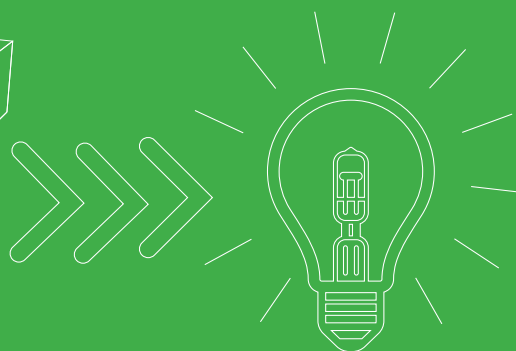
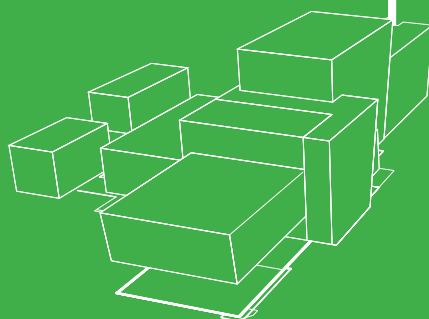




# RINGASKIDDY RESOURCE RECOVERY CENTRE

2016



Planning

Report



COAKLEY O'NEILL  
town planning





## **PLANNING AND DEVELOPMENT ACTS**

### **FINAL PLANNING REPORT ON THE**

# **PROPOSED RINGASKIDDY RESOURCE RECOVERY CENTRE, RINGASKIDDY, CO. CORK**

**on behalf of the**

**INDAVER**

**Prepared and submitted in**

**JANUARY 2016**

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## **1. Introduction and Purpose**

This planning report has been prepared to accompany the application made under section 37E of the Planning and Development Act 2000 by Indaver Ireland Limited ("Indaver") for permission to develop the Ringaskiddy Resource Recovery Centre, comprising a Waste to Energy Facility (waste incinerator with energy recovery, and associated works on lands located in the townland of Ringaskiddy, Co. Cork.

The purpose of this planning report is to set out the planning policy context within which the proposed development is advanced, and to consider issues of compliance with the development management standards of the Cork County Development Plan 2014 and the Carrigaline Electoral Area Local Area Plan 2015. An assessment of the proposed development in the context of the planning history of the site, including reference against the previous decision of An Bord Pleanála is also set out in the report.

## **2. Site Location and Zoning**

### **2.1 Site Location and Context**

Section 4.2 and Figures 4.1-4.6 of the EIS describe the proposed development site in detail.

The proposed development site covers an area of approximately 13.55 hectares and is situated on a north-facing slope. The land rises from north to south, and also generally from east to west. The site is currently covered in scrub with some pockets of trees and open grass areas.

The overall outer boundary of the site is roughly rectangular in shape with narrower sections at the eastern and western ends, and with the Hammond Lane Metal Recycling Company Ltd metal/scrap processing yard located centrally within the site with its own direct access from the local L2545 road to the north. This yard does not form part of the proposed development site. There is a small rectangle of land not in Indaver's ownership that is encircled by the proposed development site. There is also an ESB Networks compound located between the eastern boundary of the Hammond Lane yard and the Indaver site.

The proposed development site is bounded to the north by the L2545. This road is an extension of the N28 that leads from Ringaskiddy past the proposed development site and over the bridge to the crematorium on Rocky Island and Haulbowline Naval base.

The Irish Maritime and Energy Research Cluster (IMERC) campus is being developed on the northern side of the L2545 road. The National Maritime College of Ireland (NMCI), the first major component of IMERC, opened in 2004. The Beaufort Research Laboratory (construction completed in 2015), is located on the site to the east of the National Maritime College of Ireland, will be IMERC's second major building. Some warehouses are located on the northern side of the L2545 road, to the west of the National Maritime College of Ireland.

The land to the immediate south of the Indaver site is owned by IDA Ireland and is in agricultural use. Just beyond the southern boundary, a high voltage electricity line runs west overhead to connect with the ESB sub-station near Shanbally and east (then north) to Haulbowline Island. Further to the southwest, the land continues to rise slightly to create the ridgeline on which a Martello Tower is located at the highest point.

The land to the west of the site is in agricultural use. Further to the west there is a single, large, white-painted residential property (Ring House) located approximately 50m from the boundary, set within a field and surrounded by trees.

The centre of Ringaskiddy village is located approximately 800m to the west of the site of the proposed development. The Port of Cork's port facilities are located to the north of Ringaskiddy village.

The Ringaskiddy peninsula is industrial in character, with a number of pharmaceutical companies having large manufacturing facilities in the area, in addition to the Port of Cork facilities. Recent additions to the Ringaskiddy area include three 100m hub-height wind turbines, located on industrial sites. A fourth similar wind turbine has received planning permission.

The Cork Harbour area has a mixture of urban developments, such as Cobh, Rushbrooke and Monkstown, and pockets of industry near the shore. Spike Island is located approximately 500m to the east of the site, with the disused Fort Mitchell prison being situated there. There is an Irish Naval Service base situated on Haulbowline Island and a crematorium on Rocky Island. Both islands lie to the north of the site.

## 2.2 Zoning

As illustrated in Figure 1 below, the site is predominantly zoned part of the I-15 objective, which is suitable for large stand-alone industry with suitable provision for appropriate landscaping and access points and provision for open space buffer to the Martello Tower and its associated pedestrian access.

A small section of the site includes lands zoned objective O-08, which characterises an area of open space that acts as a buffer between proposed industry and established uses.



**Plate 1: Eastern site boundary**



**Plate 2: Internal view of the site (from the east)**



**Plate 3: Internal view of site (looking north)**



**Plate 4: Internal view of site (looking west towards Hammond Lane)**





Plate 5: View of the site west of Hammond Lane



Plate 6: Internal view of the site looking north-east

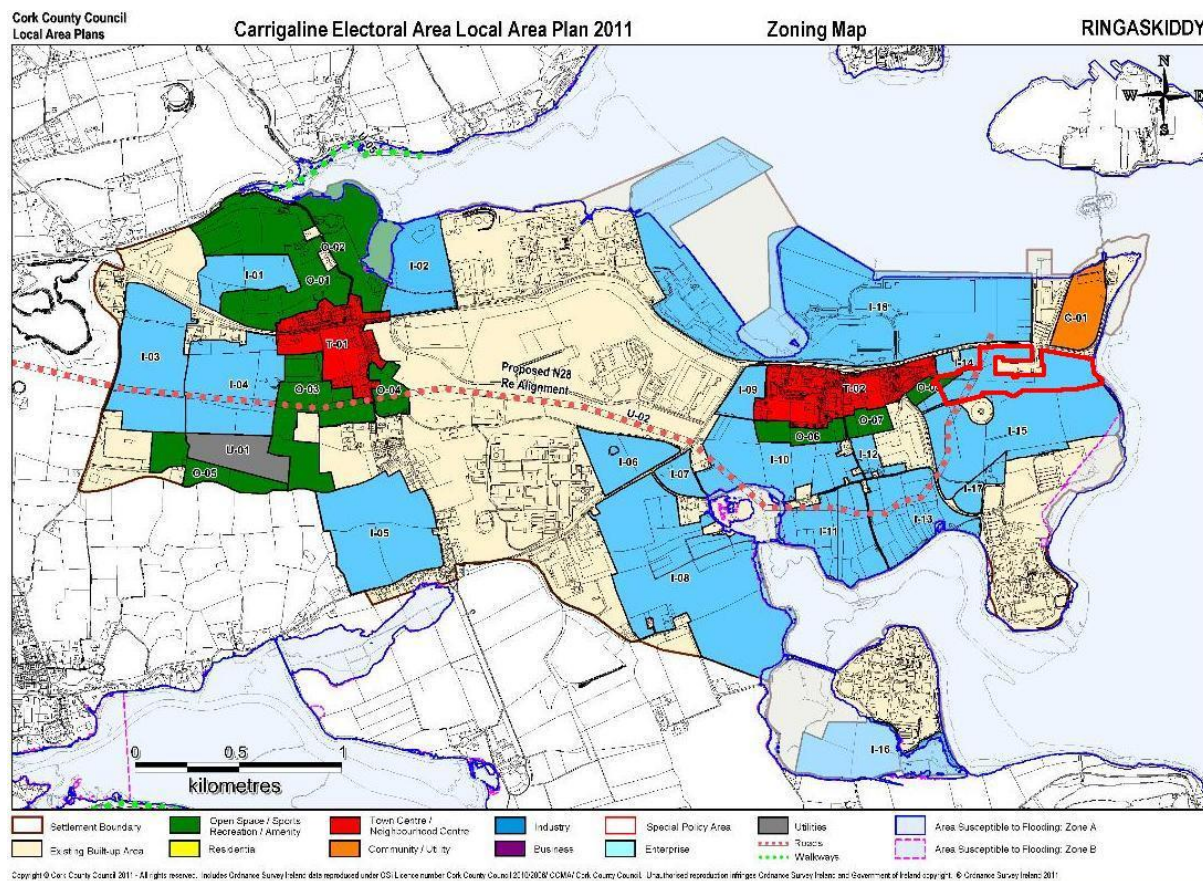


Figure 1: Carrigaline Electoral Area LAP 2015 (Site outlined generally in red)



### **3. Planning History**

#### **3.1 2001 Application**

On 13 November, 2001, Indaver made a planning application to Cork County Council for permission for development (register reference 01/6215) comprising the construction of a waste management facility a waste transfer station and a community recycling park, incorporating a main building, turbine building, office buildings, sampling building, warehouse, storage tanks, security buildings, electricity substation, service yards, car parks, roads, landscaping and site works including sewage treatment plants to treat sanitary effluent.

Cork County Council decided to refuse permission on 27 May 2003. However, on appeal, on 15 January, 2004, An Bord Pleanála granted permission (under ref. no. PL04.131196) for a waste management facility comprising a waste-to-energy facility, a waste transfer station, community recycling park, warehouse, storage tanks, security buildings, electricity substation, service yards, car parks, roads, landscaping and site works including sewage treatment plants subject to 27 conditions. Condition no. 2 restricted the development to the treatment of hazardous and non-hazardous industrial/trade waste as proposed in phase 1. Condition no. 3 stated that no hazardous waste from outside the state shall be accepted for treatment at the site. Condition no. 4 limited the annual tonnage of industrial/trade waste to be terminally treated to 100,000 tonnes.

The Board decided to grant permission in respect of the then proposed development having regard to:

- (a) the provisions of Section 54(3) of the Waste Management Act, 1996, and Section 98 of the Environmental Protection Agency Act, 1992 which preclude An Bord Pleanála from consideration of matters relating to the risk of environmental pollution from the activities associated with the proposed development,
- (b) the National Hazardous Waste Management Plan published by the Environmental Protection Agency in 2001, under Section 26 of the Waste Management Act, 1996,
- (c) the national waste management policy framework and strategy as set out in Government policy statements “Changing Our Ways” and “Delivering Change” published by the Department of the Environment and Local Government in 1998 and 2002 respectively, particularly the preference for thermal treatment with energy recovery over landfill disposal of residual waste,
- (d) the provisions of the Cork County Development Plan, 2003 in relation to waste recovery and recycling,
- (e) the geographical distribution of hazardous waste arisings within the state,
- (f) the location of the proposed development in the Cork Harbour Area which is the principal established area in Cork County for large scale pharmaceutical and chemical industry,
- (g) the location of the proposed development in an area zoned for stand alone industry in the current Cork County Development Plan (Ringaskiddy), notwithstanding the overall strategy in the plan to ensure the protection of land with potential for port related development and not to permit contract incineration facilities in industrial areas,
- (h) the location of a proposed national waste management facility adjacent to the N28 National Primary Route and the proposals for the improvement of the national road network in the area,
- (i) the topography of the site and the pattern of development in the area, and
- (j) the advice given by the National Authority for Occupational Safety and Health under the EC (Control of Major Accidents and Hazards involving Dangerous Substances) Regulations, S.I. No. 476 of 2000,

In arriving at its decision, the Board determined that the Ringaskiddy site is an appropriate location for a necessary national public utility and that the proposed development would not seriously injure the amenities of the area (including the Martello Tower, a protected structure), would not be prejudicial to the future development of the area for port related development, would be acceptable in terms of traffic safety and convenience and would be in accordance with the proper planning and development of the area.

#### **3.2 Waste/Industrial Emissions Directive Licence**

The Environmental Protection Agency (EPA) granted a waste licence to Indaver in November 2005. The licence was amended by the EPA in January 2014 to bring it into conformity with the Industrial Emissions Directive 2010/75/EC.

### 3.3 2008 Application

Subsequently, an application was submitted directly to An Bord Pleanála on 28<sup>th</sup> November 2008 (ref. no PL04.PA0010) under section 37E for a 10 year planning permission for a waste to energy facility for hazardous and non-hazardous waste and a transfer station facility, on a 12 hectare site located on lands opposite the National Maritime College, at Ringaskiddy, County Cork. The development included 23,390 square metres of buildings and will consist of the following elements:

(A) Waste To Energy facility (4.74 hectares) consisting of process building, 4 storey, 19,103 square metres, 42.5 metre maximum height; flue stack, 85 metres high; turbine hall, 1 storey, 875.8 square metres, 18.5 metres high; aerocondensor structure, 1 storey, 772 square metres, 20 metres high; security building, 1 storey, 85.8 square metres, 4 metres high; sampling laboratory, 1 storey high, 91.5 square metres, 4 metres high; solvent tank farm, service yard, solvent tanker unloading bays, ash and residue truck loading bays, tanker sampling bays, 1,800 cubic metre water storage tank, 8.0 metres high; pump house, 1 storey, 40 square metres, 4.5 metres high; 2 number weigh bridges, pipe racking, fuel storage tank; packaged sewage treatment plant, 38 kilovolt electrical compound, and ancillary site development works consisting of 26 number car parking spaces, underground attenuation/retention tanks, site services, 2 number site accesses, boundary fences and landscaping.

(B) Transfer station facility (1.4 hectares) consisting of drum store building, 1 storey, 1,347.5 square metres, 9.2 metres high; solvent storage bund consisting of 4 number 25 cubic metre tanks, 6.7 metres high; drum wash and Repak building, 1 storey, 268 square metres, 4.3 metres high; administration building, 3 storey, 903 square metres, 11.2 metres high; tanker loading bay; service yard, truck/roadtanker parking spaces, 1,200 cubic metres fire water storage tank, 10 metres high; 100 cubic metres contaminated water storage tank, 5.0 metres high; packaged sewage treatment plant and ancillary site development works consisting of 44 number car parking spaces, 2 number weighbridges, site services, underground attenuation/retention tanks, 1 number site access including gates, boundary fences and landscaping.

On 21 January, 2010, the Board decided to issue a notice under the provisions of Section 37F(1) of the Planning and Development Act, 2000 (as amended), requesting the omission of the municipal waste incineration element, further details on the works to prevent flooding of the public road and prevent erosion of the site, as well as a revised visual impact assessment. The applicant responded on 3<sup>rd</sup> August, 2010, and new public notices were required on 1<sup>st</sup> September, 2010.

Ultimately, on 9 June, 2011, the Board decided to refuse permission for four reasons, which can be summarised as follows:

- The Board was not satisfied that the provision of incineration capacity at this site was appropriate having regard to both the layout and limited size of the site and to the incompatibility with the Waste Management Strategy for the region or the Waste Management Plan for County Cork 2004
- While the provision of an incinerator to treat hazardous and industrial waste (100,000 tonnes per annum) was in accordance with national policy, the Board required the omission of the proposed treatment of municipal waste to reduce the scale of the development, as the development as proposed would constitute overdevelopment of the site.
- The Board was not satisfied that the impacts of the works proposed to the road serving the site were fully described and assessed, and that there was certainty in terms of their implementation and the responsibility for same and, consequently, that access to the proposed development would be available at all times.
- The Board was not satisfied that the proposed measures to prevent coastal erosion were sufficient in relation to implementation of such coastal protection measures and the impact of these works, including on other nearby property.

However, notwithstanding its decision to refuse permission, the Board considered that the incineration of hazardous and industrial waste might be acceptable for the following reasons:

- The provision of an incinerator of the order proposed, to cater for hazardous and industrial waste, was in accordance with national policy and constitutes an important element of national strategic infrastructure.

Furthermore, it was also satisfied that decisions in relation to this matter should not be influenced by short term fluctuations in the precise make up of hazardous waste arisings from one year to another. The Board had previously concluded, in 2004 in making its decision on PL 131196, that Ringaskiddy is an appropriate location for a hazardous waste/industrial waste incinerator.

- In relation to visual amenity, the site was on the north facing slope of a low hill, located in an area containing a number of large factories and Ringaskiddy Port, as well as relics of industrial archaeology from an earlier time. The Board had regard to the zoning of the land for a large stand-alone industry, as set out in the Carrigaline Electoral Area Local Plan, 2005. Any such industrial development would have a significant visual impact.
- The Board noted the deficiencies in the road network in the area, as well as evidence of some congestion. The Board noted that a reduction in the volumes of traffic to/from the development, resulting from omission of the grate incinerator, would mitigate adverse impacts. Furthermore, the Board considered that the proximity of the site to the National Primary Road N28, which it was proposed to improve, constitutes a factor in favour of the location for the development.
- The Board was generally satisfied that adequate measures had been taken to protect the overall development site from flooding, including designing the ground floor at an appropriate level. However, in relation to flooding of the access to the site, the Board was not satisfied that this matter, including associated remedial works such as raising the level of the road, had been adequately addressed.
- The Health and Safety Authority gave the Board advice in relation to land use planning, under Article 27 of S.I. No. 74/2006 — European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2006. In particular, the Health and Safety Authority did not advise against a grant of planning permission in the context of major accident hazards.
- The Board noted that the development is proposed on the basis of complying with the relevant EU emission standards. It was noted in this regard that incineration is an acceptable form of waste treatment under EU Directives and in Irish waste management policies. There was no objective scientific evidence to justify a refusal of permission for a properly licensed incinerator on the basis that the development would be prejudicial to public health.
- In relation to municipal waste incineration, the Board considered that the energy efficiency level of the proposed development had not been definitively established either way. It noted that the applicant had firmly argued that it would meet the 0.65 efficiency standard for a “recovery” operation, notwithstanding the case to the contrary put forward by those opposing the development. In any case, within the EU waste hierarchy and policy, incineration with energy recovery was preferred over landfill (Municipal Solid Waste – Pre-treatment & Residuals Management; EPA, 2009).

#### **4. Proposed Development**

Indaver proposes to develop a Resource Recovery Centre in Ringaskiddy in County Cork.

Chapter 4 of the EIS describes the proposed development in detail.

The proposed development will consist principally of a Waste To Energy facility (waste incinerator with energy recovery) for the treatment of up to 240,000 tonnes per annum of residual household, commercial and industrial non-hazardous and suitable hazardous waste and the recovery of energy. Of the 240,000 tonnes of waste, up to 24,000 tonnes per annum of suitable hazardous waste will be treated at the facility. The proposed development will maximise the extraction and recovery of valuable material (in the form of ferrous and non-ferrous metals) and energy (in the form of 21 megawatts of electricity) resources from residual waste.

In addition to the provision of the Waste To Energy Facility, the proposed development will include an upgrade of a section of the L2545 road, a connection to the national electrical grid, an increase in ground levels in part of the site, coastal protection measures above the foreshore on Gobby Beach and an amenity walkway along the eastern boundary and part southern boundary of the proposed development site.

An Environmental Impact Statement (EIS) and Natura Impact Statement (NIS) have been prepared in respect of the proposed development.

The proposed development relates to development which comprises an activity requiring an Industrial Emissions Licence.

The proposed development is not an establishment for the purposes of the Major Accidents Directive or the Major Accident Regulations. However, the proposed development is in the vicinity of an existing establishment or establishments and may be relevant to the risk or consequences of a major accident. The application for permission in respect of the proposed development is one to which Article 215 of the Planning and Development Regulations 2001, as amended, refers.

## **5. Waste and Planning Policy Considerations**

Chapter 2 of the EIS sets out in detail the key policy provisions against which the proposed development has been formulated. The key aspects of these policies are set out below.

### **5.1 European Union (EU) Law and Policy**

The context for the development of Irish waste and energy policy is set by overarching EU policy as well as EU legal instruments that implement this policy.

#### **5.1.1 7<sup>th</sup> Environmental Action Programme 2013**

The 7<sup>th</sup> *Environmental Action Programme* ("7<sup>th</sup> EAP") (European Commission 2014) was formally adopted by the European Parliament and the Council of the European Union in November 2013 and covers the period up to 2020.

The programme for action to 2020 aims to (amongst other things):

- Turn waste into a resource based on strict application of the waste hierarchy.
- Limit energy recovery to non-recyclable materials.
- Phase out landfilling of recyclable or recoverable waste.
- Ensure high quality recycling where the use of recycled material does not lead to overall adverse environmental or human health impacts.
- Manage hazardous waste so as to minimise significant adverse effects on human health and the environment.
- Remove barriers facing recycling activities in the European Union internal market and review existing prevention, re-use, recycling, recovery and landfill diversion targets so as to move towards a lifecycle-driven 'circular' economy, with a cascading use of resources and residual waste that is close to zero.

The European Commission's framework which aims to create conditions for the development of a circular economy as described in the Circular Economy Roadmap (European Commission 2015a) and Communication "Closing the loop – An EU action plan for the Circular Economy" (European Commission 2015b) was published on the 2<sup>nd</sup> December 2015.

In a circular economy the value of the materials and energy used in products in the value chain is retained for as long as possible while waste and resource use are minimised. This provides consumers with more durable and innovative products that save money and increase quality of life.

The circular economy requires action at all stages of the life cycle of products: from the extraction of raw materials, through material and product design, production, distribution and consumption of goods, repair, remanufacturing and re-use schemes, to waste management and recycling. All these stages are linked and improvements in terms of resource and energy efficiency can be made at all stages. Ireland's Regional Waste Plans (see below) already apply the principles of the circular economy focusing in particular on transitioning from a waste management economy to a green circular economy and increasing the value, recovery, and recirculation of resources. This is described further below.

#### **5.1.2 Waste Framework Directive**

The Waste Framework Directive (2008/98/EC) ("the WFD") sets the legal framework for waste management in the European Union, setting out the basic concepts and definitions related to waste management. It was introduced in 2008. The WFD, which replaces the former Waste Framework Directive (75/439/EEC, & 2006/12/EC) and Hazardous Waste Directive (91/689/EEC), places a strong emphasis on optimising resource efficiency, prevention, reuse and the recovery of mixed residual wastes.

Specifically, the WFD imposes on Member States a number of obligations regarding waste management, including:



- The application of the waste hierarchy as a priority in waste prevention and waste management legislation and policy.
- To ensure that waste is recovered (including separate collection to facilitate recovery where technically, environmentally and economically practicable) or, where it is not recovered, to ensure that waste is disposed of without causing risks to human health and the environment.
- To establish an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste - aiming for EU self-sufficiency and for member states individually to move towards self-sufficiency.

The WFD establishes the hierarchy of waste management, with the preferred waste management option at the top of the hierarchy and the least preferred option at the bottom. This waste hierarchy has been transposed into Irish law (Section 21A of the Waste Management Act 1996 (as inserted by article 7 of the European Communities (Waste Directive) Regulations 2011 [S.I. No. 126 of 2011]).

The waste hierarchy shows that waste prevention is the most preferred option, with disposal being the least desirable option. Re-use and recovery fall in the middle of the waste hierarchy.

Annex II of the WFD sets out a non-exhaustive list of recovery operations, which includes material recovery (i.e. recycling), energy recovery (i.e. use principally as a fuel or other means to generate energy) and biological recovery (e.g. composting). This Annex also sets out an energy efficiency criteria for energy recovery activities such as waste-to-energy known as the “R1 formula”. Any new facilities meeting or exceeding an efficiency of 0.65 according to the R1 formula can be classified as recovery activities (R1) according to the waste hierarchy.<sup>1</sup>

At the bottom of the hierarchy is disposal, which in Ireland generally involves waste being sent to landfill. Landfilling results in resources being disposed of without a possibility of recovery, with risks such as emissions from methane generated from decomposing biodegradable waste, leachate and groundwater contamination.

### 5.1.3 Other EU Initiatives

The Europe 2020 strategy (European Commission 2010), an EU document which aims to ensure smart, sustainable and inclusive growth, puts forward seven flagship initiatives to set the EU on the path to this transformation, including the “resource efficient Europe” roadmap.

The Roadmap for a Resource Efficient Europe (European Commission 2011) sets out key milestones which include:

*“By 2020, waste is managed as a resource. Waste generated per capita is in absolute decline. Recycling and re-use of waste are economically attractive options for public and private actors due to widespread separate collection and the development of functional markets for secondary raw materials. More materials, including materials having a significant impact on the environment and critical raw materials, are recycled. Waste legislation is fully implemented. Illegal shipments of waste have been eradicated. Energy recovery is limited to non-recyclable materials, landfilling is virtually eliminated and high quality recycling is ensured.”*

## 5.2 National Waste Policy

### 5.2.1 A Resource Opportunity – Waste Management Policy in Ireland

The Department of Environment, Community and Local Government published *A Resource Opportunity. Waste Management Policy in Ireland* in July, 2012. In the context of the EU WFD, this national policy document sets out the measures through which Ireland will make the further progress necessary to become a recycling society, with a clear focus on resource efficiency and the virtual elimination of landfilling of municipal waste.

There are a number of guiding principles<sup>2</sup> in this policy document as set out below:

<sup>1</sup> This R1 classification covers all types of waste acceptable at the MSWI plant as defined in IPPC and WID

<sup>2</sup> Refer to Section 1 – Introduction of A Resource Opportunity. Waste Management Policy in Ireland’ (2012).

- *“Firstly, we must place prevention and minimisation at the forefront of waste policy by ensuring that we minimise the generation of waste through better design, through smart green purchasing and through a keener awareness of locally produced goods which boost jobs and the economy and can reduce impacts associated with transportation.*
- *Secondly, when waste is generated we must extract the maximum value from it by ensuring that it is reused, recycled or recovered, including by the appropriate treatment of mixed municipal waste or residual waste collected in our black bins.<sup>3</sup>*
- *Thirdly, disposal of municipal waste to landfill must be a last resort – in fact, we must now work to effectively eliminate our use of landfill for this purpose within the next decade, in line with the 2011 EU roadmap to a resource efficient Europe” (see Section 2.2.1.3).*

The policy notes<sup>4</sup> that the waste projections set out in the Environmental Protection Agency’s National Waste Report 2010, which are based on the ESRI’s sustainable development model for Ireland, anticipate that municipal waste arisings will increase by 825,000 tonnes (to 3.7m tonnes) within the next 15 years.<sup>5</sup> The report also states:

*“While there may be sufficient management capacity in the immediate future, the predicted growth of municipal waste within the coming decade will necessitate investment in waste management infrastructure.”*

The policy<sup>6</sup> required the preparation of a regional waste management plan for each of the three waste regions, in recognition of the nature of the Irish waste market and the movement of waste across existing boundaries to avail of waste management infrastructure. In keeping with the proximity and self-sufficiency principles, a key objective of waste management plans is to ensure a sufficiency of waste management infrastructure within the State to manage municipal waste.

It is stated in the 2012 policy that it is important to harness the potential of waste to contribute in a significant manner to displacing the use of finite fossil fuel resources.<sup>7</sup>

In considering measures for the encouragement of recovery, the policy advocates that a balance must be struck between the development of essential infrastructure and the importance of ensuring that material, which could be reused or recycled, is not drawn down the hierarchy and that waste generation is not encouraged in order to provide feedstock for recovery processes. In this context, it is stated that the technical guidance document published by the EPA on *Municipal Solid Waste: Pre-treatment and Residuals Management* (EPA 2009) is of particular importance, given its provision that residual municipal waste delivered to a waste-to-energy facility must first have been collected through a source separated system and mechanical treatment for the extraction of metals and other marketable recyclables must be applied to the bottom ashes that are generated following combustion.

Section 9.2 sets out key policy measures and actions in relation to recovery, as follows:

*“Recovery*

- *the reform of the waste collection permitting system will provide the opportunity for the application of such conditions as are necessary to give effect to the waste hierarchy, reflecting the legal status of the hierarchy and the range of recovery options emerging, to promote self-sufficiency and to drive a move away from disposal and towards recovery;*
- *conditions imposed on each waste collection permit to prohibit waste which has been source segregated by the waste producer for the purposes of recycling, from being sent for recovery or for disposal, will be rigorously enforced;*
- *the careful design and use of incentives and economic instruments will be a key focus for ensuring that waste is not drawn down the waste hierarchy;*

<sup>3</sup> See definition of recovery for what the strategy considers to be “appropriate treatment of mixed municipal waste”

<sup>4</sup> Refer to Section 3 – Planning for the Future of A Resource Opportunity. *Waste Management Policy in Ireland*’ (2012).

<sup>5</sup> Note that this ESRI model was reviewed and updated annually in EPA national waste reports until 2012, but is no longer funded (so it is unclear whether it will continue to be used as a forecasting tool). The Regional Waste Plans adopted a waste forecasting approach that takes into account the ESRI modelling as well as other indicators, as outlined in Chapter 15 of each of the plans.

<sup>6</sup> Refer to Section 3 – Planning for the Future of A Resource Opportunity. *Waste Management Policy in Ireland*’ (2012).

<sup>7</sup> Refer to Section 9 – Recovery of A Resource Opportunity. *Waste Management Policy in Ireland*’ (2012).

- *government will ensure that the relevant Departments and agencies pursue a coordinated approach in support of the development of recovery infrastructure;*
- *Ireland requires an adequate network of quality waste treatment facilities. A review of recovery infrastructure will be completed by 31 December 2012 and the EPA will advise on requirements in this regard. In particular, this will examine capacity for managing municipal waste in conformity with the principles of proximity and self-sufficiency."*

The EPA review of recovery infrastructure, in the *National Municipal Waste Recovery Capacity* report (EPA 2014), recommended that more data be acquired on facilities handling municipal waste due to confusion over waste acceptance categories, availability or capacity of permitted sites, and harmonisation of processing capacities in regulatory classes. The report was followed up with a detailed assessment of facilities handling municipal waste by the Regional Waste Authorities in preparation of the Regional Waste Plans, in collaboration with the EPA. This led to the recommendations referred to below in the Regional Plans.

### **5.2.2 Ireland's National Hazardous Waste Management Plan 2014-2020**

The National Hazardous Waste Management Plan 2014-2020 ("NHWMP 2014-2020") (EPA 2014) is the third national hazardous waste plan. It updates and revises the previous plan covering the period 2008–2012 (Proposed Revised National Hazardous Waste Management Plan 2013).

The NHWMP 2014-2020 also sets out the priorities for 2014-2020, taking into account the progress made and the waste policy and legislative changes that have occurred since the previous plan. One area where insufficient progress was made on the previous plan was in achieving self-sufficiency (as described in previous plan), with levels of exported waste staying steady while the proportion of hazardous waste being treated in Ireland is slowly declining.

The NHWMP 2014–2020 plan sets out a number of objectives including:

- (i) To prevent and reduce the generation of hazardous waste by industry and society generally.
- (ii) To maximise the collection of hazardous waste with a view to reducing the environmental and health impacts of any unregulated waste.
- (iii) To strive for increased self-sufficiency in the management of hazardous waste and to minimise hazardous waste export.
- (iv) To minimise the environmental, health, social and economic impacts of hazardous waste generation and management.

The objective of moving towards increased self-sufficiency in the management of hazardous waste continues to be recommended, where it is strategically / environmentally advisable, and technically and economically feasible.

This recommendation is in line with several objectives (Refer to Section 6.2 of the NHWMP). It recognises the proximity principle established in the WFD and it seeks to maximise the re-use and recovery potential of, for example, materials, precious metal and secondary fuels, through provision of a range of local treatment options where practical.

The principles of self-sufficiency and proximity are described in Article 16 of the WFD, which requires that

- *1. Member States shall take appropriate measures, in cooperation with other Member States where this is necessary or advisable, to establish an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste collected from private households including where such collection also covers such waste from other producers, taking into account best available techniques.*
- *2. The network shall be designed to enable the Community as a whole to become self-sufficient in waste disposal as well as in the recovery of waste referred to in paragraph 1, and to enable Member States to move towards that aim individually, taking into account geographical circumstances or the need for specialised installations for certain types of waste.*

- 3. *The network shall enable waste to be disposed of or waste referred to in paragraph 1 to be recovered in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health.*

The NHWMP 2014-2020 finds that, if Ireland is to become self-sufficient, suitable hazardous waste treatment options would be required. This is further explained in Section 6.2 of the NHWMP:

- *There are ancillary environmental benefits deriving from self-sufficiency. Firstly international transport of hazardous waste is minimised eliminating associated risks, and avoiding transport related greenhouse gas emissions. Secondly, it increases availability of recovery and disposal outlets for hazardous waste if problems arise in the export agreements for hazardous treatment in other Member States. However, it is noted that hazardous waste destined for recovery is subject to an open and competitive waste market in the EU.*

Greater self-sufficiency would therefore maximise the treatment and disposal of hazardous waste in Ireland, where strategically advisable, and economically and technically feasible, with policy, environmental and availability-of-outlet benefits.

Section 6.4 of the NHWMP 2014-2020 notes there is a quantity of hazardous waste that is currently exported for incineration for which incineration will remain the most likely management route. It must therefore be concluded that, in combination with the blending of waste solvent for use in cement kilns, and in the absence of alternative techniques that are capable of treating a wide range of diverse waste streams, incineration in Ireland will be needed for some waste streams in order for Ireland to move towards self-sufficiency in the treatment of hazardous waste.

Taking this into consideration, three overarching strategic needs have been identified for action if additional hazardous waste is to be treated in Ireland and exports of hazardous waste are to be reduced (Refer to Section 6.2 of the NHWMP), including:

- Expansion of recovery and treatment capacity in Ireland for waste that does not need thermal treatment or landfill – generally referred to as physico-chemical treatment;
- Addressing the deficit in thermal treatment capacity in Ireland (i.e., use as fuel, co-incineration or incineration) for Irish wastes currently being exported (e.g., solvents), and
- Securing of long-term disposal arrangements for hazardous waste streams not suitable for thermal treatment or recovery.

Section 6.2 of the NHWMP 2014-2020 states that consideration should be given to co-location of hazardous waste treatment at existing waste facilities or brownfield sites for the purposes of sustainability and land-use planning.

Two significant public policy constraints were taken into account in preparing the revised Plan (Refer to Section 1.1 of the NHWMP).

First, current government policy indicates that large-scale public investment in hazardous waste infrastructure will not be made. The hazardous waste industry in Ireland is entirely owned and operated by the private sector. No public authorities are involved in the commercial collection of hazardous waste, the provision of storage facilities or the treatment of hazardous waste.

The only exception is the provision of civic amenity sites by local authorities for the deposit of small quantities of household hazardous waste.

Second, in this context, options for private sector investment are presented solely as options and the NHWMP 2014-2020 does not seek to carry out a detailed evaluation of the actual economic feasibility of any such potential investments. Any proposals for hazardous waste management infrastructure would, however, be expected to have regard to the NHWMP 2014-2020 and describe how its overarching objectives would be met.

### 5.3 Regional Waste Policy

#### 5.3.1 Southern Region Waste Management Plan 2015-2021

The Southern Region Waste Management Plan 2015-2021 [SRWMP] (2015) is one of three regional waste plans made in line with statutory obligations and incorporating certain of the requirements of the WFD. The Southern Region covers the administrative areas of the following local authorities: Carlow County Council, Clare County Council, Cork City Council, Cork County Council, Kerry County Council, Kilkenny County Council, Limerick City and County Council, Tipperary County Council, Waterford City and County Council, and Wexford County Council. The region has a population of 1,541,439 (SRWMP 2015).

The approach of the regional waste plans is to put into place coherent policy objectives and actions which align with European and national policy and support Ireland's move to an economy defined by higher resource efficiency and productivity.

The strategic vision of the SRWMP is to view waste streams as valuable material resources, leading to a healthier environment and sustainable commercial opportunities. The SRWMP seeks to encourage a transition from a waste management economy to a green circular economy by increasing the value recovery and recirculation of resources.

In line with this vision, the SRWMP sets out targets to 2030. These include:

- Absolute decoupling of household waste from economic growth and disposable income
- Preparing for reuse and recycling rate of 60-70% of municipal waste by the end of 2030
- Reduce and where possible eliminate the use of landfilling of all major waste streams including municipal, industrial and construction and demolition wastes in favour of the recovery of residual wastes.

The preferred treatment of non-recyclable residual waste is recovery.

The waste management hierarchy is a core principle of the waste strategy for the region. Policy A1 of the SRWMP sets out the requirement to take measures to ensure the best overall environmental outcome by applying the waste hierarchy to the management of waste streams.

As noted in the SRWMP, the southern region has made significant progress during the lifetime of the previous plans but challenges remain. These include, in relation to infrastructure, a gap in the end-of-chain residual waste treatment capacity, which has resulted in an increase in exports of waste. The amount of residual municipal waste exported has increased each year since 2011, partly in response to landfill closures and a high landfill levy (€75/t since 2013), and partly in response to spare capacity becoming available for residual MSW in European countries, which has driven down gate fees in those countries.

According to the SRWMP, exports provide short term gains in meeting landfill diversion targets and providing competitive gate fees. However, a continued reliance on exports could:

- Pose a potential significant risk in terms of securing long-term and cost effective outlets, exposing market operators to potential market shocks and increasing treatment prices.
- Impact on the national policy ambition to become self-sufficient in treating residual waste, reducing the incentive to develop local waste treatment infrastructure.
- Result in a direct loss in revenue to the Irish economy, through a loss of potential gate fee revenue and energy resources.
- Result in the loss of 189,000MWh energy potential in the waste, which could have been harnessed in Ireland to offset circa 38,745 tonnes greenhouse gas (GHG) emissions from energy production in the State from conventional natural gas combustion.
- Result in higher GHG transport emissions per tonne of waste (potentially 3.3 times higher than the self-sufficiency option, according to the Environmental Report on the Southern Region Waste Management Plan).



Policy A4 of the SRWMP aims to address this by setting the objective of improving regional and national self-sufficiency of waste management infrastructure for the reprocessing and recovery of particular waste streams, such as mixed municipal waste, in accordance with the proximity principle.

The SRWMP acknowledges that the long term alternative to the export of residual waste is to develop indigenous thermal recovery infrastructure to replace landfill, and for the State to become self-sufficient where possible.

Chapter 10 of the SRWMP describes the current management of municipal solid waste and biodegradable municipal waste in the region at the time of writing. This finds that approximately 59% of municipal waste managed within the region was recovered in 2012. There has been a sharp reduction in waste accepted at landfills from 2010 to 2013, from just over 300,000 tonnes in 2010 to less than 200,000 tonnes in 2013 (which is expected to further reduce to less than 100,000 tonnes in 2014).

According to the EPA's *National Waste Reports*, the significant increase in recovery of municipal waste in recent years was attributable to:

- Substantial increase in the landfill levy, which is currently €75/tonne, moving waste to recovery operations
- The decreasing number of active landfills accepting waste within the country
- The opening of Ireland's first municipal waste incinerator with energy recovery
- The increased production of refuse derived fuels for use both within Ireland and abroad
- A significant increase in the export of unprocessed municipal waste for incineration abroad

Thus the increase in recovery has largely been achieved through an increase in thermal recovery both within Ireland and abroad.

Section 16 of the SRWMP assesses the current availability of waste treatment capacity and future capacity requirements. The SRWMP states that the need for future treatment capacity requires careful consideration and must take into account predicted waste growth, growing recycling rates, future targets, the continued move away from landfill and the conversion of pending capacity (currently 792,875t<sup>8</sup>) into active treatment.

The development of future thermal recovery facilities will be viewed as national facilities addressing the needs of the State and will not be defined by regional markets alone.

With regards to future treatment capacity requirements, the SRWMP recommends the following:

- Objective E15a of the plan supports the development of up to 300,000 tonnes of additional thermal recovery capacity for the treatment of non-hazardous wastes nationally to ensure there is adequate and competitive treatment in the market and the State's self-sufficiency requirements for the recovery of municipal waste are met. This figure is proposed in addition to the active and pending capacity totals.
- Objective E15b of the plan supports the need for thermal recovery capacity to be developed specifically for the on-site treatment of industrial process wastes and where justifiable, the treatment of such wastes at merchant thermal recovery facilities
- Objective E16 supports the development of up to 50,000 tonnes of additional thermal recovery capacity for the treatment of hazardous wastes nationally to ensure that there is adequate active and competitive treatment in the market to facilitate self-sufficiency needs where it is technically, economically and environmentally feasible.

All proposals for waste management development must meet the Environmental Protection Criteria set out in section 16.5 of the plan.

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<sup>8</sup> Includes the Dublin waste-to-energy facility, the permitted pyrolysis facility in Tullamore and the planned increase in cement kiln capacity – see Table 16-7 of the Plan.

Importantly, the SRWMP identifies the importance of energy recovery and notes that there needs to be greater recognition in energy policy of the contribution waste facilities are making and will continue to make to Ireland's renewable energy sector and its achievement of mandatory targets. European and national energy policy is discussed in further detail below.

Finally, the SRWMP also confirms that the development of waste infrastructure will be driven by the private sector. The local authorities in the Southern Region do not foresee any capital investments and furthermore, the plan states:

*"Private sector investment is anticipated in the development of other recovery facilities to treat residual municipal wastes and residual hazardous wastes."*

In summary, the SRWMP is underpinned by the principles of self-sufficiency and proximity. The region will promote sustainable waste management in keeping with the waste hierarchy and the move towards a circular economy and greater self-sufficiency. As noted above, there are no active thermal recovery activities for the treatment of municipal waste in the Southern Region. It is noted that the spatial distribution of facilities nationally is potentially unbalanced, with all active and pending facilities located in the Eastern-Midlands Region. There is a need to consider the spatial distribution of thermal recovery capacity in the State when considering the authorisation of future facilities.

#### **5.4 Waste Policy Considerations**

The proposed Ringaskiddy Resource Recovery Centre will support EU, national and regional waste policy objectives by diverting non-recyclable resources from landfill, and recovering valuable energy from them. Thermal recovery also supports high quality recycling by treating polluted and complex waste, thereby keeping harmful substances out of the circular economy. Finally, thermal recovery facilities can contribute to recycling through extraction of ferrous and non-ferrous metals.

The proposed Ringaskiddy Resource Recovery Centre has been designed to meet the R1 efficiency criteria and, will therefore, be classified as a recovery operation and as such, will contribute to the attainment of the policy objective to move waste treatment away from landfill disposal to a higher tier of the waste hierarchy. This aligns with the fulfilment of Ireland's obligations under the Waste Framework Directive. Indeed, Indaver's existing waste to energy facility in Meath is already classified as an R1 facility.

The proposed Ringaskiddy Resource Recovery Centre will also help to extract the maximum value from residual waste, displacing the use of finite fossil fuel resources. The capacity will contribute toward self-sufficiency of residual waste treatment in the State without impacting on material which could be reused or recycled. This will be achieved by aligning with the capacity requirement identified in regional waste plans as well as complying with the EPA pre-treatment guidance for the mechanical treatment of bottom ash.

In relation to hazardous waste, as per the National Hazardous Waste Management Plan 2014-2020 [NHWMP], the proposed development will help to address the deficit in thermal treatment capacity in Ireland for hazardous waste, making a significant contribution toward hazardous waste self-sufficiency (reducing exports by up to 24,000 tonnes per annum) and minimising hazardous waste export. In addition, the NHWMP provides that consideration should be given to co-location of hazardous waste treatment at existing waste facilities or brownfield sites for the purposes of sustainability and land-use planning. The proposed development responds to this identified policy objective for greater self-sufficiency, and proposes the co-location of municipal and suitable hazardous waste on the one site.

Consistent with national waste policy, the Regional Waste Management Plans seek to apply the waste hierarchy to the management of wastes. Policy A4 in each of the Regional Plans seeks to improve national and regional self-sufficiency of waste management infrastructure for the reprocessing and recovery of particular waste streams, such as mixed municipal waste. The strategic approach of the RWMPs (Section 5.2) is to place a stronger emphasis not only on waste prevention, but also, critically, material reuse activities. In this context, the focus for the RWMPs is to deliver balanced and sustainable infrastructure for the treatment of wastes in line with this strategic vision and waste hierarchy. It is further stated that the proximity principle will be applied in the context of the scale of the proposed facilities.

Critically, in relation to thermal recovery facilities, the Southern Region Waste Management Plan (SRWMP) 2015-2021, which was adopted on 14<sup>th</sup> May 2015, states that the spatial distribution of thermal recovery facilities nationally is potentially unbalanced, with all active and pending facilities located in one region, that region being the East-Midlands Region. Despite the strong road network linking regional urban centres to the Dublin area, the SRWMP endorses the need to consider the spatial distribution of thermal recovery capacity in the State when authorising future facilities. There are no active thermal recovery activities for the treatment of municipal waste in the Southern Region.

The proposed Ringaskiddy Resource Recovery Centre will provide national thermal recovery capacity for the treatment of non-hazardous wastes in accordance with policy Objective E15a of the Southern Region Waste Management Plan. It will also provide national thermal recovery capacity for suitable hazardous wastes in accordance with policy Objective E16 of the Southern Region Waste Management Plan. Significantly, in terms of spatial planning, the proposed development will also address the current regional imbalance in the provision of waste infrastructure and the lack of thermal recovery capacity in the Southern Region.

The proposed development is also consistent with policy objective RTS-08 of the South-West Regional Planning Guidelines 2010-2022, as it will encourage the delivery of an effective and efficient waste management service in line with the Waste Management Acts.

At the local level, the 2012 Evaluation of the Waste Management Plan for Cork County (2004-2009) stated that consideration must now be given to the provision of waste-to-energy plants in County Cork as part of an integrated approach to waste management in line with EU and national policy.

The Cork County Development Plan 2014-2020 states that the Council's Waste Management Plan makes provision for waste collection facilities, waste transfer stations and other facilities and the Local Area Plans will continue to facilitate the development of such waste management facilities, where appropriate. With the exception of "bring" sites, these waste management facilities raise different levels of environmental and social concerns and potential impacts and require licensing from the Environmental Protection Agency (EPA). Accordingly, it is important to ensure that waste management facilities are located where these impacts are minimised as much as possible.

## **5.5 Energy and Climate Change Policies**

The proposed development will generate 21MW of electricity of which 18.5MW will be exported to the national grid. A portion of this electricity<sup>9</sup> will be generated from the biodegradable fraction of industrial and municipal waste and is therefore considered to be energy from renewable sources.

For these reasons, the proposed facility aligns with and contributes towards the attainment of European and national energy policy objectives, as set out below.

### **5.5.1 European Energy Policy**

Europe's energy policies are driven by three main objectives including:<sup>10</sup>

- Achieving security of energy supply to ensure the reliable provision of energy whenever and wherever needed.
- Achieving competitiveness of energy supply that provides affordable prices for homes, businesses, and industries.
- Achieving sustainable energy supply through the lowering of greenhouse gas emissions, pollution, and fossil fuel dependence.

These objectives are driven through an energy and climate strategy framework that covers three distinct timeframes including:

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<sup>9</sup> Based on experience at the Meath waste to energy facility, the fraction of electricity generated from renewable sources is estimated to be approximately 50%.

<sup>10</sup> Refer to overview of EC energy strategy at <https://ec.europa.eu/energy/en/topics/energy-strategy>

- The 2020 Climate and Energy Package (European Commission 2010, Energy 2020: A strategy for competitive, sustainable and secure energy) which sets out mandatory targets for member states to achieve an overall reduction in greenhouse gas emissions by 20%, an increase in the share of renewable energy to at least 20% of consumption, and energy savings of 20% or more (the “20:20:20” targets).
- 2030 framework for climate and energy policies (European Commission 2014, A policy framework for climate and energy in the period from 2020 to 2030) which aims to make the European Union's economy and energy system more competitive, secure and sustainable and sets targets for at least 27% for renewable energy and energy savings by 2030 and at least 40% reduction in greenhouse gas emissions compared to 1990.
- The “Energy Roadmap 2050” for moving to a low-carbon economy in 2050 (European Commission (2011), Energy Roadmap 2050) which looks beyond short-term objectives and sets out a cost-effective pathway for achieving emissions reductions of 80% below 1990 levels.

In order to meet the ambition of the 2020 Climate and Energy Package, a suite of Directives were enacted including the Renewable Energy Directive ((2009/28/EC) and the Energy Efficiency Directive (Directive 2012/27/EU). The Renewable Energy Directive (2009/28/EC) requires the EU to fulfil at least 20% of its total energy needs with renewables by 2020 through mandatory Member State renewable targets. The Energy Efficiency Directive is described in further detail below.

In February 2015, the European Commission published an Energy Union framework package (European Commission 2015c) which aimed to build on the 2030 and 2050 frameworks and integrate a series of policy areas into one cohesive strategy with a cohesive set of measures.

The package specifically notes in relation to thermal recovery that:

*“The Commission will further establish synergies between energy efficiency policies, resource efficiency policies and the circular economy. This will include exploiting the potential of “waste to energy.”*

In this regard, the Commission will publish a Communication in 2016 regarding waste-to-energy to enhance synergies between the circular economy, resource efficiency, and waste-to-energy (see Annex 1 of the framework package). This will also address the efficiency of waste-to-energy processes, consider emerging technologies in waste-to-energy, assess the potential of waste-derived fuels, harnessing existing capacities in the EU and clarifying the interpretation of the waste hierarchy. The development of a dedicated communication regarding waste-to-energy under EU energy policy framework highlights the importance of waste-to-energy in terms of sustainable energy production and resource management.

The proposed Ringaskiddy Resource Recovery Centre will generate renewable electricity from the biomass contained in residual waste. This will contribute towards the delivery of renewable energy targets. Furthermore, it will contribute towards objectives of energy and resource efficiency and the circular economy as highlighted in the Energy Union package.

### **5.5.2 Renewable Energy Directive**

The Renewable Energy Directive (2009/28/EC) seeks to promote the use of energy from renewable sources. The Directive provides the following definitions in Article 2:

*“‘energy from renewable sources’ means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases;*  
*‘biomass’ means the biodegradable fraction of products, waste and residues from biological origin from agriculture (including vegetal and animal substances), forestry and related industries including fisheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste;”*

Therefore the energy generated from the biodegradable fraction of industrial and municipal waste is considered to be energy from renewable sources.

To encourage the development of renewable energy, the Directive requires the EU to fulfil at least 20% of its total energy needs with renewables by 2020 through mandatory Member State renewable targets. The target set for Ireland's share of energy from renewable sources in gross final consumption is 16% by 2020 as stated in Annex 1 of the Directive. It also requires that electricity from renewable sources is given priority access or guaranteed access to the grid-system.

Finally, to ensure progress towards the mandatory targets the Directive also requires that Member States prepare and submit Renewable Energy Action Plans that set out Member States' national targets for the share of energy from renewable sources consumed in transport, electricity and heating and cooling in 2020.

### **5.5.3 National Energy Policy**

The Department of Communications, Energy and Natural Resources published an energy policy paper Delivering a Sustainable Energy Future for Ireland – The Energy Policy Framework 2007-2020 which sets out the central objectives of the Government's energy policy. This policy is committed to delivering a significant growth in renewable energy as a contribution to fuel diversity in power generation with a 2020 target of 33% of electricity consumption.

To ensure the security of supply, the Energy Policy Framework commits to, amongst other things, enhancing the diversity of fuels for power generation. This will be partly achieved by delivering significant growth in renewable energy with a particular focus on encouraging biomass in power generation. The increased penetration of renewable energy will at the same time contribute to the environmental sustainability of energy supply.

The policy specifically commits to providing optimised "waste-to-energy" solutions compatible with Ireland's prevention, reuse and recycling goals.

Subsequent to this policy statement, Directive 2009/28/EC on renewable energy was published which required each Member State to adopt a national renewable energy action plan (NREAP) as outlined above. In Ireland's NREAP (Department of Communications, Energy and Natural Resources (2010)), the Government revisited the relative contribution from each sector (heating, transport, electricity) towards Ireland's mandatory target of 16% share of energy from renewable sources in gross final consumption by 2020. The relative contribution from renewable electricity was increased from 33% (as stated in the Energy Policy Framework 2007-2020) to 40% of electricity consumed.

The new energy policy for Ireland, 'Ireland's Transition to a Low Carbon Energy Future 2015-2030', was published on 16<sup>th</sup> December, 2015. This White Paper is a complete energy policy update, which sets out a framework to guide policy up to 2030. The vision of a low carbon energy system means that greenhouse gas emissions from the energy sector will be reduced by between 80% and 95%, compared to 1990 levels, by 2050, and will fall to zero or below by 2100.

It is stated that a low carbon future will include:

- becoming more energy efficient
- generating our electricity from renewable sources of which we have a plentiful indigenous supply
- moving to lower emissions fuels (e.g. moving from peat and coal to gas), and ultimately away from fossil fuels altogether
- increasing our use of electricity and bioenergy to heat our homes and fuel our transport
- supporting the wide scale deployment of renewable heat in the business, public and residential sectors
- adopting new technologies as they emerge.

The policy states that non-renewables currently account for over 90% of energy consumption in Ireland, and that this will fall to 84% in 2020 if binding EU targets for renewables are achieved. In order to reduce GHG emissions by 80-95% by 2050, fossil fuels would account for 19-30% of final energy demand in Ireland. This means that non-renewable energy sources will make a significant – though progressively smaller – contribution to Ireland's energy mix over the course of the energy transition. In the short to medium-term, the mix of non-renewables will shift



away from more carbon-intensive fuels, like peat and coal, to lower-carbon fuels like natural gas. In the longer-term, fossil fuels will be largely replaced by renewable energy sources.

Renewable energy and improved energy efficiency will play vital roles in reducing emissions. Decisions about the development and deployment of new technologies will inform the renewable energy mix and impact on the role of citizens as energy consumers. Policy commitments include the deployment of heat from renewable sources through the Renewable Energy Feed-In Tariff (REFIT) 3 scheme and develop new supports to meet 2030 renewable heat targets, and a policy framework to encourage the development of district heating.

Section 136 (Renewable Electricity RES-E) of the policy document states that:

*"Waste Management Policy in Ireland recognises the need to develop efficient ways to extract as much value as possible from waste in accordance with the requirements of the waste hierarchy and the opportunity for waste to be used as an indigenous energy resource [34]. In this regard, three new regional waste management plans for the period 2015-2021 support the development of additional thermal recovery and biological treatment capacity within the State."*

In addition to overarching energy policy, Ireland's Bioenergy Action Plan (2007) emphasises the importance of energy recovery over the landfill of residues, and refers to the intent of the National Strategy on Biodegradable Waste to:

*"maximise the recovery of useful materials and energy from residual waste, and accordingly suggests thermal treatment with energy recovery as the preferred option followed by mechanical biological treatment with energy recovery and with mechanical biological treatment of fully stabilised residue to landfill as a last resort."*

Moreover, the Action Plan introduced financial support for the renewable portion of energy from waste-to-energy plants via the Renewable Energy Feed-In Tariff (REFIT) scheme, to assist the development of waste-to-energy projects.

The draft replacement Bioenergy Action Plan (2014) further emphasises that bioenergy – including from waste - will be an essential element in contributing to Ireland's future energy needs, and has the potential to provide significant economic and environmental benefits. It recognises that developing the bioenergy sector can also help in achieving wider policy objectives in areas such as waste recovery.

#### **5.5.4 Climate Change Policy**

The National Climate Change Strategy 2007–2012 detailed the proposed measures to be taken by Ireland to limit the emission of greenhouse gases such as carbon dioxide, methane, nitrous oxides and certain fluorinated gases from all sectors of the economy to meet its 2008-2012 commitment. It also demonstrated how these measures position the nation for the post-2012 period, identifying the areas in which further measures are being researched and developed to enable the eventual 2020 commitment to be met.

The Strategy notes that emissions from the waste sector consist mainly of methane from landfills. Emissions reductions in the sector are to be achieved primarily through the diversion of biodegradable waste from landfill. The preferred options for the residual treatment of biodegradable waste are listed as thermal treatment with energy recovery or mechanical-biological treatment.

The strategy states that, in accordance with the methodologies developed by the Intergovernmental Panel on Climate Change, the carbon dioxide emissions resulting from the combustion of biodegradable waste are considered carbon neutral and are not counted for the purposes of Kyoto obligations. In addition, generation of heat and electricity from waste in thermal treatment plants reduces the need to produce this energy from fossil fuels and will therefore displace carbon dioxide emissions from these sources.

The 2007-2012 strategy has not been replaced but a climate policy review published in 2011 found that an early and effective transition to a low-carbon, climate resilient future provides opportunities for Ireland to demonstrate its competitiveness in the emerging green economy in the EU.

Related publications include:

- The Climate Action and Low-Carbon Development Bill 2015, which requires the adoption and implementation of plans to enable the State to pursue and achieve transition to a low-carbon, climate-resilient and environmentally sustainable economy in the period up to and including the year 2050.
- The UN Intergovernmental Panel on Climate Change report in 2014 (Climate Change 2014: Impacts, Adaptation, and Vulnerability) which clarified that electricity generated from gas and coal must be replaced with renewable electricity generation within 35 years.
- The 2030 framework for climate and energy policies (referred to above in section 6.3), agreed in principle at the European Council meeting in October 2014, which sought a reduction in greenhouse gas emissions of 40%; an increase in EU energy from renewable sources to 27%; and an indicative target of 27% for energy efficiency.

These policies and reports all recognise the very significant contribution that renewables will make in the period to 2030, which is the next critical milestone on the EU's transition to a low-carbon European economy by 2050.

## **5.6 Planning Policy**

### **5.6.1 National Development Plan 2007-2013**

The National Development Plan (NDP) was published by the Government in January 2007 and sets out a programme of integrated investments that will underpin Ireland's ability to develop in a manner that is economically, socially and environmentally sustainable. It follows on from the previous National Development Plan 2000-2006, however it has a greater focus on the necessary infrastructure which will be important in attracting investment and ensuring progress.

The NDP seeks to reach new economic and social goals, with emphasis placed on the protection of the environment.

The Plan acknowledges that enhancing the availability of a range of high quality waste management solutions is important for national competitiveness and balanced regional development, particularly for business in terms of cost and choice of investment location.

One of the key outputs under the NDP's priorities will be to significantly improve the capacity and environmental sustainability of waste infrastructure. Under the Waste Management Sub-Programme as set out in Chapter 7:

- €753 million may be spent to address problems associated with landfills, and
- Regional waste management plans emphasise the development of thermal treatment plants through private investment to reduce landfill usage

The NDP states that, in relation to 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.

### **5.6.2 National Spatial Strategy (NSS) 2002-2020**

The National Spatial Strategy (NSS), published by the Government in December 2002, provides a framework to achieve balanced regional development. It states that the efficient movement of people and goods, coupled with effective energy and communications networks, waste management facilities and other services will be essential to bring out the innate potential of places and promote balanced regional development.

Effective waste management structures and facilities in strategic locations are considered vital to foster a wide range of enterprise activity and employment creation.

Efficient, effective and cost competitive waste management facilities are essential if industrial and enterprise activity is to thrive and develop in a balanced way across Ireland.

The NSS states that in order to emulate the economic success achieved in Dublin, Ireland needs to strengthen the dynamic, emerging critical mass of the existing gateways such as Cork. This will allow substantial new investment to be generated in and attracted to the regions and will complement the successful national spatial role of Dublin.

The NSS supports the strengthening of gateways such as Cork. Cork has the most potential to be developed to the national level scale required to complement Dublin. Metropolitan Cork is designated as a Gateway in the NSS and is the main engine of population and employment growth in the South West Region. Effective waste management structures and facilities in strategic locations are considered vital to foster a wide range of enterprise activity and employment creation.

The National Planning Framework is to replace the existing National Spatial Strategy in the coming year. *The objective of the National Planning Framework shall be to establish a broad national plan for the Government in relation to the strategic planning of urban and rural areas to secure balanced regional development and overall proper planning and sustainable development, and the co-ordination of regional spatial and economic strategies, and city and county development plans.*

### **5.6.3 Planning Policy Statement**

The Government published its first Planning Policy Statement in January 2015, which is intended to act as a general guiding document to the operation of the planning system and to outline the key values, principles and priorities that should underpin it. Through the non-statutory Planning Policy Statement 2015, the Government wishes

*“to reaffirm its strong belief in the value of a forward-looking, visionary and dynamic planning process, because it will ensure that the right development takes place in the right locations and at the right time and in providing the social, economic and physical infrastructure necessary to meet the needs of our people in a way that protects the many qualities of our natural and built environment”.*

The policy statement sets out ten key principles, the following of which are relevant to the proposed development:

1. *Planning must be plan-led and evidence based so that at the appropriate level, from the National Spatial Strategy, Regional Spatial and Economic Strategies, City and County Development Plans and Local Area Plans, the Government, local authorities and local communities, work together to set out a cohesive vision for the future of our country.*
2. *Planning must proactively drive and support sustainable development, integrating consideration of its economic, social and environmental aspects at the earliest stage to deliver the homes, business and employment space, infrastructure and thriving urban and rural locations in an economically viable manner that will sustain recovery and our future prosperity.*
4. *Planning must support the transition to a low carbon future and adapt to a changing climate taking full account of flood risk and facilitating, as appropriate, the use of renewable resources, particularly the development of alternative indigenous energy resources.*
6. *Planning will encourage the most efficient and effective use of previously developed (brownfield) land over the use of greenfield land to ensure the most efficient use of existing infrastructure, enhancing and strengthening the continued vitality of existing communities through regeneration.*
9. *Planning will support the protection and enhancement of environmental quality in a manner consistent with the requirements of relevant national and European standards by guiding development towards optimal locations from the perspective of ensuring high standards of water and air quality, biodiversity and the minimisation of pollution risk.*

The proposed Ringaskiddy Resource Recovery Centre is a plan-led development on an appropriately zoned and previously developed site in an area designated as an Industrial Area that is a Strategic Employment Area where large scale waste treatment facilities are considered. In addition, it will support sustainable development and support the transition to a low carbon economy through the treatment of waste by an accepted means, proximate to source, and to generate energy for supply to the national grid. It will also support the protection and enhancement of environmental quality, without impacting on designated sites, and improving local road and amenity infrastructure in the vicinity of the site.

#### **5.6.4 South-West Regional Planning Guidelines 2010-2022**

The South West Regional Planning Guidelines 2010-2022 set out the objectives and policies for securing balanced regional development in line with the NSS.

Section 5.6.12 of the SWRPGs states that under the Waste Management Acts, each local authority was required to make a Waste Management Plan (WMP) the objectives of which is to:

- Prevent or minimise the production and harmful nature of waste.
- Encourage and support the recovery of waste.
- Ensure that such waste as cannot be prevented or recovered is safely disposed of.
- Address the need to give effect to the polluter pays principle, in relation to waste disposal.
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It is stated in the Guidelines that significant inroads have been made in switching from the predominantly landfill based waste disposal system to integrated waste management programmes.

Accordingly policy objective RTS-08, in relation to waste management, states that it is an objective to encourage the delivery of an effective and efficient waste management service in line with the Waste Management Acts and promote local authorities to review their respective Waste Management Plans during the lifetime of the guidelines.

The Regional Planning Guidelines supports the incorporation of the recommendation and policies of the National Hazardous Waste Management Plan 2008-12.

From a regional perspective, the proposed Ringaskiddy Resource Recovery Centre will make a significant contribution towards the delivery of an effective and efficient waste management service, and ensure balanced regional development.

#### **5.6.5 Cork County Development Plan 2014-2020**

Section 11.7.3 of the Cork County Development Plan 2014 states that waste policy in the plan is guided by International, European and National guidelines as well as the Council's Waste Management Plan. It is also stated that consideration will be given to any changes in Government Policy, Best Available Technology (BAT) and best practice in waste treatment since the coming into effect of the current waste management plan.

Section 6.4.10 of the Cork County Development Plan 2014 states that lands identified for industry in Local Area Plans can normally be used for small/medium scale waste management and recovery operations where impacts are limited to the local area. Industrial Areas normally will not be used for large scale waste recovery, unless a specific requirement is identified by the Waste Management Plan. Section 6.4.11, however, states that the provision of strategic large scale waste treatment facilities will be considered in 'Industrial Areas' designated as Strategic Employment Areas in the local area plans subject to the requirements of National Policy, future Regional Waste Management Plans and the objectives set out in local area plans.

Accordingly, policy objective WS 7-1, in relation to Waste Management, seeks to:

- *Support the policy measures and actions outlined in 'A Resource Opportunity' 2012 – National Waste Policy.*
- *Encourage the delivery of an effective and efficient waste management service in line with the Waste Management Acts and relevant Waste Management Plan for the County/Region.*
- *Normally require details and formal development proposals of onsite provisions for the management of waste materials that are likely to be generated from the proposed use. The Council will require Waste Management Assessment for projects which exceed thresholds outlined.*
- *Support the incorporation of the recommendation and policies of the National Hazardous Waste Management Plan 2008-12.*

In relation to energy, policy ED 1-1 of the Plan seeks to ensure that through sustainable development County Cork fulfils its optimum role in contributing to the diversity and security of energy supply and to harness the potential of the County to assist in meeting renewable energy targets.

In relation to land use zoning, objective ZU 3-7<sup>11</sup> is of note. Pursuant to the Minister's Direction which came into effect on March 2015, this objective states as follows:

*ZU 3-7: Appropriate Uses in Industrial Areas*

- a) Promote the development of industrial areas as the primary location for uses that include manufacturing, repairs, medium to large scale warehousing and distribution, bioenergy plants, open storage, waste materials treatment, and recovery and transport operating centres'. The development of inappropriate uses, such as office based industry and retailing will not normally be encouraged. Subject to local considerations, civic amenity sites and waste transfer stations may be suitable on industrial sites with warehousing and/or distribution uses.*
- b) The provision of strategic large scale waste treatment facilities including waste to energy recovery facilities will be considered in 'Industrial Areas' designated as Strategic Employment Areas in the local area plans subject to the requirements of, National Policy, future Regional Waste Management Plans and the objectives set out in local area plans.*

It is noted that policy objective EE 4-1 of the Cork County Development Plan 2014 identifies Ringaskiddy as one of five Strategic Employment Areas in the County, the others being Carrigtwohill, Kilbarry, Little Island, and Whitegate. It is the objective to promote the development of Strategic Employment Areas suitable for large scale developments at Carrigtwohill, Kilbarry, Little Island, Ringaskiddy and Whitegate where such development is compatible with relevant environment, nature and landscape protection policies as they apply around Cork Harbour.

In relation to Cork Harbour, objective CS 4-1(d) of the Cork County Development Plan seeks to protect and enhance the area's natural and built heritage and establish an appropriate balance between competing land uses to maximise the areas overall contribution to Metropolitan Cork while protecting the environmental resources of the Harbour.

The Cork Harbour Study 2011 (draft), which is referenced in the Cork County Development Plan 2014-2020, seeks to promote a more integrated approach to development of the Harbour, using a coastal zone management approach. Among other issues, the Study seeks to maintain the availability of land in the harbour which is or could become a source of competitive advantage for sectors such as energy, marine transport, tourism and the pharmachem/biopharma cluster.

In relation to coastal protection, policy objective RCI 9-3 of the Cork County Development Plan 2014-2020 seeks to employ soft engineering techniques as an alternative to hard coastal defence works, wherever possible.

In relation to coastal beaches, policy objective RCI 9-5(a) of the Cork County Development Plan 2014-2020 seeks to maintain and improve County Cork's beaches to a high standard and develop their recreational potential as publicly accessible seaside amenity facilities, in accordance with the principles of proper planning and sustainable development.

Section 6.6 of the Development Plan sets out the policies with respect to the economic role of the Harbour. Policy objective EE 6-1 seeks to implement sustainable measures which support and enhance the economic and employment generating potential of Cork Harbour in a manner that is compatible with other Harbour activities, as well as with the nature conservation values of the Cork Harbour Special Protection Area and the Great Island Channel Special Area of Conservation.

Policy Objective EE 6-2 seeks to:

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<sup>11</sup> The Cork County Development Plan 2014 was subject to a Ministerial Direction arising from a concern that the Plan was not in compliance with the requirements of ss.9, 10 and 12 of the Planning and Development Act 2000, as amended as regards the consistency between objective ZU 3-7 and national waste policy and the then draft Southern Region Waste Management Plan. This Direction came into effect on 4<sup>th</sup> March, 2015



- "a) Protect lands for port related developments at Ringaskiddy.*
- b) Support the upgrade of the N28 to accommodate the expansion of Ringaskiddy Port.*
- c) Protect lands for port related development at Marino Point.*
- d) Protect harbour side land for industrial and marine related developments dependant on access to deep water unless able to demonstrate a strong need or significant economic benefit for other such development of harbour side lands, relative to alternative sites inland.*

*All development will be carried out in a manner that is compatible with other Harbour activities, taking account of residential amenity, tourism and recreation as well as with the nature conservation values of the Cork Harbour Special Protection Area and the Great Island Channel Special Area of Conservation."*

In relation to tourism, the Plan, through Objective TO 2-1, seeks to protect the natural, built and cultural heritage. In relation to the Harbour, the potential for Spike Island and Fort Camden to become internationally recognised tourist attractions is noted. Both of these attractions, which are rich in military history, will also greatly add to the creation of a military trail which is proposed as part of an Interpretive Framework for Cork City and Harbour being developed by Fáilte Ireland. The Council have prepared a 'Masterplan for Spike Island' which was adopted by the Council in 2012. It is hoped that the development of Spike Island as a visitor attraction will help build on the existing tourism and heritage infrastructure in Cork Harbour.

In the Landscape Character Assessment of County Cork (Table 1, Appendix E, Cork County Development Plan 2014-2020), Cork Harbour and Estuary has a very high landscape value and sensitivity, and is a landscape of national importance. Within these High Value Landscapes considerable care will be needed to successfully locate large scale developments without them becoming unduly obtrusive. Therefore, the location, siting and design of large scale developments within these areas will need careful consideration and any such developments should generally be supported by an assessment including a visual impact assessment which would involve an evaluation of visibility and prominence of the proposed development in its immediate environs and in the wider landscape. There are four designated scenic routes in the wider area of the site, namely A53/S53, A54/S54, A51/S51 and A57/S57. Policy GI 7-2 seeks to protect the character of the views and prospects from scenic routes.

#### **5.6.6 Carrigaline Electoral Area Local Area Plan 2015**

The Carrigaline Electoral Area Local Area Plan 2015 (2<sup>nd</sup> edition), which addresses site specific planning policies, states that the strategic aims for Ringaskiddy are to reaffirm its strategic industrial and port related roles and seek to promote its potential for large-scale stand-alone industry.

It is noted that Ringaskiddy is designated as a Strategic Employment Centre, within the County Metropolitan Strategic Planning Area and has developed into one of the most significant employment areas in the Country. The key planning issues for Ringaskiddy are securing enhanced public transport infrastructure, improved traffic management and environmental protection for the existing residential community in the area.

The subject site predominantly forms part of the I-15 site which is suitable for large stand-alone industry with suitable provision for appropriate landscaping and access points and provision for open space buffer to the Martello Tower and its associated pedestrian access. It is stated that this area may be used as a feeding ground by bird species for which Cork Harbour SPA is designated. Any development proposals on this land are likely to require the provision of an ecological impact assessment report to determine the importance of the area for such species and the potential for impacts on these. It should be noted that such an appraisal is included within the EIS, together with an evaluation of the potential significant impacts on European sites (as set out in the NIS submitted with the application for permission).

A small section of the overall Indaver site includes lands zoned objective O-08, which characterises an area of open space that acts as a buffer between proposed industry and established uses. The zoning objective states that while the patterns of land use will remain largely unchanged, if the adjoining land designated for industry is developed, consideration will be given to landscaping including strategic tree planting on the land.

The Local Area Plan states that there have been a number of flooding events in Ringaskiddy over the last decade. Future development is avoided in areas indicated as being at risk of flooding, unless a satisfactory Flood Risk

Assessment and Justification Test is undertaken in accordance with the Guidelines for Planning Authorities: The Planning System and Flood Risk Management, 2009. A flood risk assessment has been carried out on the proposed development. The proposed development site is not identified on the Local Area Plan as an area susceptible to flooding (Flood Zones A or B).

The Local Area Plan is to be reviewed in 2015 following the adoption of the Cork County Development Plan in December, 2014. Cork County Council issued the Ballincollig Carrigaline Municipal District Local Area Plan Review for consultation on 14<sup>th</sup> December, 2015. Section 3.5.5.1 of the Local Area Plan Review states that *It is envisaged that Ringaskiddy will continue to act as a Strategic Employment Centre and indeed should see significant industrial employment growth, which will serve the Ballincollig-Carrigaline Municipal District and Cork County as a whole.*

## **5.7 Interface between Planning and Waste Management Policy**

### **5.7.1 Policy at the national level**

Consistent with the National Development Plan, the proposed Ringaskiddy Resource Recovery Centre will contribute to the availability of high quality waste management solutions, ensuring national competitiveness and balanced regional development. In addition, the proposed development is premised on the thermal treatment of waste with energy recovery, which is the preferred option for dealing with residual waste after waste prevention, recycling and recovery.

The proposed Ringaskiddy Resource Recovery Centre is located in the strategic employment location of Ringaskiddy. In this way, the proposed development will fully consistent with the objectives of the National Spatial Strategy for balanced regional development and effective waste management structures.

The proposed Ringaskiddy Resource Recovery Centre will contribute toward the energy policy pillars of sustainability, security, competitiveness and contribution to the economy by generating renewable energy from indigenous biomass resources at low cost to industry and consumers.

The proposed Ringaskiddy Resource Recovery Centre will generate renewable electricity from the biomass contained in residual waste, thereby contributing toward achieving Ireland's renewable energy targets.

The proposed Ringaskiddy Resource Recovery Centre would help to reduce greenhouse gas emissions from waste management by diverting biodegradable waste away from landfill, and recovering renewable energy from it. In addition, the provision of treatment capacity in the Munster region will reduce the export of residual waste for recovery thus reducing carbon emissions from transport of waste.

### **5.7.2 Policy at the regional level**

From a regional perspective, the proposed Ringaskiddy Resource Recovery Centre will make a significant contribution towards the delivery of an effective and efficient waste management service, and ensure balanced regional development, in line with the provisions of the South-West Regional Planning Guidelines 2010.

The proposed development is a strategic large scale waste treatment facility, strategic as it addresses an identified need in the Southern Region Waste Management Plan, and of a large scale that is well within the thresholds for hazardous and non-hazardous waste treatment capacity.

The proposed development is firmly guided by the Environmental Protection Criteria of the Southern Region Waste Management Plan.

### **5.7.3 Policy at the local level**

Section 6.4.10 of the Cork County Development Plan 2014 states that industrial areas normally will not be used for large scale waste recovery, unless a specific requirement is identified by the Waste Management Plan.

Critically, however, Section 6.4.11 of the Plan states that the provision of strategic large scale waste treatment facilities will be considered in 'Industrial Areas' designated as Strategic Employment Areas in the local area plans subject to the requirements of National Policy, future Regional Waste Management Plans and the objectives set out in local area plans.

Ringaskiddy is one such Industrial Area designated as a Strategic Employment Area.

Therefore, the provision of a strategic large scale waste treatment facility at the proposed development site in Ringaskiddy, which is both an Industrial Area and Strategic Employment Area, is endorsed by Section 6.4.11 of the Plan.

Furthermore, the proposed development is supported by the zoning objective for appropriate uses in Industrial Areas, objective ZU 3-7(b).

Specifically, strategic large scale waste treatment facilities will be considered in 'Industrial Areas' designated as 'Strategic Employment Areas'.

The proposed Ringaskiddy Resource Recovery Centre is located in an industrial area designated as a Strategic Employment Area, in which large scale waste facilities will be considered, in accordance with zoning objective ZU 3-7(b) of the Plan.

In addition, the proposed development is supported by policy objective WS 7-1 in relation to Waste Management, as it is consistent with the provisions of Ireland's national waste policy, and contributes towards the delivery of an effective and efficient waste management service in line with the Southern Region Waste Management Plan 2015. The proposed development is also consistent with the policies of the National Hazardous Waste Management Plan.

In relation to energy, policy ED 1-1 of the Plan seeks to ensure that through sustainable development County Cork fulfils its optimum role in contributing to the diversity and security of energy supply and to harness the potential of the County to assist in meeting renewable energy targets.

The proposed development will contribute to a diversity in energy generation in line with policy ED 1-1.

In relation to coastal protection, policy objective RCI 9-3 of the Cork County Development Plan 2014-2020 seeks to employ soft engineering techniques as an alternative to hard coastal defence works, wherever possible.

Moreover, the proposed beach nourishment works in this instance will involve soft engineering techniques, consistent with policy objective RCI 9-3 of the Plan 2014.

In relation to coastal beaches, policy objective RCI 9-5(a) of the Cork County Development Plan 2014-2020 seeks to maintain and improve County Cork's beaches to a high standard and develop their recreational potential as publicly accessible seaside amenity facilities, in accordance with the principles of proper planning and sustainable development.

The proposed beach nourishment works in this instance will maintain and improve Gobby Beach in accordance with policy objective RCI 9-5(a) of the Plan 2014.

Section 6.6 of the Development Plan sets out the policies with respect to the economic role of the Harbour. Policy objective EE 6-1 seeks to implement sustainable measures which support and enhance the economic and employment generating potential of Cork Harbour in a manner that is compatible with other Harbour activities, as well as with the nature conservation values of the Cork Harbour Special Protection Area and the Great Island Channel Special Area of Conservation.

Policy Objective EE 6-2 seeks to:

- "a) Protect lands for port related developments at Ringaskiddy.*
- b) Support the upgrade of the N28 to accommodate the expansion of Ringaskiddy Port.*

*c) Protect lands for port related development at Marino Point.*

*d) Protect harbour side land for industrial and marine related developments dependant on access to deep water unless able to demonstrate a strong need or significant economic benefit for other such development of harbour side lands, relative to alternative sites inland.*

*All development will be carried out in a manner that is compatible with other Harbour activities, taking account of residential amenity, tourism and recreation as well as with the nature conservation values of the Cork Harbour Special Protection Area and the Great Island Channel Special Area of Conservation."*

The proposed development of the Ringaskiddy Recovery Resource Centre will provide additional employment in a Strategic Employment Area of Cork Harbour without impact on the activities of the Harbour, in accordance with policy objective EE 6-1.

Consistent with policy objective EE 6-2 the proposed development will not impact on the protection of port related developments at Ringaskiddy.

The proposed development is compatible with other Harbour activities, as well as with the nature conservation values of the Cork Harbour Special Protection Area and the Great Island Channel candidate Special Area of Conservation, in line with objective EE 6-2.

In relation to Cork Harbour, objective CS 4-1(d) of the Cork County Development Plan seeks to protect and enhance the area's natural and built heritage and establish an appropriate balance between competing land uses to maximise the areas overall contribution to Metropolitan Cork while protecting the environmental resources of the Harbour.

The Cork Harbour Study 2011 (draft), which is referenced in the Cork County Development Plan 2014-2020, seeks to promote a more integrated approach to development of the Harbour, using a coastal zone management approach. The Study seeks to maintain the availability of land in the harbour which is or could become a source of competitive advantage for sectors such as energy, marine transport, tourism and the pharma/chem/biopharma cluster. The proposed development is consistent with this approach.

In relation to tourism, the Plan, through Objective TO 2-1, seeks to protect the natural, built and cultural heritage. In relation to the Harbour, the potential for Spike Island and Fort Camden to become internationally recognised tourist attractions is noted. Both of these attractions, which are rich in military history, will also greatly add to the creation of a military trail which is proposed as part of an Interpretive Framework for Cork City and Harbour being developed by Fáilte Ireland. The Council have prepared a 'Masterplan for Spike Island' which was adopted by the Council in 2012. It is hoped that the development of Spike island as a visitor attraction will help build on the existing tourism and heritage infrastructure in Cork Harbour.

The proposed development will enhance the provision of tourist facilities in the area by the amenity walkway including viewing point. The upgrade of the local road will improve the section of road approaching to Gobby beach and Haulbowline Island. The dedicated viewing point will enable tourists to appreciate the natural, built and cultural heritage of Cork Harbour.

The proposed development will enhance the area's tourism potential and has been designed to integrate within its landscape without impact on the character of views and prospects from scenic routes, and without impact on the Harbour's heritage.

Cork Harbour and Estuary has a very high landscape value and sensitivity, and is a landscape of national importance. Within these High Value Landscapes considerable care will be needed to successfully locate large scale developments without them becoming unduly obtrusive. Consistent with the policy provisions for this High Value Landscape, the proposed development has been carefully designed (colour and form), and located such that will not be visually obtrusive in the context of the wider Cork Harbour area and relative to adjoining developments, including the wind turbines. The layout of the proposed development has been informed by the campus style character of the immediate area, while also being cognisant of Ringaskiddy's industrial and strategic employment role.

The subject site predominantly forms part of the I-15 site which is suitable for large stand-alone industry with suitable provision for appropriate landscaping and access points and provision for open space buffer to the Martello Tower and its associated pedestrian access in the Carrigaline Electoral Area Local Area Plan 2015. The proposed development is a stand-alone industrial development and high quality landscaping is incorporated into the development. The proposed development incorporates an amenity walkway along the eastern and part southern boundary which has the potential to improve access to the Martello Tower.

Consistent with the provisions of the LAP 2015, the proposed Ringaskiddy Resource Centre is a strategic industrial development, which will operate in accordance with current accepted traffic management practices and will also operate within stringent environmental controls to ensure the protection of the existing residential community in the area.

The proposed development is supported by the provisions of national, regional and local waste and planning policy with respect to waste management facilities.

## **6. Planning Assessment**

### **6.1 Do Nothing Scenario**

If the proposed development did not proceed, there would be a number of negative consequences for the waste management strategy of the Southern region.

Waste in the area currently travels through Cork City to the City Quays for export or is transported to landfill outside of the Southern Region.

However, it is a target of the Southern Region Waste Management Plan 2015-2021 to eliminate the use of landfilling of all major waste streams including municipal, industrial and construction and demolition wastes in favour of the recovery of residual wastes by 2030.

Therefore, there is a need to deliver alternative waste recovery operations in the medium to long-term.

While the Southern Region Waste Management Plan 2015-2021 acknowledges the impact of exporting waste in meeting landfill diversion targets and providing competitive gate fees, it is also concerned that an increased reliance on exporting waste could result in the loss of an alternative energy source, increased Greenhouse Gas transport emissions as a result of distances travelled to ports or landfill, and a lack of self-sufficiency.

MSW will continue to be exported for recovery in Waste to Energy facilities elsewhere in Europe, contrary to the proximity principle on which Irish waste policy is premised.

In addition, the spatial imbalance in the provision of Waste to Energy facilities in Ireland would not be addressed.

Furthermore, the proposed development site, being located in an Industrial Area and Strategic Employment Area, could be brought forward for an alternative industrial use, including a large scale waste facility, in line with the zoning objective for the site.

The L2545 road would continue to flood following heavy rainfall because the road drainage is inadequate. Excess surface water from the road would be diverted to the western field. There is a risk that a 1 in 200 year tidal flood event, combined with sea level rise as a result of climate change, would cause flooding to a small area of the site adjacent to the road.

In the scenario where the proposed sacrificial beach material was not to be undertaken, coastal recession would continue as it is at present.

### **6.2 Locational Issues**

Indaver purchased the proposed development site in or around December, 2000, on foot of a detailed alternative site appraisal of five areas around Cork Harbour. From that search, Ringaskiddy was identified as offering the best option for a possible site location. Four specific sites in Ringaskiddy were then short-listed for a more detailed investigation. Two of these were selected in early 2000 as preferred sites. One of these sites became available through a public auction in November 2000 and was purchased by Indaver. This is the site for the proposed development.

Indaver is acutely aware of advancement in waste and planning policy in the intervening years since 2000, and since the Board's previous consideration of the suitability of the site in 2008/2011.

In presenting the site in Ringaskiddy as the preferred location for the proposed development, Indaver has had regard to national, regional and local waste policy and planning policy. The key provisions, which have informed the preferred site at Ringaskiddy are set out below.

### **6.2.1 National and Regional Policy**

As noted above, Policy E15a of the Southern Region Waste Management Plan 2015-2021 supports the development of up to 300,000 tonnes of additional thermal recovery capacity for the treatment of non-hazardous wastes nationally. Equally, Policy E16 also supports the development of up to 50,000 tonnes of additional thermal recovery capacity for the treatment of hazardous wastes nationally. The Plan states that the spatial distribution of thermal recovery facilities nationally is potentially unbalanced, with all active and pending facilities located in one region, that region being the East and Midlands Region. Despite the strong road network linking regional urban centres to the Dublin area, the Plan endorses the need to consider the spatial distribution of thermal recovery capacity in the State when authorising future facilities.

In considering the spatial distribution of thermal recovery capacity, the Board is required to consider the National Spatial Strategy 2002-2020. National planning policy, as set out in the National Spatial Strategy, is predicated on securing balanced regional development through a network of Gateways and hubs, while acknowledging the importance of Dublin as the economic centre of the country.

Of the regional cities, Cork is stated to have the most immediate potential to be developed to the national level scale required to complement Dublin. The Cork Area Strategic Plan (CASP) provides the framework within which such potential can be captured. This is confirmed in the South-West Regional Planning Guidelines 2010-2022.

Furthermore, within the Southern Waste Region, which serves a population of 1,541,439 people (CSO: 2011), Cork City and County has the highest concentration of population of 519,032, which is over a third of the population of that Region. The South-West Regional Planning Guidelines 2010-2022 forecast that the population of Cork City and County is to grow to 620,622 by 2022.

Therefore, from a spatial perspective, consistent with the National Spatial Strategy, and having regard to the identified capacity and proximity principle advocated by national and regional Waste Policy, and the critical mass of population, the most logical location for additional thermal recovery capacity outside of the East and Midlands region, is the Cork area in the Southern Region.

As supported by Ireland's national and regional waste policy, the National Spatial Strategy promotes effective waste management structures and facilities in strategic locations, as being vital to foster a wide range of enterprise activity and employment creation.

### **6.2.2 Local Policy**

Section 6.4.1 and Policy Objective EE 4-1 of the Cork County Development Plan 2014 explains that Strategic Employment Areas are a key component of the economic infrastructure supporting the Cork Gateway, and that they play an important role in the development of internationally attractive 'clusters' of economic activities. Policy objective EE 4-1 of the Cork County Development Plan 2014-2021 identifies Ringaskiddy as one of five Strategic Employment Areas in the County, the others being Carrigtwohill, Kilbarry, Little Island, and Whitegate. This objective promotes the development of Strategic Employment Areas suitable for large scale developments, where such development is compatible with relevant environment, nature and landscape protection policies as they apply around Cork Harbour. Lands in these areas also require protection from inappropriate development which may undermine their suitability as Strategic Employment Centres.

Importantly, land use zoning objective ZU 3-7(c), the Cork County Development Plan 2014-2020 directs strategic large scale waste treatment facilities to 'Industrial Areas' designated as Strategic Employment Areas in the local area plans subject to the requirements of, National Policy, future Regional Waste Management Plans and the objectives set out in local area plans.

Ringaskiddy is also identified as a Strategic Employment Centre, focused on industry, in the Carrigaline Electoral Area Local Area Plan 2011. The strategic aims for Ringaskiddy are to reaffirm its strategic industrial and port related roles and seek to promote its potential for large-scale stand-alone industry.



From a waste and planning policy perspective, and consistent with Ireland's National Planning Policy Statement 2015, the proposed Resource Recovery facility in Ringaskiddy is plan-led, for the following reasons:

- National and regional waste policy advocate self-sufficiency and the proximity principle in the provision of waste management infrastructure for the State;
- Regional waste policy records a regional imbalance in the provision of such infrastructure;
- National and regional planning policy support the development of Cork with the largest concentration of population outside the Dublin area;
- Local planning policy in Cork directs large scale waste treatment facilities to Industrial Areas that are designated as Strategic Employment Areas;
- Ringaskiddy is an Industrial Area and is designated as a Strategic Employment Area.

### **6.2.3 Alternative Strategic Employment Areas**

Like Ringaskiddy, the Strategic Employment Areas of Carrigtwohill, Kilbarry, Little Island and Whitegate are also Industrial Areas.

In planning terms, these Strategic Employment Areas are generally of similar status from the perspective of their zoning, strategic function, accessibility (existing or planned), availability of lands, and services infrastructure (existing or planned).

The proposed development site in the Ringaskiddy Industrial and Strategic Employment Area is being advanced as the preferred location for the proposed development on the basis that:

- The site forms part of a strategic zoned industrial land bank, with a specific objective for stand-alone industry, in the strategic Cork Metropolitan area, at sufficient remove from concentrations of population, but in close proximity to the existing waste pre-treatment facilities for municipal waste, which are generally located east of Cork City.
- An operating licence was granted by the EPA for the operation of a waste-to-energy facility for MSW, hazardous and industrial waste on the site. The granting of a licence confirmed that the EPA concluded that the site was suitable for a Waste To Energy facility.
- The site was previously determined to be suitable for the treatment of hazardous and industrial waste. Planning permission was granted by An Bord Pleanála for a waste-to-energy facility to treat hazardous and industrial waste in 2004. In response to Indaver's 2008 planning application, in 2010, in a letter to Indaver, An Bord Pleanála said that the proposed location may be generally suitable for a waste-to-energy facility to treat hazardous waste subject to the submission of revised drawings and particulars and a revised EIS. In refusing permission for the 2008 application, the grounds for refusal cited by An Bord Pleanála related to the particulars of the proposed development and not any perceived unsuitability of the site location for a Waste To Energy facility.
- The site is located in an emerging alternative energy cluster in Ringaskiddy, and there is significant potential to maximise the contribution of the proposed development to this cluster of renewable energy and to the renewable energy sector in general.
- The policy environment for the treatment of MSW waste has changed significantly since 2008, with an identified need for adequate and active treatment in the Region.
- The proposed development site is owned by Indaver and is of sufficient scale to accommodate the Ringaskiddy Resource Recovery Centre.

Bottlehill in North Cork is also a potential alternative consideration. Bottlehill is a permitted and licensed landfill facility on a site of c. 100ha off the N20 between Cork and Mallow. The site infrastructure at Bottlehill, including the approach road, and one landfill cell has been constructed. However, Cork County Council no longer provides waste management services and the facility has not opened.

The site is the subject of current pre-application consultations with the Board under register reference PL04.PC0174 for a proposed 300,000 tonne per annum Waste-to-Energy Project, a Pyrolysis process with energy production.

It is understood that Cork County Council has recently sought formal expressions of interest for the future use of Bottlehill in North Cork, inviting proposals to lease and/or purchase the site. Indaver submitted a tender proposal to Cork County Council to operate the landfill at Bottlehill, as it would be a good site to treat the bottom ash produced by the proposed development. Proposals are currently being reviewed and it is anticipated that an agreement will be reached in 2016.

However, the site is at some remove from pre-treatment facilities located in the general area east of Cork City, with trucks having to traverse the City and Blackpool to access the site, as opposed to the improving accessibility of Ringaskiddy for road-based transport, by virtue of completed improvements to the Southern Ring Road interchanges, permitted improvements to the Dunkettle interchange, and proposed improvements to the N28.

In addition, the Bottlehill site is not located in the County Metropolitan Cork Strategic Planning Area, where policy objective CS 4-1(a) of the Cork County Development Plan 2014 seeks to *recognise the importance of the role to be played by Metropolitan Cork in the development of the Cork 'Gateway' as a key part of the Atlantic Gateways Initiative and, in tandem with the development of Cork City, to promote its development as an integrated planning unit to function as a single market area for homes and jobs*.

Furthermore, the proposed development site in Ringaskiddy is located closer to the main producers of hazardous waste. The proximity principle could not apply to Bottlehill for hazardous and industrial wastes, and equally the location in a remote rural area of the underpopulated North Cork is not proximate to the concentration of population of the Metropolitan Cork area.

For these reasons, the Bottlehill site is not considered to be an appropriate site for the proposed development.

In the spring of 2015 plans were unveiled for a waste-to-energy facility at a closed landfill at Gortadroma in Co Limerick. Gortadroma is a considerable distance from the main producers of hazardous waste in Cork Harbour and from the Cork City population centre. For these reasons the Gortadroma site is not considered an appropriate site for the Indaver facility.

There are no potential users of the heat in the vicinity of the Gortadroma site, which is located in a rural area with no substantial industrial or residential development. However, there are several large heat users within 3km of the Ringaskiddy site.

Land at Kilbarry, on the north-western outskirts of Cork City, is zoned industrial and is designated as a Strategic Employment Area. Under Objective ZU 3-7 of the Cork County Development Plan 2014-2020, a site in this Strategic Employment Area would be open for consideration for large scale waste treatment facilities including waste-to-energy recovery. The IDA Ireland owns the Kilbarry Business and Technology Park, a 55ha site at Kilbarry. The park accommodates light industrial units and offices. There are unused, serviced sites in the park. IDA land is reserved for incoming foreign direct investment and is not available for purchase for infrastructure. While there are light industrial units in other industrial estates adjacent to the N20, to the west of the Kilbarry area, there are no major industries, which might be potential heat or steam users. The road network serving the Kilbarry is very poor. The access roads from the N20, the nearest national primary route, are narrow and poorly aligned. If the Cork Northern Ring Road were to proceed, it would improve the road network in the area. However, there is no published timeframe for this road to proceed to the planning stage. Due to the poor road network and lack of other large industries in the area, Kilbarry is not considered a suitable site for the proposed development.

#### **6.2.4 Environmental Criteria**

It is clear from objective 15(a) of the Southern Region Waste Management Plan 2015-2021 that the proposed development must comply with the environmental protection criteria set out in section 16.5 of the Waste Management Plan.

In this regard, and as set out in detail in Chapter 3 of the EIS, the proposed development complies with the environmental protection criteria. In summary, it can be determined that:

- the proposed development has avoided, as far as possible, areas protected for landscape and visual amenity, geology, heritage and or cultural value. The proposed development is located in an area that already accommodates large scale industrial development and, having regard to its Strategic Employment Area designation, is zoned to accommodate future expansion of this industrial base, notwithstanding its High Value Landscape designation;
- in relation to European Sites, the proposed development site is not designated as a candidate special area of conservation [cSAC] or a special protection area [SPA] and there are no Annex 1 habitats on the site. The nearest European site is the Cork Harbour SPA, the nearest point of which is located approximately 500m to the south of the site. The potential impact of the project on European sites is evaluated in the Natura Impact Statement which accompanies this application, which has concluded that the proposed development will not have any adverse effects on the conservation objectives of the Cork Harbour SPA;
- the proposed development has avoided areas designated as a natural heritage area, a proposed natural heritage area, a Statutory Nature Reserve or a Refuge for Fauna;
- Japanese knotweed, an invasive alien species, has been identified in the north-western corner of the western part of the site. National codes of practice relating to the prevention of the spread of invasive alien species will be complied with in relation to the treatment of the Japanese knotweed identified on the site during the construction of the proposed development;
- there are no rivers, ponds or small woods on the site of the proposed development and the site is not on a river bank. The site does not form part of a feature which is essential for the migration, dispersal and genetic exchange of wild species;
- there are no rivers, streams or watercourses on the site of the proposed development;
- the site of the proposed development is suitable for a SuDS approach to surface water drainage and a site-specific SuDS solution will be applied, subject to the requirements of industrial emissions licensing;
- the proposed development site is not located in a Flood Zone by reference to the Carrigaline Electoral Area Local Area Plan 2015, which contains the OPW's National Flood Hazard Mapping as it pertains to the Carrigaline area, including Ringaskiddy. A Flood Risk Assessment is included in Appendix 13.4 of the EIS. This states that given the absence of any significant watercourse in the vicinity of the site, the risk of fluvial flooding is very low. In addition, the site is not indicated as being within the design 1000 year tidal floodplain. Consequently the site is classified as lying within Flood Zone C. Furthermore, there is a low risk of groundwater flooding of the site. Based on a review of all available information, the 1 in 200 year design tidal level at the site has been estimated as 2.73m OD. Sections of the road close to Gobby beach car park are below this level and are therefore at risk of tidal flooding during a 1 in 200 year tidal event. Small areas of the site along the northern boundary are also below the predicted 1 in 200 year design tidal level (2.73m OD). The majority of the site is above 2.73m OD. There is a risk of pluvial flooding to the L2545 and the low lying areas of the site during periods of heavy rainfall due to an insufficient drainage network and tide locking of the existing drainage outfall. In addition, there are a minimal number of gullies along the road to accept water and transfer it the storm water sewer. A number of channels have been cut in the berm on the southern side of the road which allow surface water drain from the road and into the western field area of the Indaver site as a section of this field is lower than the adjacent road level. Therefore, it can be concluded that the existing formal drainage system on the L2545 is inadequate. As part of this development proposal, the levels of the Indaver site will be increased such that all areas of the site will be above the 1 in 200 year high tide level. In addition the surface water drainage of the L2545 adjacent to the Indaver site will be upgraded to ensure that flooding will not occur on the road. This upgrade will address the issue of flooding for road-users relating to all sites in the locality, including Spike Island, Haulbowline, and the National Maritime College of Ireland;
- in relation to the geological and hydrogeological conditions of the site, a review of the landslide information on the GSI Irish Landslides Database indicates that the landslide potential in the vicinity of the site is primarily confined to the shore line. Refer to Figure 13.8 of the EIS which is an extract from GSI Irish Landslides Database mapping. The proposed placement of sacrificial material on the beach will mitigate this potential hazard. In the past, the overburden on a section of the eastern part of the site was removed for reclamation works to the north of the site. The resultant slope is steep and is indicated to have some landslide potential in the GSI landslide data base. The proposed placement of sacrificial beach nourishment material will mitigate the potential landslide hazard, which is primarily confined to the shore line at the site. Earth/rock retaining structures will be constructed in the eastern part of the site as required to ensure the continued stability of this part of the site. The primary water source in Ringaskiddy is an Irish

Water piped supply and not groundwater. The degree of surface water/groundwater interaction has no implication for the development of the site;

- Coastal protection mitigation measures are not required for the Waste To Energy facility element of the development. However, there is a low risk that the proposed amenity walkway and viewing platform and a section of the diverted gas pipeline could be impacted in 40 years' time, coastal protection measures to reduce the rate of erosion have been included in this planning application as a precautionary measure so as to reduce the rate of erosion of the glacial till face. It is proposed that the Indaver coastal boundary is monitored on an annual basis. In addition, approximately 1100m<sup>3</sup> of shingle of appropriate size and shape (rounded) will be placed above the foreshore on Gobby beach along the eastern boundary of the Indaver site. This will be a 'soft' solution which will potentially reduce erosion rates by limiting the exposure of the top of the glacial till face to wave action. The shingle will be confined to the beach adjacent to the site within Indaver ownership. necessary from beach monitoring data. The main aim of placing the material is to act as a proactive measure for the coastal area adjacent to the Indaver site only.
- Cork airport is approximately 12.5km from the site. The Irish Aviation Authority were consulted in the course of preparation of the EIS and planning application;
- the Ringaskiddy area is served by the N28 national primary route. The L2545 road, which forms the northern boundary of the site of the proposed development, connects to the N28 approximately 400m from the site's western boundary. The TII proposes to upgrade the N28 which will improve the access to the site. The impact of the facility on road access, the road network, safety and traffic patterns has been assessed in the preparation of the EIS. A HGV Mobility Management Plan is proposed for the Resource Recovery Facility. This is similar in approach to that which has recently been permitted by An Bord Pleanála for the Port of Cork's container terminal in Ringaskiddy, under register reference PL 04.PA0035; and
- a section of the eastern part of the site of the proposed development was removed for reclamation works to the north of the site. The site is appropriately zoned for industrial use and is in the Strategic Employment Area of Ringaskiddy, which is where strategic large scale waste facilities are to be located. The site offers opportunities to integrate differing aspects of waste processing, being adjacent to the Hammond Lane Metal Recycling Company Ltd premises. There are also potential added synergies with the emerging energy cluster associated with the adjacent IMERC facility. The energy generated by the proposed development will be renewable energy.

In addition, the proposed development responds to the need to consider the spatial distribution of thermal recovery capacity in the State as is required by the Southern Region Waste Management Plan 2015-2021.

In summary, the proposed development complies with Policy E15a and Policy E16 of the Southern Region Waste Management Plan 2015-2021, as it proposes the development additional thermal recovery capacity for the treatment of non-hazardous wastes within Ireland, and additional thermal recovery capacity for the treatment of hazardous wastes within Ireland, within the 300,000 tonnes and 50,000 tonnes capacity limit respectively.

Furthermore, the proposed development fully complies with the environmental protection criteria of section 16.5 of the Southern Region Waste Management Plan.

In this regard, the proposed development has been properly sited in accordance with the policy provisions of the Southern Region Waste Management Plan and the Cork County Development Plan 2014-2020.

### **6.3 Assessment of previous reasons for refusal**

As noted above, An Bord Pleanála refused permission on 9<sup>th</sup> June, 2011 for a waste to energy facility and a waste transfer station at the subject site on 28<sup>th</sup> November, 2008, reference PL04 .PA0010, for four reasons. These shall be addressed in turn:

1. The Board's first reason for refusal is in two parts, firstly, the layout and limited size of the site, and secondly, incompatibility with regional or local waste policy.

#### **6.3.1 Layout and Size of Development**

In relation to the first issue, the Board will note that the footprint of the proposed development has been significantly reduced from that presented in 2008 and indeed from that permitted in 2001.

Critically, the footprint of the proposed process building, aero-condensor and turbine is now less than 9,300m<sup>2</sup> in area compared with the 2008 proposal (14,168m<sup>2</sup>) or the 2001 proposal (14,117m<sup>2</sup>). In effect, the footprint of the proposed development has been reduced by a third of that previously proposed. Consequently, the proposed development does not constitute overdevelopment of the site. Refer to Figure 1.4 of the EIS for a footprint comparison.

In addition, the proposed development has been significantly reduced in scale and now involves a single line moving grate operation as opposed to the previously proposed double line.

Furthermore, the previously proposed waste transfer station has been omitted.

In addition, the flue stack has been reduced in height from 85m as previously proposed to 70m.

Furthermore, the main building has been broken down into a series of irregular block shapes that respond to the site's typography and context, with the use of colours to integrate the buildings into the surrounding landscape.

Ample landscaping including boundary detailing has been incorporated to project a quality and corporate image, consistent with the emerging renewable energy and research context for the area.

In combination, these changes have resulted in an appropriately-scaled development proposal that is well positioned in the site, with all associated ancillary structures and infrastructure including truck parking, internal circulation routes, shut down area, and car parking adjacent to the main building.

The refusal reason of limited site size does not, therefore, arise in relation to the development proposed on this application for permission.

#### **6.3.2 Waste Policy**

In relation to previous incompatibility with waste policy, the Board will be aware that the waste policy environment has changed significantly since the Board's determination on the previous application in 2011, at a national, regional and local level. Section 5.1 of this report sets out the key policy provisions in detail, and can be summarised as follows:

- Ireland's national waste policy, 'A Resource Opportunity – Waste Management Policy in Ireland, July 2012', establishes a framework for the provision of effective and efficient waste management services through the establishment of three new waste management planning regions. In keeping with the proximity and self-sufficiency principles advocated EU Waste Framework Directive 2008, a key objective of these waste management plans is to ensure a sufficiency of waste management infrastructure within the state to manage municipal waste;
- In relation to hazardous waste, Ireland's National Hazardous Waste Management Plan, 2014-2020 states that Ireland should strive for greater self-sufficiency in hazardous waste management where it is

strategically advisable and where it is technically and economically feasible. Such self-sufficiency includes addressing the deficit in thermal treatment capacity in Ireland for Irish wastes currently being exported;

- On foot of the national policy framework, three Region Waste Management Plans have recently been adopted, one for each of the Eastern and Midlands region, the Connacht Ulster region and the Southern region. Policy A4 of the Plans seeks to improve regional and national self-sufficiency of waste management infrastructure for the reprocessing and recovery of particular waste streams, such as mixed municipal waste. It is further stated that the proximity principle will be applied in the context of the scale of the proposed facilities. The preferred treatment of non-recyclable residual waste is recovery;
- Policy E15a of the Southern Region Waste Management Plan 2015-2021 supports the development of up to 300,000 tonnes of additional thermal recovery capacity for the treatment of non-hazardous wastes nationally to ensure there is adequate active and competitive treatment in the market, and the State's self-sufficiency requirements for the recovery of municipal waste are met;
- Policy E16 of the Southern Region Waste Management Plan 2015-2021 also supports the development of up to 50,000 tonnes of additional thermal recovery capacity for the treatment of hazardous wastes nationally to ensure that there is adequate capacity for the treatment of hazardous wastes nationally;
- The Plan states that the spatial distribution of thermal recovery facilities nationally is potentially unbalanced, with all active and pending facilities located in one region, that region being the East and Midlands Region. The Plan endorses the need to consider the spatial distribution of thermal recovery capacity in the State when authorising future facilities;
- Objective 15(a) of the Southern Region Waste Management Plan 2015-2021 requires that any facility must comply with the environmental protection criteria set out in section 16.5 of the Waste Management Plan;
- Policy objective RTS-08 of the South-West Regional Planning Guidelines 2010-2022 encourages the delivery of an effective and efficient waste management service in line with the Waste Management Acts;
- At the local level, the 2012 Evaluation of the Waste Management Plan for Cork County (2004-2009) stated that consideration must now be given to the provision of waste to energy plants in the County as part of an integrated approach to waste management in line with EU and National Policy;
- In the Cork County Development Plan 2014-2020, the zoning objective for appropriate uses in Industrial Areas, objective ZU 3-7(b), states that strategic large scale waste treatment facilities will be considered in 'Industrial Areas' designated as 'Strategic Employment Areas'. The proposed Ringaskiddy Recover Resource Centre is located in an industrial area designated as a Strategic Employment Area, in which large scale waste facilities will be considered.

These changes in policy at the national, regional and local level provide a significantly positive context for the proposed development, such that the proposed development is now entirely compatible with waste policy in Ireland.

Undoubtedly, the proposed development is plan-led.

Furthermore, the proposed development has been properly sited in accordance with the land use and environmental protection policy objectives of the Southern Region Waste Management Plan 2015-2021 and the Cork County Development Plan 2014-2020.

On this basis, the issues raised in refusal reason no. 1 of PL04 .PA0010 have been fully addressed.

2. The Board's second reason for refusal mirrors the first part of refusal reason no. 1.

As noted above, significant revisions have been made to the proposed development including:

- the footprint of the proposed development has been significantly reduced by a third of that presented in 2008 and indeed from that permitted in 2001;
- coastal protection measures have been included in this planning application as a precautionary measure so as to reduce the rate of erosion of the glacial till face;
- it now involves a single line moving grate operation as opposed to the previously proposed double line;
- the waste transfer station has been omitted;
- the flue stack has been reduced in height by 15m to 70m;
- the main process building has been designed to integrated it into the surrounding landscape; and

- additional landscaping is proposed.

In this regard, the previous refusal reason of overdevelopment of the site, does not, therefore, arise in the context of the development now proposed.

In relation to hazardous waste, as noted above, there is a new National Hazardous Waste Management Plan, 2014-2020 in place, which states that Ireland should strive for greater self-sufficiency in hazardous waste management where it is strategically advisable and where it is technically and economically feasible. Such self-sufficiency includes addressing the deficit in thermal treatment capacity in Ireland for Irish wastes currently being exported. As noted in Chapter 2 of the EIS, the Plan sets out three overarching strategic needs for the treatment of hazardous waste and consequent reduction in exports, including the expansion of recovery and treatment capacity; addressing the deficit in thermal treatment capacity in Ireland; and securing long-term disposal arrangements where thermal treatment of recovery is not suitable. It is also state that consideration should be given to co-location of hazardous waste treatment at existing waste facilities or brownfield sites for the purposes of sustainability and land use planning.

Furthermore, and again as noted above, Policy E16 of the Southern Region Waste Management Plan 2015-2021 supports the development of up to 50,000 tonnes of additional thermal recovery capacity for the treatment of hazardous wastes nationally. The Plan states that the spatial distribution of thermal recovery facilities nationally is potentially unbalanced, with all active and pending facilities located in one region, that region being the East and Midlands Region. In this regard, the Plan endorses the need to consider the spatial distribution of thermal recovery capacity in the State when authorising future facilities.

The proposed Ringaskiddy Resource Recovery Centre will help address the deficit in thermal treatment capacity in Ireland for hazardous waste, making a significant contribution toward self-sufficiency and minimising hazardous waste export. The proposed development will co-locate the treatment of suitable hazardous waste with the treatment of residual municipal waste. In addition, the proposed development complies with Policy E16 of the Southern Region Waste Management Plan 2015-2021, as it proposes the development of additional thermal recovery capacity for the treatment of suitable hazardous wastes within Ireland, within the 50,000 tonnes capacity limit identified.

In relation to amenity, the proposed development seeks to improve the amenities by providing a walkway from the car park adjacent to Gobby Beach to Martello Tower (as much of it that can be delivered within the site boundary) and providing a viewpoint at the upper level of the site to facilitate views of the Harbour. In addition, beach nourishment works to Gobby Beach will enhance this amenity.

In addition, the proposed upgrade to the local road will improve its amenity for runners, walkers and cyclists, particularly in respect of the flood alleviation works proposed.

Furthermore, the proposed development will have a visitor centre. By way of demonstration of the utility of such a visitors' centre, to date, more than 2,000 visitors have visited the applicant's existing waste to energy facility in Meath.

The comprehensive landscaping and design proposed will complement the campus style of recent developments to the north of the proposed development site, ensuring a visually attractive approach and context to the permitted public park at Haulbowline.

The proposed development will not have an impact on shellfish production, fishing or angling in Cork Harbour.

### 3. Road Flood Risk

In relation to risk of flooding of the L2545, it is proposed to raise a section of the L2545 road to a maximum elevation of 3.45m OD and improve the drainage, which is currently inadequate, and landscape the southern road verge. This will alleviate the pluvial flooding of the road, following heavy rainfall. Significantly, a section of the L2535 road will be raised above the 1 in 200 year design tidal level. An upgrade of surface water drainage network in the L2545 road from the western end of the Indaver site to the eastern end of Gobby Beach car park is also proposed. The



upgrade works to the L2545 are confined to the land owned by Indaver and a narrow strip owned by Hammond Lane Metal Recycling Company Limited from whom consent has been obtained. As there is a public right of way over the L2545, consent has also been secured by Cork County Council. The upgraded road must tie into the levels of the access roads to the adjoining premises and the existing road levels at either end of the upgrade.

The road upgrade will take circa 12 weeks to complete and it is anticipated that the upgrade of the road and the upgrade of the road drainage system will proceed in advance of the construction of the proposed development. During construction, the amenity of the L2545 road on the north side of the facility will be reduced due to the road upgrade and road drainage works. The traffic will be diverted onto the temporary road until the L2545 upgrade works have been completed. Of the 12 week duration period, Gobby Beach car park may need to be closed for up to 6 weeks to facilitate the construction works. However, access to the beach will be maintained for the duration of the works.

Section 4.5.14 of the EIS describes the works involved in the proposed road upgrade in detail, and the potential impacts of the proposed upgrade have been fully assessed in the Environmental Impact Statement.

In this regard, the proposed works to the local road have been fully described and assessed. There is now certainty as to how the works are to be implemented, by whom, and by when. Access to the proposed development, and existing development, will be available at all times.

In this context, the third reason for refusal has been comprehensively addressed.

#### 4. Coastal Erosion

In relation to the issue of coastal erosion, it is important to note that, in the first instance, during its 30 year operational lifetime, the site of the proposed development will not be affected by coastal erosion to the east of the proposed development site. There could be a low risk of an impact on a small section of the proposed development after 40 years however this would be confined only to the amenity walkway and viewing platform and a small section of a diverted gas pipeline outside of the security fence line.

Accordingly, Chapters 4 and 13 of the EIS describes the proposed works in detail, and assess their impact. The protection measures will consist of the placement of approximately 1100m<sup>3</sup> of shingle of appropriate size and shape (rounded) above the foreshore on Gobby beach along the eastern boundary of the Indaver site.

This will be a 'soft' solution which will reduce erosion rates by increasing beach levels i.e. reducing near shore water depth and wave heights and will protect the glacial till face from breaking waves. Softer engineering techniques to address coastal erosion are the preferred option in planning terms. Policy objective RCI 9-3 of the Cork County Development Plan 2014-2020, which seeks to employ soft engineering techniques as an alternative to hard coastal defence works, wherever possible, refers.

These works are located within the applicant's lands above the foreshore.

It is proposed that the additional sacrificial material is placed during the construction period of the Indaver site. Thereafter, it is proposed that the placement of further additional sacrificial material is carried out if the cliff erosion rate is more than 0.5m per year measured over a period of six years, which would indicate some acceleration in the current erosion rate, or when the cliffs have retreated by approximately 3m, whichever is sooner. For this reason the coastal boundary of the Indaver site will be monitored for erosion on an annual basis.

The proactive monitoring will comprise:

- Annual topographic surveys which will include 0m contour, top and bottom of cliff face monitoring and specified sections.
- An assessment of the retreat and reporting over the design life of the proposed development including the construction period (40 years).
- Proactive and reactive management of the beach comprising placement of imported shingle to areas of the beach where deemed necessary from beach monitoring data.

The main aim of placing the material is to act as a proactive measure for the coastal area adjacent to the Indaver site only. The solution will have no negative impacts on the adjoining areas. However there will be benefits associated with the works as well as the provision of an environmentally friendly solution. The net coastal sediment transport goes from south to north according to wind conditions and swell; therefore the material is likely to move towards the north in the medium and long term. The Cork Harbour Special Protection Area (SPA) is located to the south west of the site and therefore the sacrificial material will not impact on the SPA.

In this context, the fourth reason for refusal has been comprehensively addressed.

Overall, the four reasons for refusal have been addressed in detail by the applicant. The proposed development will cater for household, commercial, industrial, non-hazardous and suitable hazardous waste, in accordance with national, regional and local policy and constitutes an important element of national strategic infrastructure.

Furthermore, the proposed development has been significantly reduced in scale, such that it is fully contained within the site. In addition, the raising the level of the road and the proposed coastal protection measures have been fully examined in the EIS and impacts assessed.

## **6.4 Environmental Impact**

The environmental impact of the proposed development has been subject to a comprehensive Environmental Impact Statement [EIS] and Stage One Screening Report & Natura Impact Statement, of which the following key issues are of note:

### **6.4.1 Population/Socio-Economic Impacts**

The proposed development will provide additional employment at construction (320) and operational (63) stage.

The proposed development is not an establishment for the purposes of Council Directive 96/82/EC of 9 December 1996 amended by Directive 2003/105/EC of the European Parliament and Council of 16 December 2003 (the "Major Accidents Directive") or the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2006 ("the Major Accident Regulations"). However, the proposed development is in the vicinity of an existing establishment or establishments and may be relevant to the risk or consequences of a major accident. The application for permission in respect of the proposed development is one to which article 215 of the Planning and Development Regulations 2001, as amended, refers.

No adverse human health effects are predicated from the proposed development.

There will not be a significant impact from odours resulting from the proposed development.

The road upgrade will take circa 12 weeks to complete and it is anticipated that the upgrade of the road and the upgrade of the road drainage system will proceed in advance of the construction of the proposed development. During construction, the amenity of the L2545 road on the north side of the facility will be reduced due to the road upgrade and road drainage works. The traffic will be diverted onto the temporary road until the L2545 upgrade works have been completed. Of the 12 week duration period, Gobby Beach car park may need to be closed for up to 6 weeks to facilitate the construction works.

Access to the recreational amenity of Gobby Beach shoreline and nearby car park will be a temporarily impacted (for approximately 3 weeks) during the placement of sacrificial beach material. The sacrificial material consists of imported shingle which will be temporarily deposited on the car park. To ensure the safety of the general public, it is envisaged that the area of the beach, in which the construction works will taking place and the area of the car park in which the materials will be stored, and which will be used by the machinery, will be closed to the public for the duration of the proposed works. However, access to other sections of the beach will be maintained for the duration of the works.

The proposed mitigation measures, including dust minimisation plan, construction environmental management plan and waste management plan, will minimise nuisance and inconvenience to the local residents during the construction of the proposed development.

In land use terms, the proposed development constitutes a stand alone industrial use on a site designated for stand-alone industrial development. Zoning objective I-15 refers. The proposed development complies with the zoning objective for the site. Adequate landscaped buffers are proposed as appropriate.

Tourism in the immediate Ringaskiddy area is not a key economic driver of the primarily industrial area of the proposed development. That said, the proposed development will include additional tourism infrastructure to attract additional visitors to the Ringaskiddy area, and to improve the variety of the tourism offer in wider Cork Harbour, in particular the viewing point to maximise the appreciation of views including those of the harbour's military past and present, especially at Spike Island.

The proposed Waste to Energy facility will be positioned at an angle on the site so as to maintain a clear sightline from the Martello Tower to the Fort on Spike Island. The proposed development will include the creation of a pathway along the site's southern boundary to its north eastern point, which could form the chief section of any future link between the Martello Tower and Gobby beach. The beach nourishment works will also improve this local amenity. The road upgrade works will improve the experience of walkers, joggers and cyclists in the area, by

removing flooding arising from periods of heavy rainfall. In addition, the proposed development will include a visitor centre.

In this way, the proposed development is compatible with the tourism objectives for the Cork Harbour as set out in the Cork County Development Plan 2014-2020, and with the proposals for Haulbowline and Spike Island.

To tourists using the ferry at Ringaskiddy, or cruise ship passengers at either Cobh or Ringaskiddy, the proposed development will read as part of the large stand-alone industrial landscape of the Ringaskiddy area.

The jobs created during construction and operation, and the contribution which Indaver and its employees will make to the local economy, will have a significant positive economic impact on the area.

#### **6.4.2 Construction Impact**

It is anticipated that, in the event that the Board decides to grant permission, construction will commence in 2017.

The schedule for the construction and commissioning of the proposed development is approximately 31 months. The road upgrade will take circa 12 weeks to complete and it is anticipated that the upgrade of the road and the upgrade of the road drainage system will proceed in advance of the construction of the main process building and associated structures.

A projected net quantity of ~114,000 tonnes of soil will be excavated and removed from the site. This excludes the quantity which will be re-used to raise the levels in the western field. This figure also excludes the quantity of material which will be removed to facilitate the L2545 upgrade as this will occur before the earthworks phase commences. In addition, ~42,000 tonnes of fill material is expected to be imported to construct the main retaining structures at the same time. This figure excludes the quantity of import material required for the L2545 upgrade. This figure also excludes the quantity of shingle required for the coastal protection works as this will occur at the end of the construction period.

A construction environmental management plan (CEMP) will be prepared prior to construction commencing. The CEMP will comprise all of the construction mitigation measures, which are set out in the EIS, and any additional measures which are required by the conditions attached to the Board's decision. Implementation of the CEMP will ensure disruption and nuisance are kept to a minimum. The plan will have regard to the guidance contained in the handbook published by Construction Industry Research and Information Association (CIRIA) in the UK.

Indaver will appoint a construction management team for the duration of the construction phase. The team will supervise the construction of the project, including monitoring the performance of the contractors to ensure that the proposed construction phase mitigation measures are implemented and that construction impacts and nuisance are minimised. Indaver will liaise with neighbours and the general community during the construction phase to ensure that any disturbance is kept to a minimum.

A dust minimisation plan will be formulated for the construction phase of the proposed development. A number of measures will be taken to ensure that the site and surroundings are maintained to a high standard of cleanliness during the construction phase.

Construction activities can be undertaken within the adopted noise criteria at the nearest sensitive buildings. No construction vehicles will arrive or depart the proposed development site during the morning and evening peak periods (07:00-09:00 and 16:00-18:00) during the construction phase. Typical working hours during the construction phase will be:

Start	Finish	
0600	2000	Monday – Friday
0700	1300	Saturday

However, it will be necessary to work overtime (including at weekends) and night shifts at certain critical stages during the project. Consideration of safety, weather or sub-contractor availability is likely to necessitate working outside normal hours. Over the 31 month construction phase there will be up to 8 weeks of night time working.

Construction noise will be kept to a minimum. There will be no significant construction noise or vibration impacts on neighbouring residences. It is anticipated that no significant vibration will be generated during the construction phases of the proposed development. Piling is likely to be required. It will utilise methods that will minimise the risk of vibration generation and will only be undertaken in daytime. Rock breaking, if required will use methods that will minimise noise and vibration.

The existing services running in and adjacent to the site and the road will be carefully located, identified and suitable working methods will be employed to ensure that these services are protected. Diversion or relocation of services will be undertaken in consultation with the owners of the services and will be undertaken in accordance with the relevant standards and codes of practice. Service users will be notified in advance of any temporary disruption or outages necessitated by the construction works. The disruption to services or outages will be carefully planned so the duration are minimised.

It is anticipated that, in circumstances where the recommended mitigation measures are implemented, the construction phase of the development will not have significant impacts. Residual impacts during the construction phase of the proposed development and of the upgrade to the L2545 will be temporary in nature.

#### **6.4.3 Air Quality and Climate**

The emissions to atmosphere arising from the operation of the facility will be extremely low.

In particular, based on the monitoring of actual emissions from Indaver's Waste-to-Energy facility in County Meath and other comparable facilities, the emissions of dioxins will be less than one-tenth of the relevant EU limit.

Detailed air dispersion modelling has shown that the most stringent ambient air quality standards for the protection of human health will not be exceeded at any location. Thus, as a consequence of the design of the waste to energy facility, no specific additional mitigation measures are required during the operational phase of the facility.

The air quality impact of the proposed facility will be insignificant.

There will be no significant impact on climate during the construction phase of the project. During the treatment of waste at the facility, the thermal energy generated by the burning of waste will be recovered and will give an electrical output of about 21 MW with a net electrical output from the plant for export to the national grid of 18.5MW. Thus, the export of 18.5MW will give a direct benefit in terms of GHG emissions which would have been released in the production of 18.5MW from fossil-fuel burning power stations. The proposed development will also recover and recycle ferrous and non-ferrous materials during the thermal treatment process. The recycling of these metals will require less energy than processes using virgin inputs and thus lead to a direct saving in energy and thus GHG emissions. The operational phase will not cause a significant impact on climate. Residual emissions from the operational phase will be 0.07% of Ireland's GHG target for 2020 and thus is not considered to be significant.

#### **6.4.4 Traffic**

In response to stakeholder engagement, Indaver has approached the design, construction and operation of the proposed development on the principle of minimising traffic at peak periods through the implementation of a HGV booking system, and the arrangement of operational personnel shifts and visitor traffic so that the facility generates minimal traffic on the local road network during the AM and PM peak traffic periods (from 07:00-09:00 and 16:00-18:00 respectively) once operational. These initiatives are similar to those developed at the Port of Cork as part of their approach to management of traffic flow at peak times.

Furthermore, a robust staff Mobility Management Plan, will ensure that there are no staff movements to or from the facility for two-hour periods in the morning and evening by car, while HGV movements will also be reduced to a minimum level during these times.

In addition, Indaver will arrange construction contracts such that all construction travel to and from the site will be controlled and managed and will not be permitted to access the site during the peak traffic periods, except in situations of emergency.

The M28 and Dunkettle Interchange upgrade schemes have not been included in the appraisals submitted with the application for permission in order to ensure a robust, worst-case scenario. These are not necessary for the proposed development.

The construction phase duration is expected to be approximately 31 months. Over the 31 month construction phase there will be up to 8 weeks of night time working. Temporary office accommodation, welfare facilities, and laydown areas will be established in the western field for the construction phase. The road upgrade will be undertaken first, and will take circa 8 to 12 weeks to complete. This will be followed by the earthworks, which will take circa 13 weeks to complete. After that, the construction of the main element, the waste-to-energy facility, will begin. The placement of the shingle above the foreshore line will take approximately three weeks to complete and will likely be undertaken towards the end of the construction phase.

It is estimated that there will be a total of 1,194 construction vehicles over the course of the day during the construction period. This excludes the earthworks element of the construction. It is estimated that the entire excavation and import processes will be carried out over a 16-week period. This equates to 17 truckloads per hour for the first 6 weeks when both processes are occurring at the same time, and then will equate to 9 trucks per hour for the remaining 7 weeks. It also excludes the beach nourishment works, which will require 83 truckloads in total, equivalent to an average of 3 trucks per hour. However, the phasing of this will be programmed so as to not occur in tandem with either earthworks or construction phases.

Approximately 320 construction workers will be employed on site, with around 250 workers working a daytime shift and 70 working a night shift.

A Construction Traffic Management Plan will be prepared by the appointed main contractor prior to construction commencing.

It is proposed to reduce construction-related traffic to zero, and to restrict operational waste acceptance and staff arrivals/departures at the facility in the AM and PM Peak Periods (from 07:00-09:00 and 16:00-18:00 respectively) in order to minimise the impact on the N28 road network in the Ringaskiddy area during these times and instead to avail of the prevailing carrying capacity on the road network outside of these times. By scheduling the morning construction peak hour to coincide with the lower traffic flows between 06:00 - 07:00, the higher traffic flows which occur later are avoided, and there is therefore no resultant impact on the local road network during the morning and evening peak periods.

The proposed development will accept waste for 50 weeks per year, for 5.5 days per week and 14 hours per day (from 06:00-20:00 and 09:00 to 14:00 on Saturdays). In order to minimise the impact of operational traffic on the local road network during the morning and evening network peaks, it is proposed to control the arrivals and departures of waste delivery vehicles to and from the site during the two-hour network peak period in the morning (07:00-09:00) and the evening (16:00-18:00). The facility is expected to generate a total of 71 HGVs to the site over the course of the 14-hour day, i.e. a total of 142 two-way HGV movements over the entire day. It is planned to manage HGV movements to arrive to and/or depart from the facility outside of the Ringaskiddy morning and evening peak periods (07:00-09:00 and 16:00-18:00) by extending the hours that waste will be accepted at the facility. The number of HGV vehicles that arrive and depart during these peak times will be capped at 3 arrivals and 3 departures per hour. An opening time of 06:00 would be preferable in terms of delivering waste in the morning period ahead of the local peak period, whilst extending the opening hours to 20:00 also allows operators to avoid the evening peak period.

It is estimated that there will be a total of 306 operational vehicles over the course of the day. The morning, afternoon and evening peak levels of operational traffic is at 06:00-07:00, 14:00-15:00 and 18:00-19:00, respectively. These peak periods are outside of the general Ringaskiddy area road network peak periods, which are from 07:30-08:30 and 16:30-17:30, respectively.

A total of 63 staff will be employed on site once the facility is in operation. No employees will access the site during peak hours.

Regardless of whether or not the proposed development proceeds, there are ongoing capacity issues on the local road network at a number of key junctions, particularly at Shannon Park and Shanbally roundabouts. The majority of the issues at these junctions are associated with the morning and evening network peak periods (07:30-08:30 and 16:30-17:30), with the Shannon Park Roundabout also quite busy in the early portion of 18:00-19:00 period (although less so than the two periods mentioned above).

The proposed development has a moderate impact during the construction phase in the 18:00-19:00 evening period. This impact is temporary in nature as it is associated with construction activity at the site. Post opening, the facility has minimal impact on the local road network.

Indaver has prepared a Mobility Management Plan (MMP) for staff employed at the facility, which is intended to reduce the amount of single-occupancy car trips to and from the site. Note that for the purpose of this assessment, no reductions in single-occupancy car trips have been assumed to result from the implementation of the mobility management plan.

This MMP will be reviewed and revised on an annual basis. The review will comprise the undertaking of staff travel-to-work surveys and the review of targets set in the MMP. In the longer term, this MMP will remain part of company policy in order to ensure that the longer term capacity of the N28 and upgraded M28 are still considered.

In addition, there will be a HGV booking system put in place which is based on a similar system already successfully operating in the Indaver facility in Meath. This will optimise the volume of HGV traffic on the road network over the whole day, such that the impact of the traffic arising from the proposed development will be minimised during peak periods.

This system will include a dedicated Waste Planner who manages the SAP delivery booking system, control of gate operations at the site entrance, extended operating hours to allow customers to avoid the morning and evening peak periods on the local road network, and a web-text service to disseminate information to customers. This will optimise the volume of waste delivery HGV traffic travelling to and from the site on the road network over the course of the whole day, allowing for traffic arrivals to be controlled and scheduled during peak periods.

The above measures will allow Indaver to control the arrival and departure of HGVs in the 07:00-09:00 and 16:00-18:00 peak periods and reduce HGV trips to and from the proposed development during these times to a minimal level.

This system is set out in Section 7.11.3 of the EIS.

Indaver already employ a dedicated Waste Planner for its Meath facility who maintains communications with customers as part of their role; Indaver also already uses a web-text service for the Meath facility, to disseminate general announcements. Indaver proposes to have a dedicated Waste Planner and associated communications tools including a web-text service in Cork to allow hauliers and other customers to communicate with the Indaver Waste Planning Department quickly and efficiently regarding operations at the facility and prevailing road and traffic conditions.

The booking system allows Indaver to keep records of all arrivals and departures at the facility, and can generate records for review by the local authority in order to demonstrate the efficacy of the proposed Mobility Management Plan, including arrival, entry and departure times, turnaround times and longer-term delivery trends.

#### **6.4.5 Noise**

During the various key activities proposed as part of this development, construction activities can be undertaken within the proposed noise criteria at the nearest sensitive buildings. During out-of-hours construction periods, or other construction scenarios with high potential for noise and vibration generating activities best practice noise vibration control measures will be employed by the contractor in order to avoid significant impacts at the nearest



sensitive buildings. Noise control measures that will be considered include the selection of quiet plant, enclosures and screens around noise sources, limiting the hours of work and noise and vibration monitoring.

The noise impact from construction activities at the closest area of the Cork Harbour SPA is insignificant.

From an operational perspective, practicable noise control measures will be employed to ensure that noise from process and building services plant do not exceed the operational noise levels. In addition the inclusion of an acoustic attenuators to the aero condenser structure will be required. Furthermore, noise control techniques will be employed as standard to ensure operational plant noise levels are kept to a minimum include:

- plant will be sited as far away from noise-sensitive locations as is practicable;
- duct mounted attenuators will be installed on the atmosphere side of all air moving plant;
- splitter attenuators will be installed providing free ventilation to internal plant areas;
- anti-vibration mounts will be installed on all reciprocating plant

The proposed development has been assessed against the strict and more onerous 'low background noise' criteria adopted at residential properties during its operational phase. The assessment has concluded that due to the distance between the proposed development and the nearest sensitive buildings, the proposed site layout and the recommended noise mitigation measures, the facility can operate within the adopted day, evening and night-time noise limit values.

The overall noise and vibration impact from the operation of the proposed facility is expected to be long term, not significant taking account of the existing noise environment and the predicted impact of the proposal.

#### **6.4.6 Landscape and Visual Impact**

Cork Harbour is a complex and diverse landscape comprising natural and built elements as well as historic and more contemporary interventions. The proposed development site lies within the 'Cork City and Harbour' broad Landscape Character Type as defined within the Cork County Development Plan 2014 - 2020. A number of roads surrounding the harbour are designated scenic routes within this Cork County Development Plan. Several of these areas and routes receive views towards the site. The harbour is designated as an area of 'National Tourism Significance' by Fáilte Ireland.

Due to the scale of the proposed development it will be visible from a wide number of locations with varying sensitivities to change in the visual environment. These include areas of settlement, routes used for walking, cycling and driving, historic structures, recreational and working areas. The stack and top of the main process building will be higher than the Ringaskiddy ridge which varies in height from 10m to c. 45m above Ordnance Datum. A steam plume emission may be visible from the stack. The degree of visibility will vary greatly depending on climatic factors, including temperature and wind speed both of which will affect density and dispersion.

To mitigate the visual impacts, the form, height, positioning and cladding of the proposed main process building has been carefully chosen to reflect the shape of the existing natural ridgeline, and to sit within it. The narrowest part of the building has been aligned to face and minimise visual impact on views from Ringaskiddy Martello tower. The varying heights of the roof are at minimum heights to house the internal machinery. The cladding materials have been chosen to reflect the existing shades and tones apparent in the area. Many shapes, heights and colour ranges were tested using a 3D model and photomontages. The varying dark and mid tone green colours visually recede the buildings against the landform. The breaking down of the facades and roofline also helped to reduce the overall appearance of scale of the building.

The other buildings will be of relatively small scale and are placed behind the larger buildings or landscaped mounding where possible which will reduce their visual impact significantly. These buildings will be clad in a similar colour and material where they may be visible. Although closer to the road, due to the scale, these buildings will not be as visible as the larger main process building in longer range views.

The overall strategy for the landscape planting proposals throughout the site is to utilise and emulate the species that are already present on the site and environs of Cork Harbour. Retaining as much vegetation as possible and

also planting with the same native species as found in the local area will blend the site visually with the surrounding established vegetation particularly when viewed from a distance.

Along the northern boundary, the direction where most views of the site are from, the planting shall be dense mixed deciduous and evergreen planting on the earth mounds, using a range of age and sizes of tree, up to semi mature to provide some instant screening effect. The planting shall have a high percentage of the evergreen species for year round screening in particular pine which is found throughout the area. The mounds will be planted with native woodland and over time as this establishes and grows in height the building will become even less visible. The planting will be organised in a structured 'campus' style landscape reflecting the evolving change of the nearby NMCI, Beaufort, IMERC and Haulbowline campuses.

A native grassland/scrub habitat will be maintained along the proposed public amenity walkway and viewing area. Between the footpath and site, a mixture of native scrub and taller oak and pine woodland will be planted to assist in screening close range views of the development from the walkway. The existing hedgerow along the southern boundary will be retained and augmented with additional native planting.

During construction, the excavations and changes to existing ground levels will be quite noticeable in views of the site from the east, north and west, particularly in the immediate site environs, leading to negative impact on views of the site from the east, north and west.

There will be a significant change in the appearance of the site, from the existing undeveloped site to that of an industrial and energy related campus, which is consistent with the emerging development of the lower harbour. As the woodland planting to the perimeter of the site establishes (after 5-10 years) the screening will increase and the character from the closest adjacent areas will appear as a more green area although the top of the building will be visible above the mounding and planting.

From further away, the planting and mounding will have little effect. Initial impacts will be significant and negative on the adjacent local landscape, but as planting matures, these will become slight to moderate and neutral. Impacts on the landscape character of the greater Cork Harbour Area will be slight to moderate and neutral due to the existing mix of industrial elements within the area of the proposed development.

There will be lighting impacts at night-time from the lights on the stack and site lighting. Although light will be introduced into a predominantly dark headland from the majority of viewpoints, the lights will appear to merge with the existing lights at Cobh, Haulbowline the Port of Cork or the Maritime College dependant on the direction of view.

The lower harbour area is currently and will continue to undergo process of change in its landscape character in the short, medium and long term with the other proposed developments in the area including the N28 road upgrade, redevelopment of the Ringaskiddy port, development of the IMERC campus, Haulbowline and Spike Islands and continued development of other industrial, renewable energy and pharmaceutical projects in the lower harbour area.

The cumulative impact of these developments on the landscape character will be negative in the short term but is deemed to be positive in the medium to long term once operational as the area transitions from an a semi-industrial area, to a more developed, campus style landscape incorporating industry, energy and education. The proposed development will be seen as an extension of this landscape. Overall the greater surrounding area is capable of absorbing the development without changing the character of the Cork City and Harbour Landscape Character Type as defined in the Cork County Development Plan.

#### **6.4.7 Biodiversity**

In relation to biodiversity, the EIS concludes that emissions from the facility are predicted to have a negligible impact on marine ecology or on important bird populations within Cork Harbour. No significant collision risk has been identified. There will be direct removal of habitat including scrub and remnants of semi-natural grassland, however hedgerows and areas of semi-natural vegetation outside the proposed development area will be retained and the biodiversity value of intensive grassland in the northwest corner of the site will be significantly increased.

No significant long-term impact on mammals will occur. No significant cumulative impacts have been identified. The impact on designated sites is predicted to be negligible.

## **6.5 Community Gain**

Indaver supports the provision of community gain. A community gain scheme has been in successful operation in the Indaver facility in Meath for several years, and it has supported such projects as new footpaths, lighting, school extension, recreational projects, cultural projects and environmental improvements.

The Meath model of community gain is a contribution of €1.27 per tonne of waste treated. A Liaison Committee was set up to administer the fund and it consists of two representatives from the local residents association, two local area councillors, two members of Indaver and two members of the local authority, who also act as administrators of the fund. All applications for funding from the Community Gain Fund are assessed against a set criteria which takes into account proximity to the site and whether a project is of environmental and community gain.

The administration of the Meath Community Gain Fund is straightforward and transparent and easily understood by Committee members. Indaver would suggest the Meath model for the Ringaskiddy project.

## **6.6 Consultation**

In addition to meetings with statutory consultees, including in particular the NPWS, the Southern Region Waste Management Office, the Planning, Roads, Architects, Archaeology and Conservation, and Environment Departments of Cork County Council, and pre-application meetings with An Bord Pleanála, Indaver has held a series of public engagement days and individual consultations in the Ringaskiddy area since May, 2015. The content of the application documentation has been informed by feedback from these consultations.

## **6.7 Property Valuation**

An assessment has been undertaken by DTZ Sherry FitzGerald, on the impact on local residential values in Ringaskiddy, Shanbally, Carrigaline, Monkstown and Cobh arising from the proposed development.

This report, which is attached at Appendix 1 to this planning report, states that:

- Ringaskiddy and Cobh are areas with low demand for Residential acquisitions;
- At these levels of values it would not be viable to consider the development of new market lead residential development;
- That notwithstanding the attractive aspect of the Lower Harbour, it is however an established location for large industrial style uses; and
- That Ringaskiddy has an image in the market place that is primarily associated with Industry and Port related uses.

The property report states an incinerator has been mooted for the Ringaskiddy area in excess of 14 years. It also states that there is market perception and expectation that an incinerator will locate Ringaskiddy. Accordingly, the ambient market values at July 2015, based on recent sales, is a reflection of the market judgement of each location based on its image and perceptions within the market place. Most likely the established image perception for the Ringaskiddy area is dominated by the existing industrial/port uses with a market expectation that it will probably grow considerably into the future. The National Maritime College of Ireland (NMCI) and the neighbour IMERC building are higher value uses at Ringaskiddy. However the image of Ringaskiddy, in the market place still remains industrial in character. The existing market values would already take into account this future expectation. Accordingly, an incinerator use will not, in itself, cause any impact on market values.

Notwithstanding the existing residential values within Ringaskiddy, there is expectation within the local communities (e.g. Carrigaline – Cobh) that Ringaskiddy will continue to grow particularly for port and industrial style uses. Current market values already reflect these market expectations and perceptions. Also, in these local communities, associated with the industrial style uses there is an expectation that an incinerator of scale will locate to Ringaskiddy.

## **7. Conclusion**

Having regard to the provisions of:

- the National Development Plan 2007-2013 in relation to waste management
- the National Spatial Strategy 2002
- A Resource Opportunity – Waste Management Policy in Ireland, July 2012
- National Hazardous Waste Management Plan, 2014-2020
- the Southern Region Waste Management Plan 2015-2021
- the South-West Regional Planning Guidelines 2010-2022
- the Cork County Development Plan 2014-2020
- the Carrigaline Electoral Area Local Area Plan 2015; and
- the location of the site in an industrial area which is a Strategic Employment Area where large scale waste facilities can be considered, and its proximity to a national transport network.

it is the conclusion of this report that the proposed development would be in compliance with national, regional and local waste management and planning policies, would not seriously injure the amenities of the area or of property in the vicinity, would not be prejudicial to public health, would be acceptable in terms of traffic safety and convenience and would, therefore, be in accordance with the proper planning and sustainable development of the area.

**Appendix 1**  
**Property Report**

# **REPORT**

## **Re: Impact on Property Values related to the Indaver Proposal at Ringaskiddy, Co Cork**

**Date:** 4<sup>th</sup> August 2015

**Prepared by:** Frank Ryan,  
DTZ Sherry FitzGerald,  
No. 6 Lapp's Quay,  
Cork

## **Expert Witness**

- Frank P. Ryan
- M. Comm (Housing Policy)
- F.R.I.C.S – (Chartered Surveyor)
- 38 years post qualification experience
- Senior Director – DTZ Sherry FitzGerald, Cork
- 35 years local Cork market experience

## **Introduction**

This Report will examine the impact on local Residential values arising from the current application by Indaver Ireland Ltd in respect of their Ringaskiddy site.

Indaver Ireland proposed to apply to An Bord Pleanala for permission to construct a Resource Recovery Centre at Ringaskiddy. The 'Centre' will include a waste to energy plant, also called an Incinerator.

The Report will assume a permission will be forthcoming, subject to reasonable conditions.

DTZ Sherry FitzGerald were instructed to evaluate the likely impact, of the proposed development, on residential property values in the subject area. The following locations are considered:

**(1)** Ringaskiddy

**(2)** Shanbally

**(3)** Carrigaline

**(4)** Monkstown

**(5)** Cobh



## **Approach**

The approach adopted by this Report is to understand the ambient relevant variables that contribute to local property values, applicable to the study area, in advance of the Planning application. Equally, the intent is to understand any changes to these ambient relevant variables in the event of the grant of Planning Permission.

However, in consideration of the Planning application for the proposed development, this Report is primarily concerned with the 'Perception' of the intended use and the likely market reaction when the facility is operational. However, perceptions will remain important variables at all times. The normal, local Resident, would view a pending Incinerator use as an undesirable and unwanted development in their area. Primarily this arises because of the 'perceptions' associated with this user.

Understandably, local residents will seek to exclude an Incinerator from their area. This is an expected reaction particularly for any material Incinerator application. In the course of this instruction, the existing Meath waste to energy plant was visited. However, because of the importance of the perceptions, associated with a pending Incinerator – the actual operating style of a comparable plant is not particularly relevant.

## **Property Overview – Ringaskiddy Area**

For some 80 years, Ringaskiddy has been identified as the primary potential site for large Port operations. Since the 1970's large Industry and major Port operations have located to Ringaskiddy.

The character of the area is dominated by physically large Pharma Plants, on large sites – together with a sizeable Port of Cork operations, opposite the Village of Ringaskiddy. Ringaskiddy has an established image as an Industrial/Port area.

The existing Main Road N28 to Haulbowline (Irish Naval Service) passes through Ringaskiddy and overlooks the Port of Cork operations (100 + Acres). The residential community is primarily concentrated within the 'Village' area, on sloping lands behind the Main Road.

## **Market Commentary**

This document includes 4 No. Appendix.

<b>Appendix 1:</b>	➤ Ambient Residential Values at various locations (3 bed Semi-detached houses)
<b>Appendix 2:</b>	➤ List of Industry style uses within Cork Harbour
<b>Appendix 3:</b>	➤ List of Industry style uses within Ringaskiddy
<b>Appendix 4:</b>	➤ Current Town Planning status (prior to the current application) ➤ Details of the pending scheme

The following overall conclusions arise from the above data:

- (1) That Ringaskiddy and Cobh are areas with low demand for Residential acquisitions.
- (2) At these levels of values it would not be viable to consider the development of new market lead residential development.
- (3) That notwithstanding the attractive aspect of the Lower Harbour, it is however an established location for large Industrial style uses.
- (4) That Ringaskiddy has an image in the market place that is primarily associated with Industry and Port related uses.

### **Proposed Development:**

For in excess of 14 years an Incinerator has been mooted for the Ringaskiddy area. Actually, Indaver have owned their site for some 15 years. In the interim there have been various Applications and Hearings concerning the proposed Incinerator use.

Interestingly, there is market perception and expectation that an Incinerator will locate Ringaskiddy. Without Prejudice to the normal process, including a possible Oral Hearing with An Bord Pleanala, – the market has formed a view to expect the Incinerator use in the Ringaskiddy area.

Accordingly, the ambient market values at July 2015, based on recent sales, is a reflection of the market judgement of each location based on its image and perceptions within the market place.

Most likely the established image perception for the Ringaskiddy area is dominated by the existing Industrial/Port uses with a market expectation that it will probably grow considerably into the future.

The Maritime College and the neighbour IMERC building are higher value uses at Ringaskiddy. However the image of Ringaskiddy, in the market place still remains Industrial in character.

The existing market values would already take into account this future expectation. Accordingly the grant of Permission for an Incinerator use will not, in itself, cause any impact on market values.

Notwithstanding the existing residential values within Ringaskiddy, there is expectation within the local communities (eg Carrigaline – Cobh) that Ringaskiddy will continue to grow particularly for Port and Industrial Style uses. Current market values already reflect these market expectations and perceptions.

Also, in these local communities, associated with the Industry style uses there is an expectation that an Incinerator of scale will locate to Ringaskiddy.

### **Market Comparable:**

In Europe, based on the following examples, there is evidence that a modern Incinerator can be situated in proximity to existing residential areas, without material impact on the residential amenities. Accordingly, an operational plant may coexist with a neighbour community, if operated to quality governance standards.

#### **(1) Vienna:**

- Spitellau Plant (1970)
- Within prime Office/Residential district

#### **(2) Copenhagen**

- Vestforbranding Plant (1970)
- Housing (300 m from the plant)

#### **(3) Copenhagen**

- Norforbranding Plant (1969)
- Housing (100 m – from the plant)

#### **(4) Meath**

- Duleek (c. 5 km from Drogheda)
- Neighbour 'one off' housing + Duleek Village at 1 km

It is understandable that a community, because of feared or anticipated impacts, will object to an Incinerator in its area. This is particularly relevant to a 'green field' location. However, the Ringaskiddy application is within a strong Industrial location and recent decisions by Cork County Council/Bord Pleanala, cater for a rapid expansion of Industrial/Port related uses at Ringaskiddy.

## **Conclusion:**

- (1)** Ringaskiddy has an established image for Industry and Port related uses
- (2)** Recent Planning decisions envisage a major expansion of these style of uses.
- (3)** Because of the historic pattern of Applications/Hearings, in respect of the 'Indaver' site, there is a market expectation that an Incinerator of scale will locate to the property.
- (4)** Current residential property values for Ringaskiddy and for local communities already acknowledge the above variables (1,2,3).
- (5)** Accordingly, the application, or its approval will not have any material, or significant impact, on Residential values.
- (6)** This Report will contend that negligible impact, if any, will arise because of this application and its outcome.

## **Appendix: 1**

### **Introduction**

This Appendix represents the ambient value for a standard three bedroom house as various locations.

### **(3 Bed Semi Detached Houses)**

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**Date:** 09/07/2015

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Ringaskiddy:	€150,000
Shanbally:	€190,000
Carrigaline:	€245,000
Cobh:	€160,000

### **Observations:**

In the above style locations, new Residential Estate development is only viable with value of €180,000, or greater.

Accordingly, areas that exhibit a market price below this level probably reflect low market demand levels, for existing housing stock in the area.

Ringaskiddy is an acknowledged low value location.

## **Appendix: 2**

### **Introduction:**

The purpose of this Appendix is to detail the range of Large Industry Style uses that are located in the Lower Harbour Area

## **Property Overview – Cork Harbour**

**Date:** 14/07/2015

<b>Property</b>	<b>Status</b>	<b>Observations</b>
Crematorium	Operating Business beside Ringaskiddy	In active use - business expanding
Haulbowline	(1) Former Irish Steel Plant Demolished – future development pending	Master Plan stage
Haulbowline	Irish Naval Service	In active use
Cork Dockyard (Rushbrook)	Mixed employment uses including Ship repair and metal recycling	In active use
Marino Point	Former IFI Plant for sale	Likely Port related future user. Sale pending
Hills Passage	Private port ‘operations’	In active use
Aghada	Electricity Generating Stations (x2)	In active use
Whitegate	Irish Refining – Oil Refining (Phillips 66)	Possible expansion for sale

### **General:**

The remediation of Haulbowline East is in hand and a Master Plan is envisaged for this area and Spike Island.

## Appendix 3

### Introduction:

This Appendix lists the large Industry style uses already located in Ringaskiddy

## Property Overview – Ringaskiddy, Co Cork

Date: 09/07/2015

Property	Status	Observations
Indaver already have a Waste Licence for an Incinerator	New application pending	No significant change
Maritime Research Centre (IMERC) -Including Maritime College and Beaufort Laboratory	In development	Government policy to encourage further development
Hammond Lane – Metal recovery business	Active neighbour use	
Port of Cork Deep Water Jetty Expansion	Planning granted	Probably complete by 2020
Port of Cork Container Facility	Planning granted	Probably operational by 2020
Transport Infrastructure Ireland	Ambition to have HGV Service Centre at Port of Cork	Future application
Ancillary Port Business	Allied with the relocation of the Container Facility and with additional Deep Water Jetty Business – existing ancillary Businesses will relocate to Ringaskiddy – from Tivoli and Cork City	Impacting from 2018 +
FDI – Pharma Plant	Substantial wind turbine – new development	Strong visual identity – Already in situ.

### Note

\* IDA own substantial land banks at Ringaskiddy that are zoned for Industry and large Industry Style use.

\* There are a range of substantial 'Pharma' plants located at Ringaskiddy.



## **Appendix 4**

### **➤ Current Status – Indaver Site, Ringaskiddy (prior to the current Planning application)**

#### **➤ Proposed Scheme**

### **CURRENT STATUS:**

#### **(1) EPA Status:**

- Valid Licence (EPA) – WO0186 – 01
- Licence to treat municipal, commercial, industrial, hazardous and non-hazardous waste
- Valid until November 2015
- Capacity: 200,000 tons p.a.

#### **(2) Town Planning:**

- There is no planning permission for the current site
- There area is zoned for industrial use
- The Development Plan allows for large scale ‘waste to energy’ facilities in Strategic Employment Areas. Ringaskiddy is a Strategic employment Area.

### **Pending Application:**

- Site Area: 12 hectares
- Building Area: <9600 m<sup>2</sup> for waste to energy site, excluding admin building
- Equivalent Building Height: see diagram attached of profile of building
- Car Parking: 59
- Traffic Movements:
  - HGV: 80 per day
  - CAR : 73 per day
  - Both traffic movements will be subject to agreement with the council on mobility plans
- Hours of Operation: deliveries from 6am to 8pm, operational 24 hours per day
- Use: facility to incinerate up to 240,000 tonnes of residual waste and recovery energy
- Construction Period: 2 and half years