which highlighted development opportunities on the Poolbeg Peninsula in parallel with the need to safeguard existing public utilities there as well as their potential future expansion. The recommended strategy consisted of three broad development zones lying on an East West axis. Zone 1 is to the West, and is assigned to accommodate future commercial and residential development together with new transportation infrastructure. Increased building density and height are recommended for this zone to connect it into the existing urban structure of Ringsend/Sandymount. Zone 3 lies to the east of the Peninsula and is seen as having significant potential for citywide recreation and amenity use as well as cultural pursuits.
- 4.38 Between Zones 1 and 3 lies Zone 2 which is identified as a core area retained for public utilities to allow for existing and future needs. Waste water treatment and Waste to Energy Thermal Treatment plants are specifically mentioned in the DEGW 2002 report recommended strategy.
- 4.39 It is significant to note that the DEGW Report recommended strategy for future redevelopment of the Poolbeg Peninsula does not envisage any inherent conflict between providing for the development of a Waste to Energy Facility in the area and also realizing the significant potential for substantial residential and commercial development elsewhere on the same peninsula. Development capacity studies undertaken by DEGW for Dublin City Council indicate that using a 30/70 mix between commercial and

residential land uses the Poolbeg Peninsula could accommodate an additional residential population of the order of 10,000 persons plus some 100,000 sq.metres of commercial new floorspace which in turn could support an additional 7,200 new jobs in the area. And all of this is predicated upon the coexistence of these new uses with existing and new public utilities including waste water treatment facilities and also the proposed Waste to Energy Plant.

- 4.40 The second phase of the process was the Poolbeg Landscape Plan prepared for Dublin City Council in 2005 by DEGW/Camlin Lonsdale. This is a concept plan that sought to accommodate and to link together the many diverse components of infrastructure and development (both existing and proposed) into 3 zones of development. The scope embraced energy generation and water treatment infrastructure, recreational resources and activities, as well as commercial activity and new homes for future residents of the area. Explicit provision is made for the Waste to Energy Facility at Pigeon House Road (referred to as Thermal Waste Treatment Plant).
- 4.41 An interesting aspect of the Camlin Lonsdale Landscape Report is the observation that the Poolbeg Peninsula offers opportunity to *“consider exceptionally large objects as credible components of a contemporary landscape composition”*. (ref. page 24 of the 2003 DEGW/Camlin Lonsdale Report). The Poolbeg Project describes three broad zones of development character. The nature of specific development projects within each particular zone is/will be driven by the need to consolidate new with existing development forms through consideration of:-
- Relationship to public utility infrastructure
 - Overall design intention towards each character area
 - Role within a comprehensive landscape plan
 - Timing of delivery of commercial development projects
- 4.42 The Landscape Plan is presented as a flexible framework and an agenda for discussion between design teams for specific projects and those charged with development management. It is on this basis that generic parameters are presented by DEGW/Camlin Lonsdale for built form and open space as opportunities rather than prescriptive criteria for the character of individual buildings. Investment in landscape infrastructure is recommended as well as substantial expansion westwards of Irishtown Nature Park to link with the major new development envisaged for Zone 1. A strategic new open space- called Wood Island is proposed to the North of the site of the Waste to Energy Facility on the North side of Pigeon House Road, and also the refurbishment of existing public realm opportunities such as Pigeon House Harbour.
- 4.43 The locality in which the proposed WtE Facility is situated is described by DEGW/Camlin Lonsdale as a 21st Century Utility Park. The Consultants emphasise the need to improve road access so as to better connect Zone 1 with Zone 3 via Zone 2 especially for public access. The main destinations highlighted are the waterfront edges of the Bay and also the River Liffey.

- 4.44 The land take for public utilities is recommended to be defined by reference to individual expansion requirements and also the need to provide for safety and security issues. The interface between new buildings and the landscape is proposed to consist of 3D hard landscape design elements.
- 4.45 Under the heading of Implementation and Design parameters the Consultants DEGW/Camlin Lonsdale propose that new utility structures should exhibit high design quality since these structures will form parts of what will become what the Consultants term “*a new cultural landscape*”. These sentiments have been responded to in the project that is now seeking approval from An Bord Pleanála in that the design of the structure has been the responsibility of Danish Architects Friis and Moltke. Friis & Moltke Design, is a long established firm of Danish Architects, and has provided numerous design solutions for construction, planning and industrial design projects in Denmark and abroad. Each project is made with a desire to create a strong link between form and function. This has resulted in a number of prestigious prizes and awards in Denmark and abroad.
- 4.46 The Draft Framework Plan notes that the South Bank area is the principal location for the majority of Dublin City’s public utilities. The Plan identifies both existing and proposed utilities, including the proposed thermal waste treatment plant. Due to the presence of existing and proposed utilities the Plan establishes a constraints picture for the site based on short and long term constraints based on the lifespan and likelihood of future utilities relocation.
- 4.47 The South Bank and Poolbeg Strategic Framework Plan identifies a specific location for the provision of a thermal treatment waste facility. In this regard, the subject lands lie within Principle Development Area 5 as defined in the Poolbeg Project document which is part of the overall Development Framework Plan. Under the Plan, Area 5 is designated for a “*30yr+ Ringsend CCGT plant / Thermal Plant*”. The Plan further states as follows in relation to Area 5:-
- Area 5 :**
- “New Ringsend power plant and possibility of new thermal waste treatment plant (on Port lands). Forms part of a ‘hard’ core of utilities that include areas 5 and 7. Small area adjacent to Pigeon House Road is in private ownership” (Poolbeg Project document, p.7).*
- 4.48 The Framework Plan defines three zones of character. The subject lands are situated in Zone 2 the objective of which is “*to allow for operation and expansion of utilities with sufficient new development to establish a waterfront related development character*”
- 4.49 Development Zone 2 is further described as,
- “A core area retained for public utility functions that would allow for further limited expansion of the same (potential thermal waste treatment plant). Primary potential for intervention*

includes environmental improvement measures through the landscape strategy to increase accessibility of coastal routes, Irishtown Nature Park and through-access to South Bull Wall. Longer term potential to accommodate development extension zones to northern and southern edges”(Dublin South Bank Strategic Development Framework).

- 4.50 The site identified by Dublin City Council in their tender documents for the proposed thermal treatment plant, is noted and is considered as part of an overall land parcel including the ESB power plant. This land holding is noted as forming a ‘hard’ core of utilities mainly on Port lands and is considered to have a lifespan in excess of 30 years.

5.0 EU URBAN EXAMPLES OF WASTE TO ENERGY PROJECTS

KIRKLEES METROPOLITAN AREA SOUTH YORKSHIRE UK

- 5.1 In October 2003 I visited the Kirklees Metropolitan Council's municipal Energy from Waste Plant which is operated by Sita Kirklees Ltd. under a Private Finance Initiative that is supported by the UK Government. The plant has a throughput of 136,000 tonnes per annum and has been designed to fully comply with the EU Incineration Directive and the plant also has a full IPPC permit issued by the Environment Agency. The plant produces some 10.5 MW of electricity for export into the national grid. It also has the capacity to supply up to 3MW of steam for a future district heating scheme.
- 5.2 Kirklees Metropolitan Council (KMC) provides local government services to 395,000 residents in the West Yorkshire towns centred upon Huddersfield. It covers an area of around 40,800 hectare, with a mix of rural countryside and urban towns, making it the third largest Metropolitan District by geographical area in England and Wales. The main town and administrative centre is Huddersfield. Kirklees is the most populated borough or district in England not to have city status. The WtE facility is located on a 4 hectare site about 1.5 km north of the city centre of Huddersfield. The site lies between the Broad Canal and a railway line which travels along a substantial viaduct/embankment. There is an extensive residential area (Hillhouse) within 500 metres of the WtE facility. There is also a school and a retail park within 600 metres of the facility. According to the UK Environment Agency there are no significant environmental or planning issues arising from the location or operation of the WtE facility in Huddersfield. The plant has received a very positive assessment as regards best practice by the Audit Commission for England and Wales. The Unitary Development Plan for Kirklees has zoned the Emerald Street site for Waste to Energy purposes.

SPITTELAU WtE VIENNA AUSTRIA

- 5.3 In February 2004 I visited the main municipal Waste to Energy Plant at Spittelau in Vienna which is the capital city of Austria. Vienna has a current population of some 1.6 million persons. According to EUROSTAT, the EU Statistics Office, Vienna is among the richest European city regions. With respect to gross regional product per capita the Greater Vienna area occupied 4th place within the EU behind London, Luxembourg and Brussels. Its fourth place was shared with Paris and Stockholm.
- 5.4 The municipal Waste to Energy facility at Spittelau which is on the west bank of the River Donau (The Danube) is in the northern inner suburbs of the city of Vienna. The Waste to Energy Facility at Spittelau includes a district heating plant. The WtE facility produces 60 MW of electricity from 270,000 tonnes of waste. The district heating scheme generates heat for more than 200,000 private households and 4,400 public buildings including Vienna's largest hospital. Regular monitoring and improvements to the exhaust gas purification plant have set new standards for pollutant emission control.

- 5.5 The WtE Plant at Spittelau was designed by the Viennese Architect and Artist Friedensreich Hundertwasser who was a convinced environmentalist and only agreed to undertake this project in an honorary capacity after long discussions on its environmental aspects. The Spittelau plant has become a tourist attraction and the surrounding locality includes a variety of modern architectural landmarks and there are also University Departments situated close by as well the city's largest hospital which is connected to the district heating system. The Spittelau Plant is in accordance with the local development plan for Vienna.

WASTE TO ENERGY FACILITY AT ALKMAAR THE NETHERLANDS

- 5.6 In the Netherlands 100% of residual household waste currently goes to incineration. This imperative is laid down by Dutch Law. Five million tonnes of waste are burned every year in 11 municipal incinerators. The largest municipal facility is in Amsterdam and this handles in excess of 1.2 million tonnes per annum.
- 5.7 In February 2004 I visited the Waste to Energy Plant known as Huisvuilcentrale at Alkmaar which is about 30 km north of Amsterdam. Alkmaar is a small city with a population of some 94,455 persons in 2006. It is located in the Province of North Holland which had a population of 2.6 million persons in 2006. The Huisvuilcentrale Waste to Energy Plant is an integrated waste management facility which operates to standards set under the EU Directive on Waste Incineration. Huisvuilcentrale processes 670,000 tonnes of waste each year, of which 6.5 percent by volume remains as residual waste following incineration. Of this, 6.1 percent (bottom ash and fly ash) is recycled or re-used and 0.4 percent (salt) is recycled for use as road salt. Scrap metal, aluminium, copper, tin and zinc are recovered from the bottom ash and the bottom ash residue is used in road construction. Fly ash is used as filler in the production of asphalt. NV Huisvuilcentrale N-H markets these residual products in partnership with a recycling company.
- 5.8 Huisvuilcentrale at Alkmaar is located on the edge of the urban area and is surrounded by dairy farming. Alkmaar is an important centre for cheese production. The WtE plant at Huisvuilcentrale runs a bio-monitoring programme as part of continual flue gas monitoring. Agricultural products from the surrounding area, such as spinach, cabbage and milk are analysed by an independent research company to highlight any effect that the emissions may be having on agricultural and horticultural produce. There is an agreement with local farmers and growers to pay damages if any contamination occurs. About 150-200 trucks deliver waste to the plant each day. Each year some 140,000 tonnes of waste arrive to the Waste to Energy Plant by barge via the North Holland Canal. The Plant generates some 78MW of electricity each year via steam, and of this some 70MW is delivered to the national grid with the residual 8MW consumed by the Plant itself. After the energy recovery phase in the WtE facility, used steam is available for district heating and to supply energy to a local football stadium.
- 5.9 In Holland there has been previously strong public resistance to municipal incineration plants but public acceptance has been secured

by achieving high environmental conditions and performance standards as demonstrated by the Alkmaar facility, where permission was conditional on installation of one of the best air pollution control systems in Europe. In costs terms the alternatives to incineration in the Netherlands for dealing with residual waste are more expensive, and landfill is not permitted by law for combustible waste. The Huisvuilcentrale site is located within an industrial area and is in accordance with the local development plan for this area.

CITY OF AMSTERDAM WASTE AND ENERGY COMPANY – WASTE TO ENERGY PLANT AND WASTE FIRED POWER PLANT WESTPOORT

- 5.10 Earlier this month, I visited the City of Amsterdam Waste to Energy plant which is located at Australiehavenweg in the Westpoort area of the city. The location is about 5 kilometres from the city centre of Amsterdam and about 1 kilometre from the nearest large residential area. The site is in an industrial area of the Port of Amsterdam. The Waste and Energy Company (AEB) is a City of Amsterdam Corporation, where the local authority is the sole shareholder. As a municipal corporation, AEB's primary catchment area for waste is the city of Amsterdam itself, as well as 19 affiliated local authorities in the region. The company has operated a Waste to Energy Plant in the city's western port district since 1993. The site also houses a hazardous waste depot and the regional waste sorting station for Amsterdam. The general area of this site is industrial in character and the Waste to Energy Plants and related infrastructure are in accordance with the provisions of the local development plan for this area. The facility is close to the city's waste water treatment plant and it accepts and incinerates sewage sludge and biogas from the Waste Water treatment plant operated by Waternet since 2003. Waternet is the first company in the Netherlands that combines all water services under one agency. Waternet is responsible for drinking water, waste water, surface water and coastal protection works. The existing AEB waste to energy plant can process in excess of 900,000 tonnes of waste including sewage slurry a year. Sewage slurry accounts for about 11% of the total feedstock for the Waste to Energy Plant. Biogas from the waste water treatment plant also is used in the Waste to Energy Plant (approx. 25,000 cubic metres per day) and in return this supplies the Waternet waste water treatment plant with heat and power requirements.
- 5.11 The capacity of the WtE plant will rise to 1.4 million tones per year this year when a new Waste Fired Power Plant which is at present being commissioned, begins commercial operation in tandem with the existing Waste to Energy Plant. The plant supplies district heating to more than 25,000 homes in the Amsterdam Nieuw West district. The plant has the capacity to supply district heating for some 161,000 homes. Extensions are in planning to serve other areas of the city to bring the customer base up to this level. In addition, the Waste to Energy Plant generates 545,000 MW of electricity each year. With the coming into service of the Waste Fired Power Plant, electricity generation will rise to over 1 million MW per annum. The use of sustainable energy contributes in a positive way by reducing the emission of carbon dioxide by 351,000 tonnes per annum. This also

will rise to some 600,000 tonnes when the WFPP plant is in full production later this year. The footprint of the two waste to energy plants is of the order of 120 metres length by 140 metres width overall. The total building height is in the order of 60 metres over sea level and the two chimney stacks have a height of about 100 metres each.

- 5.12 Bottom ash produced by incineration is recycled/reused. The products generated are road building materials, sand and gravel for the construction industry, raw material for use in production of sand-lime bricks and concrete. Iron and non-ferrous, semi-precious and precious metals are recovered from the bottom ash using patented technologies and these materials are reused by the metals industry.

L90 ESBJERG DENMARK

- 5.13 In February 2004 I visited the L90 Waste to Energy Plant in Esbjerg on the West coast of Denmark. Esbjerg is the fifth largest city in Denmark with a population of 114,000 persons in 2005. The city of Esbjerg is a large transport hub for both rail and highway traffic, and is an important port for Danish North Sea oil offshore activity. It has an airport, and is a centre for engineering machine building. The municipality has a number of museums, theatres (opera, ballet and drama), and several libraries. The city was once Denmark's biggest fishing harbour, and the harbour is still an economic driving force in the town. Besides the fishing industry Esbjerg is also the main city for Denmark's oil and offshore activities. It also is one of the central towns of the University of Southern Denmark, and is a branch of Aalborg University.
- 5.14 L90 is a '*state of the art*' Waste to Energy facility located on the South side of Esbjerg near the harbour, and within the built up urban area. The project is in accordance with the Local Plan for Esbjerg. Planning for the project commenced in 1999 and the plant was commissioned in 2003. L90 is a union of 35 municipalities with more than 600,000 inhabitants in the mid Jutland area (the West of Denmark) and was formed for the purpose of owning and operating the new waste to energy plant. The fuel is domestic and industrial waste, and the plant has a design capacity of 24 tonnes per hour at a heat value of 11 MJ/kg, corresponding to 180,000 tonnes per annum. L90 is presently the second largest plant built in Denmark. The Facility in addition to solving the waste problem for the catchment area served, produces electricity and district heating, and in so doing it replaces some of the coal-based heat production at Esbjerg previously relied upon. The L90 plant features the latest technological advances in the field of waste incineration as regards both boiler and combustion technology and emissions to air and water. Danish Law now requires that all combustible municipal waste must be incinerated, with particular emphasis on waste to energy achievement. L90 was designed by Danish Architects Friis and Moltke who also are the designers of the proposed Poolbeg Waste to Energy Plant.

6.0 POOLBEG - LOCAL PLANNING HISTORY - HEALTHCARE WASTE INCINERATOR – PROPOSAL BY BIOBURN AT PIGEON HOUSE ROAD RINGSEND, DUBLIN 4

Background

- 6.1 This was a proposal to develop a facility to deal with healthcare hospital waste which is very different in scale and in nature from the subject matter of the current application by Dublin City Council to An Bord Pleanála for approval. However, there were certain planning considerations that arose during the Bioburn application that provide an interesting comparison with the current scheme. A planning application was lodged with Dublin Corporation (now Dublin City Council) in February 1995 for the construction of a healthcare waste disposal incineration facility and also for incineration of confidential waste paper with a maximum capacity waste throughput of 24 tonnes per day to be located at Pigeon House Road, Ringsend, Dublin 4.
- 6.2 The scheme proposed disposal of 7,500 tonnes of waste per annum of which approx. 88% (6,600 tonnes) would consist of segregated hospital/bio-medical waste (plus 5% pharmacy waste), and 12% (900 tonnes) would consist of confidential waste paper. The main waste component was healthcare hazardous waste.
- 6.3 Dublin City Council made a decision to refuse permission for the proposed development based on 5 reasons as follows;
1. *The proposed development is considered premature pending clarification of a strategic plan based on the national health services waste policy which will determine the locational criteria for such treatment plants, the preferred waste disposal technologies and the catchment areas for health care risk waste. Its provision might inhibit more appropriate alternative forms of waste treatment at more suitable locations within the Greater Dublin Area.*
 2. *Having regard to the objectives of the 1991 City Development Plan and the land use zoning objective of the area, the proposed development would be contrary to the proper planning and development of the area and to the provisions of the 1991 City Development Plan.*
 3. *The proposed incineration facility by reason of the processes involved and the close proximity of the site to recreational and amenity facilities, including wildlife habitat, which are listed for protection in the 1991 Dublin City Development Plan and E.U. Directive, (S.I. No. 59 of 1994) could give rise to unacceptable hazards as a result of activities at the plant not controlled by licenses from the Environmental Protection Agency. The proposed development would therefore be contrary to the proper planning and development of the area.*
 4. *Access to the site is via the large residential area of Irishtown/Ringsend/Sandymount. The transportation of hazardous clinical waste to the site and removal of the ash*

off the site via these residential areas could give rise to an unacceptable risk as the transportation of such waste is not governed by any legislation. The proposed development would therefore be contrary to the proper planning and development of the area.

5. The applicants have failed through their non-submission of a baseline study, to supply sufficient information to demonstrate that the plant could be operated without causing a detrimental effect on flora and fauna in the vicinity. The proposal would be premature pending the submission of such information and as such would be contrary to the proper planning and development of the area.

6.4 The proposed development was appealed to An Bord Pleánala, and an oral hearing was held (An Bord Pleanala ref. no. PL29S.095890). The Planning Inspector in his report considered that the proposed development should be refused permission for 5 reasons. The Board decision given on 30 November 1995 was to refuse permission, but for the following 3 reasons:-

1. The Health Services Waste Policy was circulated to the health agencies in September, 1994. Subsequently, a strategic plan for the treatment and final disposal, on a national basis, for healthcare risk waste in the public health service was announced and discussions in relation to the plan have reached an advanced stage. It is considered, therefore, that the proposed development would be premature pending finalisation of the proposals being developed at national level in relation to healthcare risk waste.

2. Having regard to the location of the proposed development close to the centre of Dublin City and to the scale of the proposed development, which is designed to serve the catchment area of the North Eastern, Midland, Eastern and South Eastern Health Boards, it is considered that the proposed development would give rise to an unacceptable level of movement of vehicles containing healthcare risk waste along traffic routes passing through heavily populated residential areas.

3. It is considered that the proposed development constitutes overdevelopment of the site having regard to the scale of the development and to the restricted size and configuration of the site, with limited on-site parking for vehicles and inadequate storage facilities. The proposed development would, therefore, be contrary to the proper planning and development of the area.

Planning Considerations

6.5 The Inspectors Report to An Bord Pleanála assessed the proposed development under the following headings;

- Visual Amenity

- Devaluation
- Zoning
- Prematurity
- Traffic Hazard/Risk
- Size of Site
- Inadequate Baseline Study
- Impact on Amenity/Wildlife
- Miscellaneous

Visual Amenity

6.6 The site of the proposed development was located within a long established industrial area. The proposal involved the refurbishment of existing buildings which were in poor condition and revisions to the boundary treatments. A significant element involved the erection of a 20 metre chimney and associated gas conditioning towers (approx. height 16.85m). The Inspector noted that *“these stainless steel structures would probably be most visible from Sandymount but given the distance involved and the existing industrial landscape I do not consider that they would injure the visual amenity of the area.”* He noted that the plant would be largely dwarfed by the existing E.S.B. Power Station and would not therefore materially alter the existing situation.

6.7 In this regard, it is pertinent to note the Inspector’s concluding remarks which were that *“there is no damage to the visual amenity of the area”*.

Devaluation of Property

6.8 The Inspector pointed out that the Ringsend/Sandymount area is a popular residential area for many reasons, including its accessibility to the city centre, its variety of house types, and also proximity to the coast. However, in relation to concerns that the proposed clinical healthcare waste incinerator could have an adverse impact on property values, he stated that *“Although the erection of an incinerator may create some short term drop in value I do not consider that in the medium/longer term it would be a significant deterrent on house prices.”*

Land Use Zoning

6.9 Under the Dublin City Development Plan 1991, which was the statutory plan at the time, the site was zoned ‘G’ – *‘to provide for general industrial use’*. Within this category ‘Special Industry’ was listed as being ‘open for consideration’. Section 15.8.8 of the development plan stated that open for consideration uses are uses which would not be acceptable in certain parts of the relevant use zone and would only be permitted where the planning authority was satisfied that the use would be consistent with the overall objective, would not have undesirable effects and would be consistent with the proper planning and development of the area.

6.10 While there was no definition under the Local Government (Planning and Development) Acts and the 1994 Regulations, of ‘Special Industry’, the Inspector felt that it was not unreasonable to consider that the proposed development came within the ‘special industry’ category and was therefore ‘open for consideration’.

- 6.11 In evaluating a planning application within an industrial zone the Inspector concluded that *“the planning authority or the Board are entitled to come to the conclusion that such a use is contrary to the proper planning and development of the area (including the preservation and improvement of the amenities thereof).”*

Prematurity

- 6.12 One of the three reasons for which permission was refused by the Board, was that the proposed development was premature having regard to prevailing government policies.

- 6.13 At the particular time of the Bioburn planning application and the subsequent appeal, it was proposed Government policy to replace existing incinerators for the disposal of clinical and hospital waste with new non-incineration technologies. In addition, the policy of the Department of Health was to encourage good waste management practices, including prevention, reduction and segregation as well as the preparation of waste management plans. A strategic plan for the final disposal of healthcare waste envisaged four central treatment plants utilising new technologies, two of which would serve the Dublin area. A further factor was that the publication of the Waste Bill 1995 required Local Authorities and the EPA to prepare detailed Waste Management Plans.

- 6.14 With all this in mind, the Inspector stated that,
“...the reality would be that, if built, by reason of its very size it would prejudice the development of alternatives at other locations. It is therefore in my opinion reasonable to state that it is premature in terms of health services policy and that the Board are entitled to take this into account in reaching their decision.”

Traffic Hazard/Risk

- 6.15 In traffic generation terms the proposed development was not considered to be exceptional and it was not considered to create a traffic hazard. However, the risk associated with the transport of hazardous healthcare waste to and from the site through large residential areas of Irishtown/Ringsend/Sandymount, was an issue of concern of Dublin Corporation in making its decision to refuse permission.

- 6.16 In response to this concern, the Inspector stated in his report that,

“I would accept that the existing situation in relation to transportation of hazardous waste is most unsatisfactory and that the proposed development will inevitably involve transportation along some primarily residential roads within the Dublin Area. In the circumstances I do not consider that the use of a reason such as this by the planning authority would be unreasonable.”

- 6.17 The Inspector questioned whether the site location was an ideal location in land use terms and an alternative location somewhere close to the C-Ring Motorway was referred to as potentially a better option given that the traditional inner city hospitals e.g. Jervis Street, The Richmond, and The Adelaide were being replaced by large

hospitals such as Beaumont and Tallaght which would be major waste generators, but which would be relatively close the M50 motorway.

- 6.18 However, it was acknowledged in the Inspector's Report that while the planning authority and third parties referred to alternative locations for the proposed development in general discussion, this was of little importance to the Board. The Board's function was to adjudicate on the case in hand.
- 6.19 On the issue of traffic hazard, the Inspector concluded that;
"transportation through densely populated residential areas of the city is undesirable, especially in the context of proposed catchment areas, travel distances etc. and does represent an unacceptable risk to residents, especially children. Spillages/accidents etc. involving this type of waste (healthcare waste) must inevitably constitute a risk to public health."

Size of Site

- 6.20 The Inspector assessed the Bioburn site in relation to car parking, accommodation space, separation distances between particular conflicting areas of the proposed development and fire safety aspects. He concluded that *"this site which is little larger than a standard rural housing site, is very restricted in terms of parking, storage and layout; it allows little room for flexibility and could create serious problems over time."*
- 6.21 Having regard to the size of the Bioburn site which had very limited parking areas, limited storage space and close proximity of plants/operations it was considered that there was inadequate space available, and little or no flexibility in which to alter the operation as needs changed over time.
- 6.22 The cumulative body of evidence put forward in that particular appeal led the Inspector to conclude that the site was unsuitable for the proposed development and that the project would be contrary to the proper planning and development of the area. It was therefore recommended that permission be refused.
- 6.23 As stated above, the Board issued an Order to refuse permission for three reasons.

PLANNING CONCLUSIONS AND IMPLICATIONS FOR PROPOSED DEVELOPMENT OF A WTE FACILITY AT POOLBEG

- 6.24 From an analysis of the above planning application and also by reference to current planning and development policies, the proposed Waste to Energy Facility at Poolbeg is discussed in respect of key issues of concern relating to proper planning and sustainable development

- **Prematurity in relation to Government / Regional Policy**

There is no issue of prematurity in either Government national or regional policy in this regard in relation to the proposed development at Poolbeg Peninsula as the provision of the

proposed Waste to Energy facility is enshrined in both national government and regional policy.

- **Statutory Plan**

The provision of a thermal treatment plant at the subject site must be decided on its merits in the Dublin City Development Plan, 2005 – 2011. Because of the statutory provisions of the Protection of the Environment Act 2003, the policies and objectives of the Dublin Regional Waste Management Plan 2005 legally form part of the Dublin City Development Plan 2005-2011. It is noted that the Waste Management Plan 2005 contains a specific objective for the provision of a Waste to Energy Plant at Poolbeg. On that basis the project is also an objective of the Dublin City Development Plan 2005 to 2011. The Dublin Docklands Area Masterplan 2003 and the Draft Poolbeg Framework Plan also specifically make such provision for the proposed WtE facility at Poolbeg. Section 15 of the Planning and Development Act 2000 imposes a duty on a planning authority to take such steps within its powers as may be necessary for securing the objectives of the development plan.

- **Visual Appraisal**

This is perhaps the most contentious issue of the proposed Waste to Energy project given the high visibility of the site from Sandymount Strand and the proximity of the amenity area of Irishtown Nature Park. The architectural standard will have to be very high and care will be required to execute this in the detailed construction and external finishes of the facility. It also is important to note the long established pattern of development of industrial and related infrastructure and the industrial character of the receiving environment in this part of the Poolbeg peninsula.

- **Access through Residential Areas**

There are a number of mitigating features in relation to the proposed scheme that were not present previously at the time of the Bioburn project. Firstly, the waste that will be sent to the site on Pigeon House Road is non-hazardous. Any hazardous residual waste derived from the process will either be sent abroad or will be treated on site in the longer term. Transport of such residual wastes could be managed to leave the area either via the port or the port tunnel, thereby avoiding travel within residential areas. In addition the road infrastructure in place at the time of the Bioburn appeal decision was significantly different to that pertaining today. There was no Dublin Port Tunnel. The proposed Macken Street bridge was still at preliminary planning stage and the South East motorway was not constructed.

- **Property Devaluation**

There may be perceived adverse impacts of the development of a Waste to Energy facility in the short term, which could have a slight impact on the housing market in nearby Ringsend and Irishtown for a short time. However, as the proposed development is being constructed in an established industrial

area, the actual impacts are unlikely to be such as to sustain any long term impact on the property market. A separate report on property values in relation to the proposed development has been prepared by Ms. Marie Hunt of CB Richard Ellis.

- **Site Selection Process**

There has been a very detailed and thorough site selection process undertaken in relation to the proposed site at Pigeon House Road over a considerable number of years. It is difficult to accept in this regard a criticism that adequate site selection procedures were not engaged in for this particular project

- **Site Suitability**

Given the size and configuration of the site and the likely requirements of the plant it would appear that the site is adequate to safely accommodate the proposed development, and provide for all necessary support facilities.

- **Environmental Impact Assessment**

In the Bioburn case, an EIS was not prepared as the project was not one for which an EIS was required at the particular point in time. Neither the Planning Authority nor the Board requested an EIS, and the absence of an EIS was not given as a reason for refusal of planning permission on appeal. In the current project, an EIS has been prepared and has been submitted to An Bord Pleanala as part of the consent process.

- **Impact on Amenity/Wildlife**

In the Bioburn case, one of the reasons for refusal cited by the planning authority was the absence of a baseline study such that it could be demonstrated that the project would not have an unacceptable impact upon flora and fauna. That particular reason was not upheld by An Bord Pleanala in its decision on the appeal. In the present application, an EIS has been prepared which addresses likely significant impact on the environment.

7.0 OVERALL CONCLUSIONS

- 7.1 Having regard to all of the foregoing arguments, reasons and considerations it is my considered professional opinion that the proposed development of a Waste to Energy Facility at Pigeon House Road Poolbeg is a necessary development for a waste to energy facility that is in accordance with national regional and local planning policies. In my opinion the development would not seriously injure the residential amenities of the vicinity and of the wider area, would be in keeping with the industrial and infrastructural mix and character of the local area and would be generally in accordance with the proper planning and sustainable development of this area, by reference to the policies and objectives of the statutory development plans.
- 7.2 The Environmental Impact Statement prepared in connection with the application for consent to An Bord Pleanála is generally in accordance with the requirements of the legislation and the guidelines laid down as regards the content of such documents. In my professional opinion the overall conclusions of the EIS as regards likely significant impacts upon the environment are robust and are not unreasonable. An Bord Pleanála is respectfully invited to conclude in its assessment of the environmental impact of the project that this is generally acceptable and that this project would be in accordance with the proper planning and sustainable development of this area. An Bord Pleanála is requested to confirm the compulsory purchase order for the subject site as this has been applied for on that basis, subject to whatever appropriate planning conditions as An Bord Pleanála thinks proper to attach to its consent for this particular facility, in the interests of the common good.

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