2 Policy and Planning Framework and Need for the Scheme

2.1 Introduction

This section of the EIS sets out the European Union (EU), national, regional and local waste policy and planning policy framework which underpins the proposed development. The chapter demonstrates the specific need for the proposed development in the context of the waste policy and planning policy framework.

In summary, a review of waste, energy and climate policy at a European and national level shows that the Ringaskiddy Resource Recovery Centre could make a significant contribution toward:

- providing thermal recovery capacity for non-hazardous residual waste (300,000 tpa), industrial waste and hazardous waste (50,000tpa) as identified in the regional waste plans
- self-sufficiency in waste treatment within the State and reducing exports of hazardous waste and non-hazardous residual municipal waste
- diverting residual waste away from landfill, and recovering energy from it in line with the EU's Circular Economy objectives and the Waste Framework Directive
- recycling targets, by extracting ferrous and non-ferrous metals from bottom ash
- sustainable, secure and competitive energy generation in line with energy policy objectives
- reducing greenhouse gas emissions from waste management by diverting biodegradable waste away from landfill, and recovering renewable energy from it
- delivering infrastructure of strategic importance with private sector investment
- ensuring national competitiveness and balanced regional development
- strengthening the Cork gateway

An assessment of waste data and Regional Waste Plans in Section 2.5 finds that approximately 707,800 tonnes per annum of residual hazardous, municipal and industrial waste would be suitable for thermal recovery. This represents the theoretical amount of residual waste potentially available for thermal recovery.

Of the 707,800 tonnes, 350,000 tonnes residual hazardous and municipal waste is identified as requiring thermal treatment in the Southern Region Waste Management Plan ("SRWMP")[1] and 325,730 tonnes represents industrial waste[2].

The capacity of the proposed Ringaskiddy Resource Recovery Centre is 240,000 tonnes per annum (including up to 24,000 tonnes per annum suitable hazardous waste), which would satisfy the majority of the municipal and hazardous waste

[1] An additional 32,000 tonnes hazardous waste has been identified as potentially requiring treatment
[2] Based on industrial waste arising in 2012 as outlined in Regional Waste Plans

treatment requirements (350,000 tonnes per annum), as identified in the SRWMP.

Furthermore, there is a lack of suitable recovery capacity within the Southern Waste Region while a large quantity of residual MSW is being exported for recovery in similar facilities in continental Europe. In order to tackle this deficit and to establish a better regional balance, thermal recovery capacity should be developed outside the Eastern-Midlands region (where currently all active and pending facilities are located).

2.2 Waste Policy

2.2.1 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. These key EU policy and legislative documents are set out below.

2.2.1.1 7th Environmental Action Programme 2013

The 7th *Environmental Action Programme* ("7th 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.

This document oversees the implementation of environmental policy for Member States until 2020. It builds on a vision for 2050 that is set out as follows:

> *"In 2050, we live well, within the planet's ecological limits. Our prosperity and healthy environment stem from an innovative, circular economy where nothing is wasted and where natural resources are managed sustainably, and biodiversity is protected, valued and restored in ways that enhance our society's resilience. Our low-carbon growth has long been decoupled from resource use, setting the pace for a safe and sustainable global society."*

In line with these objectives, 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 is now working on a new and more ambitious 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).

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.

The EU proposed framework for the delivery of a circular economy was published on the 2nd December 2015. However, 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.

The proposed Ringaskiddy Resource Recovery Centre will support the 7th EAP and Circular Economy 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.

2.2.1.2 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]) and, for ease of reference, is demonstrated in **Figure 2.1**.

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[3].

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.

The proposed Ringaskiddy Resource Recovery Centre will be designed to meet the R1 efficiency criteria. The waste activity proposed to be carried out will therefore be classified as a recovery operation. The proposed Ringaskiddy facility will therefore help to move waste treatment away from landfill disposal to a higher tier of the waste hierarchy. This aligns with the objectives of the WFD.

2.2.1.3 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 roadmap (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."*

The proposed Ringaskiddy Resource Recovery Centre will contribute towards the reduction of landfill within Ireland, treating non-recyclable waste while supporting high quality recycling.

[3] This R1 classification covers all types of waste acceptable at the MSWI plant as defined in IPPC and WID

2.2.2 National Waste Policy

2.2.2.1 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[4] in this policy document as set out below:

- *"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 bins5.*
- *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[6] 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[7]. 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[8] 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. The three waste regions are shown in **Figure 2.3**.

[4] Refer to Section 1 – Introduction of A Resource Opportunity. Waste Management Policy in Ireland' (2012).
[5] See below text on recovery for what the strategy considers to be "appropriate treatment of mixed municipal waste"
[6] Refer to Section 3 – Planning for the Future of *A Resource Opportunity. Waste Management Policy in Ireland'* (2012).
[7] 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.
[8] Refer to Section 3 – Planning for the Future of *A Resource Opportunity. Waste Management Policy in Ireland'* (2012).

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[9].

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;*
> - *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.

The proposed Ringaskiddy Resource Recovery Centre will 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

[9] Refer to Section 9 – Recovery of A Resource Opportunity. Waste Management Policy in Ireland' (2012).

identified in regional waste plans as well as complying with the EPA pre-treatment guidance for the mechanical treatment of bottom ash.

2.2.2.2 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.

In this context, the proposed Ringaskiddy Resource Recovery Centre will help to address the deficit in thermal treatment capacity in Ireland for suitable 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 line with sustainable land-use planning goals, the proposed facility will co-locate hazardous waste treatment with residual municipal waste treatment. Furthermore, it will represent a significant private sector investment in hazardous waste infrastructure, which is clearly identified as necessary in order to deliver hazardous waste infrastructure within the State.

2.2.3 Regional Waste Policy

2.2.3.1 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 & County Council, Tipperary County Council, Waterford City and County Council and Wexford County Council. The region has a population of 1,541,439.

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 driving 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 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, and
- 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[10]) 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. These are described in more detail in **Chapter 3 *Alternatives*** of this EIS*.*

Importantly, the SRWMP identifies the importance of energy recovery and notes that 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

[10] Includes the Dublin WtE facility, the permitted pyrolysis facility in Tullamore and the planned increase in cement kiln capacity – see Table 16-7 of the Plan.

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 Plans 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.

The proposed Ringaskiddy Resource Recovery Centre is a private sector development, which will provide national thermal recovery capacity for the treatment of non-hazardous wastes in accordance with policy Objective E15a and E15b of the SRWMP. With a focus on material and energy resource recovery, the proposed facility will also contribute to the plan's strategic aim of moving toward a green circular economy. Finally, the Ringaskiddy Resource Recovery Centre will provide national thermal recovery capacity for suitable hazardous wastes in accordance with policy Objective E16 of the Plan.

2.3 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[11] will be generated from the biodegradable fraction of industrial and municipal waste and is therefore considered to be energy from renewable sources. Waste is also an indigenous energy resource.

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

2.3.1 European Energy Policy

Europe's energy policies are driven by three main objectives including[12]:

- 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.

[11] Based on experience at the Meath waste to energy facility, the fraction of electricity generated from renewable sources is estimated to be approximately 50%.
[12] Refer to overview of EC energy strategy at https://ec.europa.eu/energy/en/topics/energy-strategy

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

- 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 WtE processes, consider emerging technologies in WtE, 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 its importance 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.

2.3.1.1 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.

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.

2.3.2 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.

Ireland's Energy Policy Framework is currently being reviewed to reflect on what has been achieved and to reorient Irish energy policy priorities towards the 2030 horizon.

In this context, and following extensive consultation on the Green Paper on Energy Policy in Ireland (Department of Communications, Energy and Natural Resources (2014), it is expected that the upcoming White Paper[13] (replacing the *Energy Policy Framework 2007-2020*) will aim to provide a vision for sustainable energy in Ireland into the future. This is set against the context of an economy that remains largely reliant on imported oil and gas for its energy, with peat, coal and renewables, including that recovered from bioenergy and waste, contributing to a lesser extent.

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 National Strategy on Biodegradable Waste intent 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.

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.

2.3.2.1 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

[13] The public consultation process on the Green Paper will lead to the development an Energy White Paper for Ireland

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.

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.

2.4 Planning Policy

2.4.1 National Policy

2.4.1.1 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.

Consistent with the NDP, 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.

2.4.1.2 National Spatial Strategy (NSS) 2002-2020

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

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 NSS for balanced regional development and effective waste management structures.

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.

2.4.1.3 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.

2.4.2 Regional Planning Policy

2.4.2.1 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.

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.

2.4.3 Local Planning Policy

This section sets out the principle policies of the Cork County Development Plan 2014-2020 and the current Carrigaline Electoral Area Local Area Plan 2011 against which the proposed development is to be assessed.

2.4.3.1 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.*
- *Support the sustainable development of the Bottlehill facility for specialised and appropriate uses primarily associated with integrated waste management. The specialised and associated role of Bottlehill in the provision of waste management activities is therefore clearly identified in local planning policy, whereas the policy for large scale waste infrastructure is that their preferred location is in industrial areas that are also Strategic Employment Areas.*

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**[14] 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

[14] 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 4th March, 2015

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:

> *"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. Refer to **Chapter 11 *Landscape and Visual Impact Assessment*** of this EIS, for a full assessment of the potential impact of the proposed development on the landscape and scenic routes in the vicinity.

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. The proposed development will contribute to a diversity in energy generation in line with policy ED 1-1. 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. 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 Special Area of Conservation, in line with objective EE 6-2.

It should be noted that the proposed coastal protection works in this instance will involve soft engineering techniques (placement of shingle above foreshore), consistent with policy objective RCI 9-3 of the Plan 2014.

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 will enhance the provision of tourist facilities in the area by the amenity walkway including viewing point. The views from Martello Tower to Fort Mitchell on Spike Island will not be impacted by the proposed development. The dedicated viewing point will enable tourists to appreciate the natural, built and cultural heritage of Cork Harbour.

Consistent with the policy provisions for this High Value Landscape, the proposed development has been carefully designed 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 strategic industrial role.

4.3.2.2 Carrigaline Electoral Area Local Area Plan 2015

The Carrigaline Electoral Area Local Area Plan 2015 (2nd 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. Refer to **Figure 2.3**, which shows the land use

zoning map from the Carrigaline Electoral Area Local Area Plan. 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 **Chapter 12 *Biodiversity*** of this 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. Refer to **Chapter 11 *Landscape and Visual*** of this EIS for further details on landscaping.

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 and is presented in **Appendix 13.4 *Flood Risk Assessment***. Refer also to **Chapter 13 *Soils, Geology, Hydrogeology, Hydrology and Coastal Recession*** of this EIS. The proposed development site is not identified on the Local Area Plan as an area susceptible to flooding (Flood Zones A or B), refer to **Figure 2.4**.

The Local Area Plan is to be reviewed in 2015 following the adoption of the Cork County Development Plan in December, 2014.

The proposed Ringaskiddy Resource Recovery Centre is located on part of the I-15 zoned 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. The Ringaskiddy Resource Recovery Centre proposal has been developed in order to conform to these objectives in full. The proposed development will involve a large stand-alone industrial use, and an appropriate buffer and high quality landscaping is incorporated into the site layout. The proposed development will be the subject of EIA and Appropriate Assessment to be carried out by the competent authorities. It is worth noting that the site is classified as “Flood Zone C” according to the OPW Planning Guidelines (2009)[15]

[15] Flood Zones are geographical areas within which the likelihood of flooding is in a particular range. There are three types of flood zones defined in the OPW Planning Guidelines (2009): A, B & C. The Indaver site is located in *Flood Zone C* which is defined as “Probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding)”

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.

2.5 Need for the Proposed Development

2.5.1 Introduction

This section outlines the need for the proposed development in order to deliver thermal recovery capacity to manage residual hazardous and non-hazardous waste generated in the Southern Region and at a national level. The quantities of the different waste streams, which will require thermal treatment, are addressed. The proposed Ringaskiddy Resource Recovery Centre will be designed to meet this need.

2.5.2 Hazardous Waste Thermal Treatment Capacity Required

2.5.2.1 Reported Hazardous Waste

The EPA National Waste Report 2012 (EPA 2014) provides information on waste generation and management in 2012 including hazardous waste statistics. This report provides the most recent data available on hazardous waste management in Ireland at the time of writing. The data available on hazardous waste generation and treatment is set out in Table 2.1 below.

Table 2.1 Hazardous Waste Management in 2012

	Proportion managed in 2012	**Tonnes managed 2012**	**Typical treatment type**
On-site treatment at integrated pollution prevention and control facilities	22%	68,100	Incineration, solvent recycling, landfill and use as fuel
Off-site treatment at authorised facilities in Ireland	30%	67,866 [16]	Authorised hazardous waste treatment facilities (e.g. autoclaving, physic-chemical treatment)
Export to disposal and recovery facilities abroad	48%	139,872	Thermal treatment (of which 35,568 for incineration and 31,405 for use as fuel), as well as metal recovery, solvent recovery and landfill
Total	100%	275,838 [17]	

[16] Note this figure is shown in the waste report as 88,866 tonnes but this includes approximately 21,000 of waste that is pre-treated off-site in Ireland prior to export, which represents double counting as explained below.
[17] Data provided in EPA National Waste Report 2012 includes double counting as noted in the footnote to Table 22 which states "*some hazardous waste treated in the state is exported for further treatment*". The amount of waste treated off-site in Ireland and also exported (e.g. from TFS data) is estimated 21,000 (as confirmed by the EPA to Indaver). This is subtracted from the total of **Table 2.1** above to get a more accurate figure and avoid double counting

The long term trend in hazardous waste generation reflects economic development but is generally stable. The quantity of hazardous waste generated in 2012 was approximately 275,838[18] tonnes. This represents a reduction in the amount of hazardous waste treated in Ireland of 6%[19] and a reduction in the amount of hazardous waste exported by 6% from 2011[20] largely related to a decline in construction and demolition waste.

However, the quantities of hazardous waste exported for treatment has remained relatively steady over the four years considered in **Figure 2.2**, ranging from a high of 150,395 tonnes in 2009 to a low of 143,180 tonnes in 2010. Based on EPA waste data[21], exports to disposal facilities for incineration (D10) have remained between 30,000 and 40,000 tonnes per year since 2007, down from a peak of 47,800 tonnes approx. in 2006. In addition, the amount of hazardous waste exported for energy recovery (R1) in 2012 was 20,464 tonnes.

As noted previously in this EIS, in order to reduce the level of these exports and improve self-sufficiency, the SRWMP supports the development of 50,000tpa thermal recovery capacity for hazardous waste nationally in **Objective E16.**

2.5.2.3 Unreported Hazardous Waste

The NHWMP notes that an amount of hazardous waste remains 'unreported'. That is, it is not recorded as having entered the formal waste management industry.

The NHWMP estimates that unreported waste was 26,024 tonnes of hazardous waste in 2011. The source of this waste is primarily small business, households and farms. One aim of the NHWMP 2014-2020 is to channel this waste into appropriate hazardous waste treatment facilities. Due to the small volumes arising per waste generator, this waste would need to be bulked up at a transfer station before being sent for disposal or recovery.

2.5.2.4 All Island Solution to Hazardous Waste

Economies of scale and the potentially erratic nature of hazardous waste markets mean that it is essential that all island markets are available. To achieve economies of scale the NHWMP suggests full opening of the Northern Ireland and Republic of Ireland waste markets, recognising that some companies are already operating on this basis. In relation to incineration capacity, the NHWMP 2014-2020 also states that,

> *'… it is still possible for all-island incineration and physico-chemical treatment capacity to be planned for and taken into consideration by treatment operators'.*

The latest data on hazardous waste arising in Northern Ireland is provided in the Arc21 region *Waste Management Plan* (October 2014). This finds that in 2010/11 approximately 75,400 tonnes hazardous waste was generated in Northern

[18] Data provided in EPA National Waste Report 2012 includes double counting as noted in the footnote to Table 22 which states "*some hazardous waste treated in the state is exported for further treatment*". The amount of waste treated off-site in Ireland and also exported (e.g. from TFS data) is estimated 21,000. This is subtracted from the total of **Table 2.1** above to get a more accurate figure and avoid double counting
[19] 166,629 tonnes were treated in Ireland in 2011 (including double counted pre-treatment) compared with 156,966 tonnes in 2012
[20] 149,037 tonnes were exported in 2011 compared with 139,872 tonnes in 2012
[21] See historical EPA National Waste Reports

Ireland of which approximately 6,050 tonnes was exported for energy recovery or incineration (R1, D10).

2.5.2.5 Capacity Required to Treat Hazardous Waste Streams

In summary the identified potential for thermal recovery of hazardous waste as outlined above is summarised in Table 2.2.

Table 2.2 Potential Capacity Required To Treat Hazardous Waste Streams

Source	Estimated tonnage	Notes
Hazardous waste	50,000 tonnes	Southern Region Waste Management Plan
Unreported hazardous waste	26,024 tonnes	Potential additional hazardous waste requiring treatment (NHWMP aims to channel this waste into appropriate hazardous waste treatment facilities)
Northern Ireland hazardous waste	6,050 tonnes	Material exported for R1 / D10 from Northern Ireland
Total	82,074 tonnes	Recognising not all of the unreported / Northern Ireland waste will be available, this figure represents the potential capacity required in total from all sources

The Indaver Meath waste-to-energy facility operating licence W0167-03 permits the treatment of 10,000tpa suitable hazardous waste. Therefore, there remains a gap of at least 40,000tpa thermal treatment capacity for hazardous waste treatment (based on the need identified in the SRWMP and excluding unreported or Northern Ireland waste).

By combining the management of non-hazardous residual municipal solid waste (MSW), industrial waste, and suitable hazardous waste on a single grate incineration line it will be possible to deliver a “technically, economically and environmentally feasible” treatment facility that will contribute to the self-sufficiency objectives outlined in **Policy E16** of the SRWMP.

2.5.3. Residual Municipal Waste Thermal Treatment Capacity Required

2.5.3.1 National thermal recovery capacity

All three regional waste plans, the Southern, Connaught-Ulster and Eastern-Midlands Plans, identify the national requirement for 300,000 tonnes thermal recovery capacity. This is set out in Objective E15a of the SRWMP as discussed in section 2.2.3 above.

The SEA Environmental Report on the SRWMP notes in Section 8.3.5.5 (Other Recovery) that:

- The Southern and Connaught-Ulster Regions have no active thermal recovery, and
- The Eastern-Midlands Region is the only region in the country to have thermal recovery treatment available with 5 active facilities authorised to

accept 435,000 tonnes MSW and a further 727,875 tonnes MSW capacity pending.

It finds that **Policy E15a** supports an additional 300,000 tonnes of thermal recovery capacity which is not specific to the Southern Region but rather is reflective of an identified national need. However, the report states that the fact that the Eastern-Midlands Region is currently the only waste region with thermal recovery capacity indicates a regional imbalance.

The Ringaskiddy Resource Recovery Centre, with its location in the southern region, will address this imbalance.

2.5.3.2 Export of Municipal Waste

The SRWMP refers to the growing export of residual MSW. Specifically from the Southern Region, Indaver exported just under 200,000 tonnes of residual MSW in 2014. This included 77,512 tonnes from Cork, 51,269 tonnes from Limerick and 29,028 tonnes from Waterford. As noted above, 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.

The Ringaskiddy Resource Recovery Centre, will provide indigenous thermal recovery capacity in line with the SRWMP that will help reduce exports and enable the State to become more self-sufficient.

2.5.3.3 Industrial Waste Streams

Non-hazardous industrial waste is waste produced by industrial activities such as factories, mills and mines (as defined in National Waste Reports available on the EPA website, the most recent being 2012). This does not include non-process industrial waste (e.g. from site canteen, office, etc.), which is similar in character to commercial waste and is generally categorised as municipal waste in the EPA waste reports.

The SRWMP in **Policy E15b** supports the need for thermal recovery capacity to be developed for industrial process wastes “where justifiable” at merchant thermal recovery facilities. There is no recommended tonnage capacity for this waste stream.

2.5.3.4 Industrial Waste Generation

Based on experience at the Indaver Meath waste-to-energy facility (which accepted 16,400 tonnes of non-hazardous industrial waste in 2014), it is anticipated that a range of non-hazardous industrial waste streams will be suitable for thermal recovery at the proposed Ringaskiddy facility.

The most recent statistics on industrial waste generation were published in the Regional Waste Plans and relate to waste collected in 2012. Combining data from the three Regional Plans, an estimated 5.16 million tonnes non-municipal[22] waste was collected nationally in 2012.

[22] See waste streams listed in regional plans under “priority waste streams” and “other wastes collected”

This includes a wide range of non-hazardous residues from manufacturing processes including various sludge, food and beverages unfit for consumption, textiles, printing waste, wood and paper waste, chemical products, pharmaceutical products, rubber and plastic products, non-combustible materials such as non-metallic mineral products, metals, and machinery, electrical and electronic waste, shredding waste (e.g. car shred, WEEE), construction and demolition waste, agricultural waste and others.

The estimated quantity of residual non-hazardous industrial waste that may be suitable for thermal recovery is up to 325,730 tonnes per annum, including the waste streams detailed in the Regional Waste Plans as follows:

- “industrial waste not otherwise specified (non-hazardous) “ totalling 312,943 tonnes collected in 2012 across the three regions and
- “industrial sludge” totalling 12,787 tonnes collected in 2012 across the three regions

While the nature of these waste streams is not specified, it is noted that in 2008 the EPA National Waste Report 2008 identified approximately 300,000 tonnes non-hazardous industrial waste as being suitable for thermal treatment. This included 67,000 tonnes sent for disposal via incineration (D10) and 230,509 tonnes sent for thermal recovery (R1). This does not capture the quantities of industrial waste currently sent to landfill that could otherwise be recovered.

In addition to industrial sludge, sludge from municipal wastewater treatment plants and the food and dairy industry may also require treatment. If alternative specialised infrastructure were not developed to treat this sludge, the Ringaskiddy Resource Recovery Centre would be suited to accepting these streams.

The volumes of municipal wastewater treatment plant sludge that may require treatment are not captured in the figures above. In the future these volumes may increase due to:

> Improvements to wastewater treatment as required under, *inter alia*, the Water Framework Directive 2000/60/EC.
>
> Changes in the policy on landspreading. The food industry has already taken steps to prohibit landspreading of raw or treated sewage/sludge on Bord Bia certified farms. This requirement also exists in all other Bord Bia quality assurance programmes. Various contaminants that may be present in sludge include, for example, heavy metals, Persistent Organic Pollutants (POPs), Environmental Persistent Pharmaceutical Pollutants (EPPP) and personal care products (Ternes *et al* (2004) (e.g. antibiotics, endocrine disrupting hormones). Incineration is the only technology providing effective sludge treatment, destroying organic contaminants and producing ash that is hygienic and safe.

The volumes and treatment method for sewage sludge are expected to be set out in the proposed National Sludge Plan, due to be developed at a national level by Irish Water.

2.5.4 Summary of Proposed Waste Quantities

Taking 2020 to be an indicative year for when the proposed development will be fully operational, the quantities of waste suitable for thermal treatment in the Cork region, identified in the previous sections, can be summarised as shown in **Table 2.3** below.

Table 2.3 Predicted Waste Quantities for 2020

Residual Waste Generation	Volumes suitable for Waste To Energy (tonnes)	Reference
Hazardous waste	Up to 82,074	Regional Waste Management Plans, National Hazardous Waste Management Plan 2014 – 2020, arc21 Waste Management Plan
Residual MSW	300,000	Southern Region Waste Management Plan
Industrial waste	Up to 325,730	Regional waste plans
Total waste stream potentially available for acceptance at proposed WTE facility	Up to 707,804	Hazardous, MSW, sludge, recovered fuel, industrial waste
WTE facility capacity	240,000	

The proposed Ringaskiddy Resource Recovery Centre, with a capacity of 240,000 tonnes for residual municipal, industrial and suitable hazardous waste, will contribute towards the attainment of the national requirement for thermal recovery capacity as set out in regional and national waste plans. By providing local thermal recovery capacity, the proposed Ringaskiddy Resource Recovery Centre will reduce reliance on waste exports by up to 240,000 tonnes per annum, whilst also maximising the use of energy resources in the residual waste stream.

2.5.5 Energy Recovery

The proposed Ringaskiddy Resource Recovery Centre will recover heat and will use this to generate 21MW of electricity, of which 18.5MW will be exported to the grid. As described in Section 2.3, approximately 50% or 9.25MW could be renewable electricity, which would contribute to meeting Ireland's target of a 40% share of electricity from renewable sources in gross final consumption by 2020.

In 2013, according to the SEAI (2015) report, renewable energy in Ireland contributed 7.8% of Gross Final Energy Consumption, almost halfway towards Ireland's binding 2020 target. In order to meet the 2020 target, SEAI estimate that an average of an additional 200 MW/annum renewable electricity capacity will be required. The majority of this capacity has been delivered by wind turbines to date, and so the contribution of renewable electricity from biomass at the Ringaskiddy Resource Recovery Centre will not only support the achievement of the target but will also help to diversify Ireland's renewable energy supply.

2.6 Summary

EU and national waste policy requires waste to be managed in an economic, sustainable and environmentally appropriate manner. Implementing the EU waste hierarchy, waste should be managed as a resource and disposal should be the last resort. EU and national policies support the recovery of energy from residual waste. In particular, the WFD and NHWMP require that Ireland should be self-sufficient in waste management. Indeed, the NHWMP, SRWMP and other plans and policies confirm the need for thermal recovery capacity at a waste management facility similar to the proposed development.

The requirement of the SRWMP includes 300,000 tonnes capacity for residual municipal waste as well as 50,000 tonnes capacity for hazardous waste and an additional but unspecified capacity for industrial waste. There is currently a lack of suitable recovery capacity within the Southern Region while a large quantity of residual MSW is being exported for recovery in similar facilities in continental Europe. This is not a sustainable option in the long term as it infringes the proximity principle and does not meet the objective of moving towards self-sufficiency.

The EPA's NHWMP anticipates that the private sector will develop technically and economically feasible treatment options, including thermal treatment. Similarly, the SRWMP notes that the required infrastructure will not be delivered by the Local Authorities as the investment is anticipated from the private sector. The combined approach to the management of residual MSW, industrial waste and suitable hazardous waste by Indaver for the proposed Ringaskiddy Resource Recovery Centre will contribute significantly to the attainment of these objectives.

Moreover, the energy recovery from residual waste at the proposed Ringaskiddy Resource Recovery Centre will help Ireland to achieve its renewable energy targets.

Local planning policies and objectives, as set out in the Cork County Development Plan and the Carrigaline Local Area Plan, support the development of a facility such as the proposed Ringaskiddy Resource Recovery Centre on the proposed site in Ringaskiddy.

Section 6.4.11 of the Cork County Development Plan 2014-2020 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.

The proposed development is supported by policy objective WS 7-1 of the Cork County Development Plan 2014-2020 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.

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.

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

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