2. Policy and Planning Framework and Need for the Scheme

2.1 Introduction

This section of the Environmental Impact Statement (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.

The **National Waste Management Plan for a Circular Economy 2024-2030 (NWMP)**[i] provides the framework for waste management policy in Ireland and recognises that there is a waste treatment capacity deficit within the State, illustrated by high levels of waste export and continued use of landfill for MSW. Ireland exported 38% of its municipal solid waste (MSW) in 2021 for thermal recovery and recycling, amounting to approximately 1.2 million tonnes.

Reliance on export is not sustainable and the identification of existing and future critical infrastructure for the final treatment of municipal waste is essential to protect, promote and ensure continuity of supply in the market. The NWMP also identifies the need to support and protect existing and future nationally and regionally important waste infrastructure and move towards self-sufficiency. This is further supported by a targeted policy supporting the provision of 200,000 to 300,000 tonnes of additional recovery capacity for the treatment of non-hazardous residual wastes nationally, to ensure there is adequate active thermal treatment capacity.

The NWMP also supports the development of additional capacity for the treatment of hazardous waste in accordance with the **National Hazardous Waste Management Plan 2021-2017**[ii] to ensure there is adequate active treatment capacity.

The capacity of the proposed development is 240,000 tonnes per annum (including 24,000 tonnes per annum of suitable hazardous waste), which would satisfy the majority of the additional thermal treatment capacity outlined as required in the NWMP.

Furthermore, there is a lack of suitable recovery capacity within the Southern Waste Region (only 2% of consented national thermal recovery capacity is located in the Southern Waste Region despite it representing 33% of the national population) 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 (which currently holds 89% of consented thermal recovery facilities). Ireland's regional authorities have highlighted Ireland's continued dependence on export as well as the fact that the State does not have adequate infrastructure to manage the volume of MSW being produced. There is a national deficit in waste management capacity, and an ongoing need for Ireland to reduce its reliance on other Member States' excess capacity for treatment of MSW through export.

Moreover, the first revision of the **National Planning Framework**[iii], and the **National Development Plan**[iv], both being reviewed as part of Project Ireland 2040 have outlined plans for regional balancing to support and accommodate population growth and housing targets. Investment in waste management infrastructure is critical in keeping pace with these objectives as well as achieving circular economy and climate objectives.

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

- Supporting the provision of 200,000 to 300,000 tonnes of additional dedicated thermal recovery capacity for the treatment of non-hazardous residual wastes nationally, to ensure there is adequate active thermal treatment capacity as identified in Focus Area 14 of the **National Waste Management Plan for a Circular Economy 2024 – 2030 (NWMP)**;

- Self-sufficiency in waste treatment within the State and reducing Ireland's vulnerable reliance on exports of hazardous waste and non-hazardous residual municipal waste as outlined in Core Policy 12 and Focus Area 11 of the NWMP;
- Diverting residual waste away from landfill and recovering energy from it in line with the **EU's Circular Economy Strategy**[v], the revised **Waste Framework**[vi] **and Landfill Directive**[vii], and **Ireland's Climate Action Plan 2025**[viii], as well as the broader goals of the **European Green Deal**[ix] and **8th Environment Action Programme**[x];
- More ambitious recycling targets, as set out in the revised **EU Waste Framework Directive and** supported by the EU **Circular Economy Action Plan (CEAP)**[xi], by extracting ferrous and non-ferrous metals from bottom ash in line with the principles of resource efficiency and material recovery;
- Sustainable, secure and competitive energy generation in line with energy policy objectives; in the Renewable Energy Directive and other National and EU Energy policies
- Delivering infrastructure of strategic importance with private sector investment; in line with the NWMP Delivery Roadmap and the NDP.

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 8th Environment Action Programme 2022

The **8th Environment Action Programme (EAP)** was formally adopted by the European Parliament and the Council in April 2022 and covers the period up to 2030. It sets out the EU's environmental and climate priorities to support the objectives of the European Green Deal and ensure a well-being economy within planetary boundaries.

This document oversees the implementation of environmental policy for Member States until 2030. It builds on a vision for 2050 that is set out as follows:

"The long-term priority objective is that, by 2050 at the latest, Europeans live well, within planetary boundaries and in a well-being economy where nothing is wasted. Growth will be regenerative, climate neutrality will be a reality, and inequalities will have been significantly reduced."

The 8th EAP has six key thematic priority objectives:

- Achieve the 2030 greenhouse gas emission reduction target and climate neutrality by 2050;
- Enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change;
- Advance towards a regenerative growth model, decouple economic growth from resource use and environmental degradation, and accelerate the transition to a circular economy;
- Pursue a zero-pollution ambition, including air, water and soil and protect the health and well-being of Europeans;
- Protect, preserve and restore biodiversity, and enhance natural capital;
- Reduce environmental and climate pressures related to production and consumption (particularly in the areas of energy, industry, buildings and infrastructure, mobility, tourism, international trade and the food system).

The European Commission's **Circular Economy Package (CEP)** forms a central pillar of the EU's broader environmental framework under the **European Green Deal**[xii]. It is supported by a suite of revised waste legislation—most notably the **Waste Framework Directive** and the **Landfill Directive**—which set ambitious, legally binding targets to increase municipal waste recycling, reduce landfill dependency, and drive sustainable resource use across the EU.

In June 2018, four amending Directives forming the core of the EU's **CEP** were adopted and published in the Official Journal of the European Union. These included **Directive (EU) 2018/851** amending the **Waste Framework Directive (2008/98/EC)**, **Directive (EU) 2018/850** amending the **Landfill Directive (1999/31/EC)**, along with updates to the Packaging and Packaging Waste Directive[xiii], and the End-of-Life Vehicles[xiv], Batteries[xv], and WEEE Directives[xvi]. These Directives enforce the waste hierarchy, extended producer responsibility (EPR), and introduced stronger requirements for separate collection. These measures are particularly relevant for the proposed development, as they guide infrastructure planning for waste recovery and support alignment with proximity and self-sufficiency principles.

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 reuse 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 **CEP** includes an **EU Circular Economy Action Plan (CEAP)**, the most recent of which was adopted in March 2020 and sets out a comprehensive programme of measures addressing every stage of the product lifecycle—from production and consumption to waste management and the development of markets for secondary raw materials. The intent of the **CEAP (2020)** is to ensure the European Union's transition to a circular economy. Ireland's **NWMP** applies the principles of the Circular Economy focusing 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 development will support the **8th EAP** and Circular Economy objectives including the suite of directives falling under the first EU **CEP** and updated EU **CEAP**. These include revised and enhanced targets on the landfilling and recycling of municipal waste which Ireland is obliged to adhere to 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 EU Circular Economy Package

According to the European Commission the EU **CEP** should "help European businesses and consumers to make the transition to a stronger and more circular economy where resources are used in a more sustainable way."

Thus, the **CEP**'s primary intent is to ensure the European Union's transition to a circular economy as opposed to the typical linear economy in which resources are created, used, and disposed. A circular economy is one in which resources are used for as long and as productively as possible, and at the end of their useful life, their products and materials are recovered and regenerated. The **CEP** is thus centred on 'designing waste out of the system'.

The four amending Directives that constitute the EU **CEP** include:

- Directive 2018/850 of May 30, 2018, amending **Directive 1999/31/EC on the landfill of waste**;
- Directive 2018/851 of May 30, 2018, amending **Directive 2008/98/EC on waste**;
- Regulation (EU) 2025/40, which repeals Directive 94/62/EC on packaging and packaging waste;

- Directive 2018/849 of May 30, 2018, amending Directives 2000/53/EC on end-of-life vehicles; 2006/66/EC on batteries and accumulators and waste batteries (Batteries regulation EU) 2023/1542); accumulators; and 2012/19/EU on waste electrical and electronic equipment.
- Whilst the main objective of the circular economy is to cover all phases of the product's life cycle, from production and consumption to waste management, the European **CEP** is primarily focused on waste.

Accordingly, the four Directives have been built on the following principle:

> *"Waste management in the Union should be improved, with a view to protecting, preserving and improving the quality of the environment, protecting human health, ensuring prudent, efficient and rational utilization of natural resources and promoting the principles of the circular economy."*

New EU CEP Targets

In order to facilitate the move to a European circular economy and reach a high level of resource efficiency, the Package through amendments to the above Directives[1], imposes several ambitious targets which Member States, including Ireland must comply with. These targets include:

Directive (EU) 2018/851 amending the **Waste Framework Directive 2008/98/EC**

- By 2025: At least 55% of municipal waste must be prepared for reuse and recycling;
- By 2030: Target increases to 60%;
- By 2035: Target further increases to 65%.

Directive (EU) 2018/850 amending the **Landfill Directive 1999/31/EC**

- From 2030: Waste suitable for recycling or other recovery, particularly in municipal waste, must not be accepted to landfills, except where landfilling delivers the best environmental outcome;
- By 2035: The amount of municipal waste landfilled must be reduced to 10% or less of the total municipal waste generated.

Directive (EU) 2018/852 amending the Packaging and Packaging Waste Directive 94/62/EC

- By 2025: At least 65% by weight of all packaging waste must be recycled;
- By 2030: Target increases to 70%;
- Specific minimum targets for recycling some materials contained in packaging waste (plastic, wood, ferrous metals, aluminium, glass, paper, and cardboard) are imposed, and
- By December 31, 2023, Member States must ensure that bio-waste[2] is either separated and recycled at source or is collected separately and not mixed with other types of waste.

These ambitious and stringent targets were given effect in National law in 2020. Thereafter, Ireland has been obliged to meet the new targets on reuse and recycling and the strict limitation on the amount of municipal waste which can be landfilled.

For the purposes of this Chapter of the EIS, the amended Directives on waste and the landfilling of waste are particularly relevant in the context of the proposed development and are discussed in detail below.

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[1] Member States including Ireland are required to bring into force laws, regulations and administrative provisions necessary to comply with the revised CEP Directives by 5 July 2020 and which entered into force on 4 July 2018 following publication in the Official Journal of the European Union.

[2] 'bio-waste' means biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises and comparable waste from food processing plants.

2.2.1.3 Directive (EU) 2018/851 amending Directive 2008/93/EC on waste

The **Waste Framework Directive (2008/98/EC) ("the WFD")** previously set out the legal framework for waste management in the European Union, including the basic concepts and definitions related to waste management.

The amended Directive (2018/851) on waste amends the 2008 WFD to increase the targets laid down and to avoid methods of waste treatment which lock in resources at the lower levels of the waste hierarchy. The waste hierarchy as established in the previous WFD has also been enshrined in this amended Directive with the result that it must be applied as a priority order in waste prevention and management legislation and policy.

The waste hierarchy establishes the following order of priority:

- Prevention;
- Preparing for reuse;
- Recycling;
- Other recovery e.g. energy recovery, and
- Disposal.

The amended Directive provides that Member States should take account of the waste hierarchy by increasing waste prevention, increase preparing for reuse and recycling rates, enable high-quality recycling and boost the uptake of quality secondary raw materials. In addition, as set out in the previous WFD, the newly amended Directive on waste continues to impose 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 amended Directive on waste continues to apply the hierarchy of waste management as detailed above, 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]) as amended by European Union (Waste Directive) Regulations 2020 -S.I. No. 323/2020 and, for ease of reference, is demonstrated in **Figure 2.1** (*Source: EPA 2016, Irelands Environment 2016, An Assessment*[xvii]*).*The waste hierarchy shows that waste prevention is the most preferred option, with disposal being the least desirable option. Reuse, recycle 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 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[xviii].

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 waste hierarchy thus gives priority to the options that deliver the best overall environmental outcome and in the context of the proposed development, the waste-to-energy process – thermal treatment coupled with energy recovery falls within the recovery component of this hierarchy.

Thus, the treatment of unavoidable wastes and residues by the waste-to-energy process may be regarded as paying due regard to this principle and is in alignment with the proper and correct application of the waste hierarchy as stipulated by EU legislation.

In 2017, the Commission published a waste-to-energy Communication to enhance synergies between the circular economy, resource efficiency and waste-to-energy. The European Commission's Waste-to-Energy communication, **The Role of Waste-to-Energy in the Circular Economy**[xix], seeks to provide guidance to Member States on how to achieve properly balanced waste-to-energy capacity. It also affirms that the waste hierarchy remains as the cornerstone of EU policy and legislation and is a key to a transition to a circular economy.

In this regard, the Communication states:

> *'Waste-to-energy processes can play a role in the transition to a circular economy provided that the EU waste hierarchy is used as a guiding principle which ranks waste management options according to their sustainability and gives top priority to preventing and recycling of waste'.*

In the context of energy recovery, the Communication goes on to state that when waste cannot be prevented, prepared for reuse or recycled, recovering the energy embedded in it and injecting it back in the economy is the next best environmental and economic option. The treatment of unavoidable wastes and residues by the energy from waste process may be regarded as paying due regard to the waste hierarchy as it falls within the recovery tier of the waste hierarchy and is to be favoured over landfill whereby such wastes would contribute to greenhouse gas emissions, leachate and would necessarily involve significant after care and which may be regarded as the least favoured environmental option and the least preferred tier of the waste hierarchy.

Energy from waste is also presented as a means of producing low-cost heat and often initiates development of a city's district heating network, utilising the energy content embedded in the waste according to the Communication.

Whilst the Communication does state that investments in treatment facilities for industrial waste and for residual waste, such as additional incineration capacity should only be granted in limited and well justified cases, where there is no risk of overcapacity and the objectives of the waste hierarchy are fully respected. In Ireland and many other Member States a risk of such overcapacity does not exist and can be justified from a long-term perspective given the lack of treatment capacity as set out in national policy documents.

Furthermore, given that the proposed development will be classed as a recovery operation pursuant to the waste hierarchy and will contribute to the continued diversion of waste from landfill and associated negative and harmful environmental impacts and thus accords with the proper application of the waste hierarchy, it may be said to be in broad alignment with this Communication.

2.2.1.4 Directive (EU) 2018/850 amending Directive 1999/31/EC on landfill of waste

Under this amended Directive, the European Union has set out new rules for the landfill of waste and it establishes stringent and legally binding targets. This Directive amends **Directive 1999/31/EC on the landfill** of waste to ensure that Member States move towards a more circular economy and is intended to prevent or reduce the adverse effects of the landfill of waste on the environment, soil, air, surface and groundwater.

The objective of this Directive is to improve waste management in the EU and its primary aim is to ensure a progressive reduction of landfilling of waste in the EU. The Directive also sets new binding landfill reduction targets, including:

- By 2030 all waste suitable for recycling or recovery will not be accepted in a landfill, except when landfilling provides the best environmental outcome.

- By 2035 municipal waste that is landfilled must only account for 10% that is generated (by weight)[3]. The Commission was due to review this 10% target by 31 December 2024. However, at the time of writing there has been no update published by the Commission.

In Ireland, a significant volume of MSW is still sent to landfill. During the period 2020-2022 an approximate average of 500,000 tonnes was landfilled each year. With the diminishing future landfill capacity, it is essential that the remaining landfill capacity is reserved for waste types that cannot be treated by solutions higher up the waste hierarchy. Waste streams such as oversized, non-combustible and bulky waste cannot be treated in thermal recovery plants without extensive pretreatment (and only in some cases). Given the legal limits on landfilling municipal waste by 2035 and the continued trend of reduction in available landfill capacity, sufficient thermal recovery capacity must be available to ensure that adequate landfill capacity is available for those waste streams that cannot otherwise be treated outside of landfill disposal.

The proposed development 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 development 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 **EU CEAP** and the amended **EU Directives on waste and the landfilling of waste**. Furthermore, the proposed development will contribute to the achievement of the enhanced and progressively more stringent targets as contained within the **CEP** including the limitation of the landfilling of municipal waste.

2.2.1.5 The EU Circular Economy Action Plan (CEAP) (2020)

The CEAP (2020) was adopted by the EU Commission in March 2020 the main aim of this initiative is to accelerate the EU's transition to a circular economy, ensuring sustainable growth by reducing waste and keeping resources in use for as long as possible.

The CEAP (2020) sets out a clear vision for how the circular economy can support climate neutrality by 2050. Achieving this goal will rely on reducing the extraction and consumption of raw materials, decoupling economic growth from resource use, and doubling the circular material use rate.

> *"As half of total greenhouse gas emissions and more than 90% of biodiversity loss and water stress come from resource extraction and processing, the European Green Deal launched a concerted strategy for a climate-neutral, resource-efficient and competitive economy. Scaling up the circular economy from front-runners to the mainstream economic players will make a decisive contribution to achieving climate neutrality by 2050 and decoupling economic growth from resource use, while ensuring the long-term competitiveness of the EU and leaving no one behind.*
>
> *To fulfil this ambition, the EU needs to accelerate the transition towards a regenerative growth model that gives back to the planet more than it takes, advance towards keeping its resource consumption within planetary boundaries, and therefore strive to reduce its consumption footprint and double its circular material use rate in the coming decade."*

In 2023, the Commission revised the **Circular Economy Monitoring Framework**[xx], previously adopted in 2018. This revision adds indictors such as resource productivity and consumption footprint to the existing monitoring framework which includes generation of municipal waste per capita, recycling rate of municipal waste and green public procurement, among others.

The proposed development will contribute to reducing reliance on landfill in Ireland, recovering energy from residual waste that cannot be recycled, and supporting more efficient resource use. By diverting non-recyclable waste from disposal and converting it into useful energy, the proposed development can help lower the environmental footprint of waste management and contribute to decoupling economic growth from raw material extraction.

[3] A derogation by a Member State to postpone the above targets by up to 5 years may only be granted if it landfilled more than 60% of its municipal waste generated in 2013 as reported to the OECD and Eurostat

2.2.1.6 The Critical Raw Materials Act

The **EU Critical Raw Materials Act (CRMA)**[xxi], adopted in 2023, aims to secure a sustainable and resilient supply of critical raw materials essential for the EU's green and digital transitions. Its key targets include ensuring that by 2030, the EU extracts at least 10%, processes 40%, and recycles 15% of its annual consumption of critical raw materials within the Union, while limiting strategic dependencies on third countries.

For Ireland, the **CRMA** presents both an opportunity and a challenge—to contribute to EU targets by enhancing domestic resource recovery and supporting circular economy practices. The proposed development includes the recovery of ferrous and non-ferrous metals from bottom ash, directly supporting these binding targets by reintroducing valuable materials back into the economy, reducing reliance on imports, and contributing to the EU's strategic autonomy in critical raw material supply chains.

2.2.1.7 Waste Shipment Regulation

The original **EU Waste Shipment Regulation (Regulation (EC) No 1013/2006**[xxii]**)** aimed to protect human health and the environment from the adverse effects of waste shipments, while facilitating the environmentally sound management of waste and promoting the principles of the waste hierarchy. It established procedures and control regimes for the shipment of waste, particularly hazardous waste, within, into, and out of the EU. The **revised EU Waste Shipment Regulation (2024/1157**[xxiii]**)** makes it significantly harder for Member States to export hazardous waste, particularly outside the OECD. While it does not impose a blanket requirement to justify every export, it reinforces the principles of proximity and self-sufficiency, encouraging domestic treatment wherever feasible. Compared to the previous version, the regulation is notably stricter: it now bans hazardous waste exports to non-OECD countries outright, requires independent audits of facilities receiving waste outside the EU to ensure environmentally sound management, mandates digital tracking of all shipments through a centralised EU system by 2026, and strengthens enforcement through risk-based inspections and clearer rules to prevent illegal shipments. The proposed development can support the domestic treatment of hazardous waste, as necessitated by the regulation's provisions on managing waste as close to its source as possible.

2.2.2 National Waste Policy

2.2.2.1 A Waste Action Plan for a Circular Economy 2020-2025

The Department of the Environment, Climate and Communications (DECC) published Ireland's National Waste Policy **A Waste Action Plan for a Circular Economy 2020-2025**[xxiv] **(WAPCE)** in September 2020. 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.

The **WAPCE** highlights the need for supporting indigenous waste treatment capacity, particularly emphasising the importance of examining legislation and procedures for the development of waste management infrastructure. According to the European Environment Agency's March 2025 Waste Management Country Profile[xxv], Ireland generated 644 kg/cap of municipal waste in 2020 which is significantly above the (estimated) EU-27 average of 520 kg/cap in the same year. This considerable waste generation places significant pressure on existing infrastructure, thereby exposing the nation to potential environmental damage and limiting economic growth due to insufficient waste management solutions. A fundamental priority identified is the provision of adequate contingency capacity to ensure that the State can withstand such shocks. A key message from the WAPCE is also the importance of the application of the proximity principle, as reliance on facilities in other EU Member States leaves Ireland vulnerable:

> *"There will always be a risk that outlets throughout the EU (for example, under-capacity Waste-to-energy facilities), or facilities in a post-Brexit UK may be in a more competitive position relative to Irish facilities."*

This highlights the risk of external dependence—if EU or UK facilities offer more competitive conditions, Irish waste may be exported, undermining national control, delaying local infrastructure investment, and exposing the country to market or policy disruptions.

The **WAPCE** also outlines the material-specific recycling targets, particularly for metals, with a goal of 70% recovery by 2030 and 80% by 2035, which can be supported by technologies that recover metals from bottom ash—avoiding landfill waste and offsetting emissions associated with virgin material use. The proposed development can play a crucial role in supporting these objectives by enhancing local waste management capacity and facilitating the achievement of recycling and recovery targets outlined in the **WAPCE**.

A number of measures in the **WAPCE** were given regulatory effect in 2024, including:

- The European Union (Household Food Waste and Bio-Waste) (Amendment) Regulations[xxvi] were introduced in December 2023, requiring waste collection service providers to provide a bio-waste collection service (food and garden waste) to all households in the State with a waste collection service from 1st January 2024;
- Requirement for all plastic beverage containers up to three litres to have cap tethered to the container became mandatory for all products placed on the market from 3rd July 2024;
- New extended producer responsibility schemes to be established for wet wipes, balloons and fishing gear by 31st December 2024.

Measures such as these help to ensure that black bin waste sent to WtE plants is neither recyclable nor compostable, thereby, adhering to the waste hierarchy whilst maximising the benefits of the recovery process by treating residual waste, keeping it out of landfill and harnessing energy in the process.

Ireland's first national circular economy strategy, the **Whole of Government Circular Economy Strategy 2022-2023**[xxvii] was a specific commitment under the **WAPCE**. Its purpose is to provide a framework and set a course for Ireland to transition across all sectors and at all levels of government toward circularity. This strategy outlines tangible measures to break the cycle of wasteful resource extraction, unsustainable consumption, and unnecessary disposal. The second circular economy strategy is currently being drafted with an anticipated public consultation and final publication in 2025 as provided for in the **Circular Economy Miscellaneous Provisions Act 2022 (the Circular Economy Act)**[xxviii].

The Environmental Protection Agency's (EPA) **Circular Economy programme 2021-2027**[xxix] is a statutory programme under the Circular Economy Act, a commitment in **WAPCE** and sits under the Whole of Government Circular Economy Strategy supporting the strategy. The programme is founded on the application of the waste hierarchy principles to four key pillars of leadership, support, knowledge and opportunity in order to look beyond waste management and promote circularity as an economic model and to enhance coherence and alignment among national, regional and local activities.

The EPA's **Circular Economy and Waste Statistics Highlight Report 2022**[xxx] states that *"Ireland is in a linear economy with continued high levels of waste generation."* A total of 15.7 million tonnes of waste was generated in Ireland in 2022, which equates to 8 kg per person every day. Between 2016 and 2022, municipal waste generation increased from 2.7 million tonnes to 3.19 million tonnes, of which 1.24 million tonnes or 39% was exported for treatment.

One of the five key messages in the 2022 report states that:

> *"Ireland's national waste treatment capacity is vulnerable with an over reliance on other countries to treat our waste. Over 1.2 million tonnes of municipal waste was exported to other countries in 2022."*

The report also highlights that 220,000 tonnes or 57% of hazardous waste was exported for treatment in 2022.

Furthermore the report says, "Ireland also continues to rely on export for treating a number of key waste streams. In 2022, 39% of municipal waste was exported for final treatment and 369,000 tonnes of residual municipal waste exported for energy recovery through incineration."

The EPA Circular Economy and Waste Statistics Highlights Report 2021[xxxi] also stated as one of its four key messages that:

"Ireland is heavily reliant on exporting our waste for final treatment overseas. National capacity to treat residual non-hazardous and hazardous wastes need to be developed to build resilience and reduce our dependence on treatment facilities in Europe."

More recently, **Ireland's State of the Environment Report 2024[xxxii] (SOER)** published by the EPA reaffirms these statements. The report concludes that the current overall assessment for the circular economy and waste is poor but progress is being made in a number of areas to improve performance. Waste generation continues to grow, in absolute and per capita terms, and Ireland remains overly reliant on export markets for recycling and for treating municipal residual waste.

On the matter of infrastructure capacity to treat waste the SOER 2024 report states: "Ireland's insufficient capacity to treat domestic residual wastes and its continued reliance on overseas treatment facilities are risks to public health and to the waste sector. Exporting waste is an economic and environmental loss to Ireland, as other Member States benefit from the energy generated from our waste. National capacity to treat residual non-hazardous and hazardous wastes needs to be developed where feasible to build resilience and reduce dependence on exports."

Reliance on the export of residual waste is increasingly recognised as an unsustainable practice, underscoring the need for an indigenous, self-sufficient, long-term alternative to landfill - an approach firmly supported by national policy.

There has been a sharp decline in Ireland's landfill rate for municipal waste from over 80% in 2001 to 15% in 2022. A 1% decrease was observed from the 2021 landfill rate of 16%.[xxxiii] Ireland must reduce the share of municipal waste landfilled to 10% or less by 2035, which includes waste landfilled at each step along the waste treatment process in Ireland and abroad.[xxxiv]

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

- Substantial increase in the landfill levy, which is currently €85/tonne, to discourage waste disposal and encourage movement of waste treatment higher up the waste hierarchy;
- The decreasing number of active landfills accepting waste within the country, from 21 in 2011 to three in 2025;
- The opening, in 2011, of Ireland's first municipal waste incinerator with energy recovery and a second municipal waste incinerator in 2017;
- The increased production of refuse derived fuels for use both within Ireland and abroad, and
- A significant increase in the export of municipal waste for recovery in waste-to-energy facilities abroad.

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

The proposed development aligns with Ireland's circular economy ambitions by adhering to the waste hierarchy, recovering value from residual waste, and reducing reliance on landfill and export. It can also contribute to material recovery and improved recycling rates, while offering an economically competitive and sustainable solution for managing non-recyclable waste.

2.2.2.2 National Waste Management Plan for a Circular Economy 2024-2030

The **National Waste Management Plan for a Circular Economy 2024–2030[xxxv] (NWMP)** is Ireland's first national waste plan. The Waste Management Act 1996 requires Local Authorities to make a waste management plan either individually or collectively for their functional areas. In 2015 local authorities established three Regional Waste Management Planning Offices to develop and implement three regional waste management plans on their behalf. Following an evaluation, it was recommended that a single plan be prepared to replace the existing regional plans. The NWMP sets out a framework for the prevention and management of waste in Ireland for the period 2024 to 2030. The NWMP has an ambition of 0% total waste growth per person over the life of the Plan and it has been prepared to support and supplement the wider policy base and includes specific targets, policies and actions to enable the waste and resource sector to meet the circularity challenge and accelerate the transition to a circular economy.

The waste management sector in Ireland is an open market predominantly operated by the private sector and the proportion of waste collection and treatment infrastructure in direct ownership of local authorities is relatively small. The NWMP covers a diverse sector and its policies cannot be achieved by the local government sector alone as local authorities do not control all the levers and tools required to deliver on the Plan targets. A collaborative co-ownership approach between all stakeholders has been taken to ensure that the Plan can be implemented efficiently and effectively on an agreed basis, where the targets and policies are clear and where all parties have ownership. Therefore the private waste industry plays an important role in the delivery model of the Plan.

Recent levels of MSW generation and projections of future MSW generation were presented in the NWMP highlighting a trend of increasing generation reaching projected levels of 3.7-3.8 million tonnes by 2030 taking account of the estimated effect of the planned interventions to incentivise waste prevention and better recycling. Key Deliverable 13 on Thermal Recovery states the Local Government Sector (LGS) supports the provision of additional thermal recovery capacity and this Plan provides guidance as to the capacity required.

The NWMP sets out the waste management challenges faced by the State which includes the delivery of infrastructure. An overview of infrastructure available within the State is presented in the NWMP which illustrates that when generation rates are compared to treatment capacity, there remains a deficit which is being managed through waste exports.

The NWMP acknowledges the waste treatment capacity in Ireland and the need for a reduction in exports:

> *"There is a waste treatment capacity deficit within the State which is illustrated by high levels of waste export (Ireland exported 38% of MSW in 2021 for thermal recovery and recycling). Reliance on export is not sustainable and the identification of existing and future critical infrastructure for the final treatment of municipal waste is essential to protect, promote and ensure continuity of supply in the market."*

Ireland's reliance on exporting waste for final treatment undermines the principles of self-sufficiency and the proximity principle outlined in the **WFD**.

The EU principles of self-sufficiency and proximity require 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.*

Commonly referred to as the National Capacity Deficit, Ireland's dependence on export to other Member States to treat our residual MSW is high risk due to a variety of factors including, the availability of waste from countries where the economics of waste export/import is more advantageous which marginalises Ireland's ability to secure offtake in countries such as Denmark, Sweden, and the Netherlands, policy changes and economic instruments such as bans or levies that could impact the future of waste export from Ireland, dependence on shipping which is susceptible to inclement weather conditions and increased climate effects for example warmer winters reduce demand.

The current national deficit in residual and hazardous waste treatment capacity highlights the urgent need for investment in domestic infrastructure. Exporting waste increases costs, carbon emissions, and vulnerability to external market fluctuations, while limiting national control over environmental standards and resource recovery. Strengthening national capacity is essential to building a resilient, efficient, and circular waste management system.

An Bord Pleanála (ABP), now known as An Coimisiún Pleanála (ACP) since 18 June 2025, cited the absence of designated national scale waste treatment facilities in national policy as a barrier in decision making on major infrastructure. To resolve this gap the NWMP identified the relevant criteria for the type of facility that constitutes "nationally and regionally important infrastructure" and endorsing the need for this infrastructure through a Core Policy (CP12). This information is provided to assist ABP, planning authorities and other relevant bodies in the decision making for consents of future waste and resource infrastructure applications. Key Deliverable 19 of the NWMP Delivery Roadmap states the LGS will liaise with ABP, planning authorities and other relevant bodies on the application of the criteria for Nationally and Regionally Important Infrastructure.

Core Policy 12 of the NWMP recognises and supports the need for nationally and regionally important waste infrastructure, including infrastructure of the type, scale and proximity essential to maintain waste services and infrastructure that contributes to the ambition and policies of the NWMP.

The criteria for Nationally and Regionally Important Infrastructure in Ireland are set out in Table 4.1 of Vol. II of the NWMP. An excerpt from the table is in **Table 2.1** below, which shows the infrastructure capacity threshold for thermal treatment of MSW to be considered nationally important.

Table 2.1 Excerpt from the NWMP 2024-2030 Criteria for Nationally and Regionally Important Infrastructure

Treatment	National Criteria and Threshold
Thermal Treatment of MSW	Dedicated thermal treatment plants with a capacity greater than 100,000 tonnes per annum.

At a capacity of 240,000 tonnes per annum, the proposed development would be categorised as nationally and regionally important infrastructure.

Focus Area 11 of the NWMP sets out targeted policies (TP's) and priority actions (PA's) to regulate existing and new infrastructure as well as measures to ensure developments are appropriately scaled and located and reflect the policies of the waste hierarchy, self-sufficiency and proximity principles.

- *TP 11.1 The development or enhancement of existing or new infrastructure or initiatives will be subject to the application of the waste hierarchy and the waste facility siting guidance for all new infrastructure (with this guidance to be embedded in Local Authority Development Plans);*
- *PA 11.1 Ensure infrastructural developments are in compliance with the waste hierarchy, siting guidance and the wider policy framework of this Plan through engagement with An Bord Pleanála, Planning Authorities and other relevant bodies;*
- *TP 11.2 Enhance national self-sufficiency with the development of sustainable waste management infrastructure where feasible and viable;*
- *PA 11.2 Develop a National Waste Infrastructure Capacity Register and other improvements to aid the consenting process;*
- *TP 11.3 Ensure that future authorisations of waste infrastructure take account of the authorised and available capacity in the market;*
- *TP 11.4 The EPA and the National Waste Collection Permit Office will work on the development and maintenance of a national capacity register for all authorised waste treatment operations within the State;*
- *PA 11.4 Review all waste related Strategic Infrastructure Development applications with regard to the waste hierarchy, business continuity and contingency.*

The Guidance for Siting Waste Management Facilities, a supporting document to the NWMP, refers to planning considerations which includes the geographic distribution of other similar authorised facilities (whether constructed or not) stating regional spatial imbalances should be avoided where possible to ensure the population at large is adequately serviced by relevant facility types. The Guidance further cites the consideration for the requirement for national, regional or local self-sufficiency, as appropriate.

When considering the necessary expansion of Ireland's indigenous waste infrastructure, the NWMP 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.

Several measures are included to address this, Focus Area 2 of the NWMP titled "Municipal Household Waste" outlines targeted policies to reduce the amount of waste generated per capita in Ireland, encourage source segregation and lower the amount of recyclable material in black bin waste:

- *TP 2.1 Identify and promote new means, methods and key drivers of sustainable consumption practices to reduce waste generation;*
- *TP 2.3 Strengthen the monitoring and measurement of household waste and implement appropriate enforcement measures in response to non-compliances identified;*
- *TP 2.4 Identify and implement enhanced collection and segregation systems for additional waste streams for all household settings to maximise the quantity and quality of materials collected;*
- *TP 2.5 Analyse the impact of the existing incentivised charging system for household municipal waste.*

As mentioned previously, the **European Union (Household Food Waste and Bio-Waste) Regulations** were introduced in December 2023 and ensure the segregation and beneficial use of food waste arising in the commercial sector and households. The aim of these Regulations is to facilitate the achievement of the targets set out in **Directive 99/31/EC on the landfill** of waste for the diversion of biodegradable municipal waste from landfill sites, by directing source-segregated food waste to other forms of treatment.

As such, food waste must be source segregated and collected by authorised waste collectors and should not be mixed with other waste, other than specified bio-waste and food waste, or other material with different residual municipal waste prior to delivery to authorised facilities including waste-to-energy facilities.

Other measures to encourage the application of the waste hierarchy in Ireland's waste treatment landscape include the landfill levy **(Waste Management (Landfill Levy) Regulations 2015 (S.I. No. 189/2015)),** and the recovery levy **(Waste Management (Recovery Levy) Regulations 2023 (S.I. No. 189/2023))**. The landfill levy, currently set at €85 per tonne, aims to discourage the disposal of waste to landfill by making it a less economically attractive option, in line with the waste hierarchy. The recovery levy introduced in 2023 is set at €10 per tonne, applies to certain waste recovery activities and is designed to further encourage the prioritisation of waste prevention, preparation for reuse, and recycling over recovery. Certain exemptions to these levies exist, some of which are being phased out and some are under review – the application of these levies to more categories of waste aims to drive a greater proportion of the waste generated up the waste hierarchy.

The NWMP recognises the ongoing need for appropriate waste infrastructure and outlines measures to ensure waste is managed in accordance with the principles of the EU WFD. Mandatory source segregation is already required for recyclable plastics and bio-waste, with further measures planned to extend segregation to additional streams and environmental levies in place to further support these efforts.

These measures work to maximise material recovery and ensure that waste arriving at recovery facilities is genuinely residual and non-recyclable. The recovery of this material plays a crucial role in diverting it from landfill or export, allowing it to be converted into useful outputs, such as partially renewable energy. The NWMP acknowledges that the State continues to rely on the export of residual municipal solid waste and other waste streams — a practice that is ultimately unsustainable. While prevention and reuse are important, there remains a clear need for additional, indigenous recovery infrastructure. This need is explicitly supported under Focus Area 14 of the NWMP, which seeks to enhance national capacity and resilience in waste treatment.

Focus Area 14 of the NWMP sets out these key targeted policies and priority actions related to recovery infrastructure, among others:

- *TP 14.2 Support the provision of 200,000 to 300,000 tonnes of additional dedicated thermal recovery capacity for the treatment of non-hazardous residual wastes nationally, to ensure there is adequate active thermal treatment capacity;*

- *PA 14.3 Determine the implications of calorific values on thermal capacity with the thermal recovery sector (e.g., waste-to-energy plants);*
- *TP14.5 Support the provision of national capacity for bottom ash from existing thermal treatment facilities, pending the provision of alternative uses which optimise the circularity of this material.*

The NWMP carried out a financial deficit analysis of the LGS, and addressed the capital and operational costs borne by the waste industry to deliver waste services. It stated that in addition to the current cost model presented in Vol I of the NWMP, there are outstanding infrastructure requirements that were committed to in the **Regional Waste Management Plans 2015-2021 (RWMP)**. These requirements are restated in the NWMP relating to the development of a 200,000 to 300,000 tonnes of dedicated additional thermal recovery capacity (Policy TP14.2 and estimated at a cost of €200 million in the RWMP to develop and operate this infrastructure by the private sector). The NWMP continues to state, in terms of funding, these requirements are considered essential to ensure business continuity, however, these items remain outstanding for delivery.

The NWMP Delivery Roadmap states that private sector investment in collection and treatment infrastructure will be essential to create and maintain a functioning circular market. Support from the public sector through transparent and enabling policies and actions will aid the delivery of sustainable and viable private sector investment.

The proposed development represents nationally significant infrastructure that supports the objectives of the NWMP. It addresses Ireland's shortfall in domestic residual waste treatment capacity, contributing to national self-sufficiency and reducing dependence on export. The facility would be designed to extract maximum value from non-recyclable residual waste, displacing the use of finite fossil fuels while ensuring compliance with the waste hierarchy and EPA guidance on pre-treatment and bottom ash recovery. Crucially, it aligns with identified national capacity needs without drawing material away from reuse or recycling, supporting a circular, resilient waste management system.

2.2.2.3 National Hazardous Waste Management Plan 2021-2027

The **National Hazardous Waste Management Plan (2021–2027) (NHWMP)**[xxxvi] is the fourth national hazardous waste plan. It updates and revises the previous plan covering the period 2014-2020.

Whilst the current Plan covers the period to 2027, the Waste Management Act 1996 as amended, provides that at least once in each period of 5 years after the date of making of the hazardous waste management plan, the Environmental Protection Agency shall review the plan and make such revisions thereto as it thinks fit[xxxvii].

Under Key Action 19.2 of the NHWMP, the EPA is required to provide an annual update on the progress of the NHWMP recommendations. In this regard, an **Annual Report (2023)**[xxxviii] provides an update on all recommendations and key actions with a timeframe of 2021, 2022, 2023, 'ongoing' and 'annually'.

The current NHWMP sets out the priorities for 2021-2027, 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, with levels of exported waste increasing while the proportion of hazardous waste being treated in Ireland is slowly declining.[xxxix]

The NHWMP 2021-2027 sets out five key objectives:

1. *Support and drive priority prevention actions by industry and the public to reduce the generation of hazardous waste;*
2. *Support the identification of adequate and appropriate collection infrastructure for all hazardous wastes with a view to mitigating environmental and health impacts;*
3. *Endorse the proximity principle such that hazardous wastes are treated as close to the point of production as possible – including within Ireland, taking into account geographical circumstances or the need for specialised installations for certain types of waste.*
4. *Support effective regulation of the movement and management of hazardous wastes in line with national policy priorities;*

5. Promotion of safe reuse and recycling pathways in support of the circular economy.

The objective of moving towards increased self-sufficiency and endorsing the proximity principle continues to be recommended and informs numerous key recommendations throughout the plan. It will remain a core principle at the heart of Ireland's hazardous waste treatment landscape, where it is strategically / environmentally advisable, and technically and economically feasible. Such key recommendations from Section 3.3 of the NHWMP include:

- Recommendation 4: Strengthen systemic resilience for management of hazardous waste.
  - 4.1: Commission a review of hazardous waste management during the COVID-19 pandemic.
  - 4.2: Conduct a business continuity assessment for Ireland's hazardous waste management system to identify at-risk waste streams and associated infrastructure.
- Recommendation 9: Strengthen knowledge of national hazardous waste capacity to inform infrastructure development and contingency planning, in accordance with application of the proximity principle.
  - 9.1: Update & maintain inventory of national capacity for storage, treatment and disposal of hazardous wastes.
  - 9.2: Examine legislation and procedures for development of waste management infrastructure, as stated in the Waste Action Plan for a Circular Economy.

It is noted in the EPA 2023 Annual Report that technical assistance was procured by the EPA and a contract commenced in Q4 2023 to assist with the completion of Key Actions 4.2 and 9.1. The study will conduct a business continuity assessment for Ireland's hazardous waste management system, identify at-risk waste streams and associated infrastructure, review the national capacity for managing hazardous waste and inform infrastructure development and contingency planning, in accordance with the application of the proximity principle. It is anticipated that this study will be completed in 2025.

The NHWMP 2021-2027 acknowledges that there are challenges associated with complete self-sufficiency in Ireland given the range of specialist treatment that is required for certain hazardous waste streams on a relatively small island. However, it states that there is clearly a need for Ireland to take responsibility for the hazardous wastes produced within the economy and to take reasonable steps to provide appropriate treatment capacity.

This is further explained in Section 3.3 of the NHWMP:

> *"There is currently no commercial hazardous waste landfill or hazardous waste incinerator in Ireland and no facility for radioactive waste treatment. This lack of infrastructure is a risk to the state. While the EU single market gives security of movement, there are risks that export markets for hazardous wastes could close at short notice because of lack of capacity or cost factors."*

Appendix E of the NHWMP contains the Strategic Environmental Assessment Environmental Monitoring Programme which seeks to minimise exports and promote circular economy principles and highlights the indirect environmental benefits from the application of the proximity principle including minimising the distance of the transport of hazardous waste for treatment to improve air quality and reduce greenhouse gas emissions.

The NHWMP reported that there had been a steady increase in hazardous waste generated in Ireland since 2013. The estimate of hazardous waste generated in Ireland in 2019 was 580,977 tonnes. There was an increase of over 54,000 tonnes in 2019 when compared with 2018.[4]Most of Ireland's hazardous waste was exported for treatment, in recent years primarily to the Netherlands, United Kingdom and Norway. In 2019, a total of 379,386 tonnes was exported for treatment, of which 27% went for disposal and 73% was recovered.

[4] At the end of 2019, incinerator bottom ash from Dublin Waste to Energy was reclassified as non-hazardous waste. Amounting to 100,000 tonnes of waste in 2019, this change of classification will be reflected in 2020 data.

Of the hazardous waste treatment carried out in Ireland a total of 201,591 tonnes underwent treatment so it was no longer classified as hazardous waste, of which 62% was disposed of and 38% was recovered.

More recently, in 2022, Ireland generated 389,908 tonnes of hazardous waste, of which 66% was recovered and 34% underwent disposal. The decrease in waste generation from 2019 was due to a number of factors including reclassification of incinerator bottom ash from Dublin Waste-to-energy as non-hazardous waste, reduced dredging activities leading to a reduction in dredging spoil, and less hazardous soil and stones being accepted by facilities. In 2022, 57% of hazardous waste was treated abroad and 43% was treated in Ireland.

Section 6.1 of the NHWMP 2021-2027 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 6.1 of the NHWMP), including:

- *Addressing the deficit in capacity for the substantial waste stream currently exported for thermal treatment (i.e. co-incineration, use as fuel or incineration);*
- *Development of landfill capacity to manage non-recoverable and non-combustible hazardous wastes and residues, including asbestos; and*
- *Expansion of other recovery and treatment capacity in Ireland for waste that does not need thermal treatment or landfill – generally referred to as physico-chemical treatment.*

The NHWMP indicates that key actors in the plan are the Government, its agencies and local authorities who have responsibilities with regard to waste and environmental policy. Through the implementation of its recommendations, the plan also seeks to influence private-sector priorities, practices and investment decisions with regard to hazardous waste management.

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. The planned investment for the proposed development will contribute to the national security of hazardous waste capacity.

The Guidance for Siting Waste Management Facilities, a supporting document to the NWMP, refers to general siting criteria and considerations which state that sites that offer the opportunities to integrate differing aspects of waste processing are preferred choices. This can improve efficiency of waste processing as can the co-location of waste management infrastructure. The proposed development aligns with this guidance through the co-location of hazardous waste treatment with residual municipal waste treatment.

As referred to above, the EPA published the 2023 Annual Report on the implementation of the NHWMP (2021-2027) in 2024 which presents the progress of the recommended actions outlined. According to this report, a key milestone aiming to accelerate the recommendations of the NHWMP (2021-2027) is the publication of the **National Waste Management Plan for a Circular Economy (2024-2030) (NWMP)**. The NWMP is discussed previously in this document in the context of Waste Infrastructure and Recovery, the NWMP contains Targeted Policies (TP) under Focus Area 10: Hazardous Waste, and Focus Area 16: Hazardous Waste Infrastructure:

- *TP16.1: Support the development of additional capacity for the treatment of hazardous waste in accordance with the National Hazardous Waste Management Plan to ensure there is adequate active treatment capacity;*
- *TP16.3: Conduct a review of hazardous waste management capacity and performance during the Covid-19 pandemic with the EPA;*

- *TP16.4: Conduct a business continuity assessment for hazardous waste management capacity with the EPA.*

In this context, the proposed development 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 proximity principles by minimising hazardous waste exports. In line with plan led and evidence-based development which underpin the National Planning Framework objectives and sustainable land-use planning goals, the proposed development 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.

Accordingly, the proposed development may be regarded as being in alignment with both the National Hazardous Waste Management Plan 2021-2027 and the 2023 Annual Report on its implementation as it will contribute to Ireland's goal of self-sufficiency in the treatment in hazardous waste within the State as prioritised and underlined in both policy documents.

2.2.3 Regional Waste Policy

2.2.3.1 Southern Region Waste Management Plan 2015-2021

In February 2024, the three regional waste management plans, including **the Southern Region Waste Management Plan 2015 -2021(SRWMP)**, were consolidated into one National Waste Management Plan for a Circular Economy (2024-2030).

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 approximately 1,700,000[xl].

The approach of the regional waste management plans was 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.

While it has since been superseded by the NWMP, the SRWMP gave regional context into the site-specific priorities of the region. For example, SRWMP confirmed that the development of waste infrastructure in the southern region would be driven by the private sector. The local authorities did not foresee any capital investments and furthermore, the SRWMP stated:

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

A **2021 Evaluation of the Regional Waste Management Plans**[xli] gives more recent insight into recommendations made by the Regional Waste Management Planning Offices (RWMPOs) in order to progress waste management goals in the Southern region.

The evaluation report highlights the need for shared ownership and collaboration across the entire waste sector to successfully implement future waste management plans. It stresses that achieving targets cannot rest solely on the RWMPO's or local authorities, as they lack full control over the sector. Instead, coordinated involvement from all stakeholders—public and private—is essential. The report also calls for a flexible and dynamic approach to planning, capable of adapting to evolving industry conditions, external shocks, and shifting priorities in waste collection and treatment.

Policy A4 of the SRWMP sets a broad 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.

On this Policy A4, the 2021 Evaluation Report states:

> *"National economic or policy instruments to achieve this policy will be supported. Regional Waste Management Planning Offices inputs to planning and other processes consider these principles. This policy remains relevant for the revised or replacement Plan."*

The proposed development is a private sector development, which will provide national thermal recovery capacity for the treatment of non-hazardous wastes in accordance with this policy and in adherence with these principles.

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[5] 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 development aligns with and contributes towards the attainment of European and national energy policy objectives as set out below.

2.3.1 European Energy and Climate Change Policy

In 2016, the European Commission introduced a package of measures to provide the stable legislative framework needed to facilitate the clean energy transition – and thereby taking a significant step towards the creation of the **Energy Union**.

- The aim of the union is to make energy more secure, affordable and sustainable. It is made up of five closely related and mutually reinforcing dimensions:
- Security, solidarity and trust: diversifying Europe's sources of energy and ensuring energy security through solidarity and cooperation between EU countries;
- A fully integrated internal energy market: enabling the free flow of energy through the EU through adequate infrastructure and without technical or regulatory barriers;
- Energy efficiency: improved energy efficiency will reduce dependence on energy imports, lower emissions, and drive jobs and growth;
- Decarbonising the economy: the EU is committed to implementing the Paris Agreement and to retaining its leadership in the area of renewable energy;
- Research, innovation and competitiveness: supporting breakthroughs in low-carbon and clean energy technologies by prioritising research and innovation to drive the energy transition and improve competitiveness.[xlii]

Since 2015, the Commission publishes yearly reports which monitor the implementation and progress of this key priority, to ensure that the Energy Union Strategy is achieved. The most recent, ninth, report on the **State of the Energy Union Report 2024**[xliii] states that significant progress has been made on renewable energy. By the first half of 2024 renewables generated 50% of electricity in the EU but stronger efforts are needed, particularly in the improvement of energy efficiency, to meet 2030 targets. Strengthening energy security remains critical, especially through investment in Europe's infrastructure networks and actions to stabilise energy prices.

New initiatives like the **Clean Industrial Deal**, **Net-Zero Industry Act**, and reforms to the **Electricity Market Design** are also referenced as being key to boosting the resilience and competitiveness of EU industry in global clean technology markets.

[5] Based on experience at the Meath waste to energy facility, the fraction of electricity generated from renewable sources is estimated to be approximately 50%.

The **Clean Energy for All Europeans Package** in 2016 was the first major suite of legislation designed specifically to implement the goals of the Energy Union. This put in place a legislative footing to meet the objectives of the 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 aimed to make the European Union's economy and energy system more competitive, secure and sustainable and sets initial targets for renewable energy and energy savings by 2030. These have since been revised in 2021 by the **"Fit for 55"** package. The "Fit for 55" package underwent further updates in 2022 when the Commission proposed increased ambition on renewable energy and energy efficiency in the **REPowerEU Plan** to respond to Russia's invasion of Ukraine and boost Europe's energy security. The final legislative package is expected to reduce EU net greenhouse gas emissions by 57% by 2030.

REPowerEU also saw revisions to the **Renewable Energy Directive (2009/28/EC) (RED I) and** Renewable Energy Directive (2018/2001/EU) (RED II), and the amending Directive (EU) 2023/2413 (RED III) entered into force in November 2023. The Energy Efficiency Directive (2012/27/EU) (EED I) was first revised by Directive (EU) 2018/2002 (EED II), and later recast as Directive (EU) 2023/1791 (EED III), which entered into force in October 2023. RED III raised the collective target for renewable energy consumption across all sectors in Europe significantly, to at least 42.5% by 2030. Under EED III, the EU set a binding target to reduce final energy consumption by 11.7% by 2030 compared to the 2020 reference scenario, reinforcing the energy efficiency first principle and expanding obligations across sectors.

The Clean Industrial Deal was unveiled by the European Commission in February 2025 as part of the "Green 2.0" agenda. The objective of this deal is to drive decarbonisation in energy intensive industries, support clean tech manufacturing and lower energy costs. It will also involve the adoption of a **Circular Economy Act** in 2026 to accelerate the circular transition and ensure that scarce materials are used and reused efficiently, reduce our global dependencies and create high-quality jobs. The aim of the act will be to have 24% of materials circular by 2030.

The European Commission recognises that "The EU needs to secure access to such materials and reduce dependence on unreliable suppliers. Integrating circularity in our decarbonisation strategy is crucial to making the most of the EU's limited resources." Looking ahead, initiatives under this framework will concentrate on the nexus of circular economy and decarbonisation. In this context, the proposed development is ideally positioned to advance both circularity and emissions reductions, thereby contributing directly to the Union's objectives in this strategic area.

2.3.1.1 Clean Energy for all Europeans Package 2019

In 2019, the European Union comprehensively revised its energy policy framework to support the transition from fossil fuels to cleaner energy sources and to fulfil its commitments under the Paris Agreement on climate change. The adoption of the **Clean Energy for All Europeans Package** represented a significant milestone in the implementation of the Energy Union strategy, originally outlined in 2015.

Building on proposals presented by the European Commission in 2016, the package is comprised of eight new legislative acts.

These include:

- Directive (EU) 2018/844 on energy performance of buildings **(Energy Performance of Buildings Directive – EPBD)**;
- Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources **(Renewable Energy Directive II)**;
- Directive (EU) 2018/2002 on energy efficiency **(Energy Efficiency Directive)**;
- Governance of the Energy Union; Regulation (EU) 2018/1999;
- **Electricity Regulation**; Regulation (EU) 2019/943;
- **Electricity Directive**; Directive (EU) 2019/944;
- **Risk preparedness**; Regulation (EU) 2019/941;

- **ACER**; Regulation (EU) 2019/942.

2.3.1.2 Renewable Energy Directive III (Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652)

The Renewable Energy Directive was first introduced in 2009 as Directive 2009/28/EC. In 2018, the directive was revised and recast as Directive (EU) 2018/2001 (RED II) to align with updated EU climate and energy goals. Since then, the directive has been substantially amended to reflect the evolving energy landscape. In October 2023, Directive (EU) 2023/2413 was adopted, enhancing provisions for streamlining permitting processes, accelerating the deployment of renewable energy technologies, and improving integration across various sectors. The revised Renewable Energy Directive continues to promote renewable energy as a central objective of the EU's energy policy, playing a critical role in reducing greenhouse gas emissions and supporting the EU's broader climate goals, particularly as part of the European Green Deal and REPowerEU initiatives.

The revised Directive provides the following definitions in Article 2:

> *'energy from renewable sources' means energy from renewable non-fossil sources, namely wind, solar (solar thermal and solar photovoltaic) and, geothermal energy, ambient energy, tide, wave and other 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 waste, including industrial and municipal waste of biological origin.*

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 revised Renewable Energy Directive requires the EU to fulfill at least 42.5% of its total energy needs with renewables by 2030, with an aspirational goal of 45%. There is also a requirement for all EU countries to achieve a 10% share of renewable energy in their transport sector. These ambitious targets continue to support the generation of electricity from renewable sources, including through waste-to-energy technology, as part of the broader efforts to reduce emissions and enhance energy security.

The proposed development will generate renewable electricity from the biomass contained in residual waste, thereby contributing toward achieving the EU's renewable energy targets.

Additionally, Member States are obligated to increase the share of renewable energy in the heating and cooling sector by at least 0.8% as an annual average for the period 2021 to 2025, and by at least 1.1% annually for the period 2026 to 2030. Furthermore, heat derived from biodegradable waste and waste heat recovery both contribute toward the renewable energy share in district heating and cooling systems, thereby supporting the overall goals of enhancing energy efficiency and promoting sustainable energy use across various sectors.

RED III Article 2 (9) also states:

> *'waste heat or cold' means unavoidable heat or cold generated as by-product in industrial or power generation installations, or in the tertiary sector, which would be dissipated unused in air or water without access to a district heating or cooling system, where a cogeneration process has been used or will be used or where cogeneration is not feasible;*

While this planning application is solely focused on waste treatment and energy recovery in the form of electricity, it is important to consider, from a broader perspective of integrated waste management, the potential for future opportunities. In this context, it is worth noting that the heat generated by the proposed development could meet the criteria for waste heat as defined in the Renewable Energy Directive and outlined in the Energy Efficiency Directive. Should the opportunity arise in the future to expand into other sectors, this heat could potentially be harnessed to contribute to district heating targets.

2.3.1.3 Energy Efficiency Directive (Directive (EU) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955 (recast) (Text with EEA relevance)) waste-to-energy

The revised **Energy Efficiency Directive ((EU) 2023/179)** (EED) introduces updated targets and requirements aimed at improving energy efficiency across the EU. The European Union is now committed to reducing final energy consumption by 11.7% by 2030, compared to the 2020 reference scenario. Member States are required to contribute to this target through binding national goals, which will encourage the adoption of energy-efficient solutions, including combined heat and power (CHP) and district heating from WtE systems.

A key aspect of the revised directive is the introduction of the "energy efficiency first" principle, which is now legally binding. This principle must be applied in all energy-related policy and investment decisions, ensuring that infrastructure planning—including waste and heating systems—considers whether energy use can be avoided or reduced before pursuing additional energy generation.

Starting in 2035, any district heating system will only be considered "efficient" if it meets the following criteria: it must include at least 50% renewable energy and/or waste heat, with at least 20% coming from renewable energy. The remainder of the energy used may come from waste heat or other low-carbon sources. Furthermore, all new district heating systems must either meet these criteria or have a clear trajectory in place to achieve them by 2035.

Article 26 of this Directive provides that Member States shall ensure that a cost-benefit analysis in accordance with Annex XI is carried out where the following installations are newly planned or substantially refurbished:

> *(a) a thermal electricity generation installation with an average annual total energy input exceeding 10MW, in order to assess the cost and benefits of providing for the operation of the installation as a high-efficiency cogeneration installation;*
>
> *(b) an industrial installation with an average annual total energy input exceeding 8MW in order to assess utilisation of the waste heat on-site and off-site;*
>
> *(c) a service facility with an annual average total energy input exceeding 7MW, such as wastewater treatment facilities and LNG facilities, in order to assess utilisation of waste heat on-site and off-site;*
>
> *(d) a data centre with a total rated energy input exceeding 1MW level in order to assess the cost and benefit analysis, including, but not limited to, technical feasibility, cost-efficiency and the impact on energy efficiency and local heat demand, including seasonal variation, of utilising the waste heat to satisfy economically justified demand, and of the connection of that installation to a district heating network or an efficient/RES-based district cooling system or other waste heat recovery applications.*

The revised Energy Efficiency Directive 2023/1791 came into force on 11 October 2024. Member States have until 11 October 2025 to transpose it into national law.

Therefore, once transposed into Irish law, in the context of the proposed development, such a cost-benefit analysis will be carried out in order to fulfil the requirements of the above Regulations and to ascertain the potential to provide heat and steam to nearby industrial users through the development of a district heating network at the Project site.

The potential for the proposed development to provide steam or hot water to other heat users is also referred to in **Section 3.7.1** of **Chapter 3** ***Alternatives*** and **Section 16.6.1** of **Chapter 16** ***Cumulative Effects, Other Effects and Interactions***, of this EIS. The proposed development will generate renewable electricity from the biomass contained in residual waste. This will contribute towards the delivery of renewable energy targets. Furthermore, given the location of the project site and its proximity to significant industrial facilities, which have large and constant process heat requirements, the proposed development has the potential to contribute towards the achievement of Energy Efficiency Directive targets through the prospective development of a district heating network.

2.3.1.4 Governance of Energy Union and Climate Action in 2018

The Governance Regulation (adopted in 2018) was designed to oversee and track the progress of EU countries towards meeting their climate and energy goals, particularly those set out in the Clean Energy for All Europeans package.

The Governance Regulation sets up a framework for cooperation and monitoring, ensuring that the EU's Energy Union and climate action goals are on track. This regulation enforces transparency, accountability, and national responsibility, creating mechanisms for monitoring progress, reporting, and updating plans as needed.

Under the Governance Regulation, EU Member States are required to submit National Energy and Climate Plans (NECPs) every 10 years (starting from 2021) outlining how they will meet the Clean Energy for All Europeans targets, such as renewable energy share, energy efficiency, and greenhouse gas reductions.

2.3.2 National Energy and Climate Change Policy

2.3.2.1 White Paper Ireland's Transition to a Low Carbon Energy Future 2015-2030

Following extensive consultation on the Green Paper on Energy Policy in Ireland (Department of Communications, Energy and Natural Resources (2014), **the White Paper, Ireland's Transition to a Low Carbon Energy Future 2015-2030**[xliv] was published, with the primary objective of guiding a transition to a low carbon energy system which provides secure supplies of competitive and affordable energy.

The White Paper constitutes a complete energy policy update and sets out a framework to guide policy and the actions that Government intends to take in the energy sector from now up to 2030. The paper takes into account European and International climate change objectives and agreements, as well as Irish social, economic and employment priorities. It sets Ireland's energy policy three core objectives – sustainability, security of supply, and competitiveness. Ireland was a net importer of electricity in 2018, importing 0.25TWh.[xlv]

As Ireland progresses towards a low carbon energy system, this White Paper aims to ensure secure supplies of competitive and affordable energy for Ireland's citizens and businesses, including that generated from renewable energy which will be provided by the proposed development.

The long-term development of Ireland's abundant, diverse and indigenous renewable energy resources is a defining element of this energy policy. Not alone is renewable energy of key environmental importance, it also provides a sustainable, economic opportunity for Ireland, both in terms of providing a secure, domestic, source of energy. It recognises the versatility of waste and other biomass fuels that can be used for heating, transport and power generation, and states how:

- Bioenergy can contribute to broader policy objectives such as waste recovery and rural development;
- It aligns with waste management policy in Ireland i.e. the need to develop efficient ways to extract as much value as possible from waste in accordance with the requirements of the waste hierarchy and the opportunity for waste to be used as an indigenous energy resource;
- Measures in the White Paper also give effect to national waste policy in terms of utilising waste as a resource.

Since the publication of the White Paper in 2015, the Irish Government has launched a new renewable electricity support scheme, entitled **"Renewable Electricity Support Scheme (RESS)."** The purpose of the new scheme is help deliver Ireland's contribution to the EU-wide binding renewable energy target of 42.5% RES out to 2030. The **Irish Government's Climate Action Plan 2025** includes a new commitment that 80% of Ireland's electricity needs will come from renewable energy sources by 2030. This will be mainly delivered through auctions under RESS where electricity technologies will compete on cost through competitive auctions to reach the above target[xlvi]. Auctions are held annually, with the most recent 4th auction held in 2024.

The European Commission concluded that the Irish RESS is in line with EU State aid rules, as it promotes the generation of electricity from renewable sources, in line with the European Green Deal. The **Programme for Government** published in 2025 commits to holding RESS auctions at frequent intervals throughout the

lifetime of the scheme. This will allow Ireland to take advantage of falling technology costs and avoid 'locking in' higher costs for consumers. Overall, the share of renewable electricity generation in Ireland increased from 38.6% to 40.7% from 2022 to 2023.

The **Bioeconomy Action Plan 2023-2025** further emphasises that bioenergy, including through the use of unavoidable waste, can maximise resource efficiency, increase energy security, and help in achieving wider policy objectives.

The proposed development will contribute toward the energy policy pillars of sustainability, security, competitiveness and contribution to the economy by generating renewable energy from indigenous biomass resources.

2.3.2.2 Climate Action and Low Carbon Development (Amendment) Act 2021

The Climate Action and Low Carbon Development (Amendment) Act 2021 provides the legal foundation to guide Ireland's transition towards a climate-neutral economy by 2050. It establishes a binding framework with defined targets and obligations, embedding the necessary structures and processes into law to support the achievement of Ireland's national, EU, and international climate commitments in both the short and long term.

The Act introduces several key measures:

- Establishes a legally binding "national climate objective" to achieve a climate-neutral, resilient, and environmentally sustainable economy by 2050;
- Embeds carbon budgeting into law, requiring rolling five-year carbon budgets with sectoral targets, starting from 2021;
- Requires annual updates of the Climate Action Plan, setting out actions for each sector;
- Mandates the preparation of a **National Long-Term Climate Action Strategy** every five years;
- Holds individual Government Ministers legally responsible for meeting sectoral targets, with annual reporting to the Oireachtas;
- Strengthens the Climate Change Advisory Council, tasking it with proposing carbon budgets and expanding its membership and expertise;
- Requires that the first two carbon budgets collectively achieve a 51% reduction in emissions by 2030, in line with the Programme for Government;
- Obligates each local authority to prepare and update a Climate Action Plan every five years, ensuring alignment with their Development Plans.

Ireland's Climate Action Plan, National Energy and Climate Plan (NECP), and Long-Term Strategy (LTS) for Greenhouse Gas Emissions Reduction are interlinked frameworks guiding national climate and energy policy. The Climate Action Plan provides annual updates on progress and sets out specific actions to meet the targets outlined in the NECP, which outlines Ireland's trajectory to 2030 under EU legislation. The LTS complements these by setting a long-term vision for achieving climate neutrality by 2050, ensuring all plans align with Ireland's overarching climate commitments.

2.3.2.3 National Energy and Climate Plan (NECP) 2021-2030

In accordance with the EU's Governance of the Energy Union and Climate Action Regulation, the Irish Government's draft updated **NECP 2021-2030** was submitted to the European Commission in July 2024. The NECP collates the policies, measures and actions related to energy and climate outlined in a range of government plans: such as the Climate Action Plan, the National Development Plan, and Project Ireland 2040, into one cohesive document. It also presents modelling that illustrates Ireland's current trajectories toward its main European targets. Table 8 in the NECP sets out trajectories for renewable electricity with existing measures i.e., the measures currently implemented, and actions committed to by Government, see **Table 2.2** below.

Table 2.2 Trajectories for renewable electricity with existing measures

Renewable Trajectories	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2040	2050
RES-E %	39%	36.4%	36.8%	39.5%	44.1%	46.4%	50.%	53.7%	56.3%	60.3%	68.9%	87%	96.7%

The proposed development is well-positioned to support Ireland's ambitious renewable electricity targets. By converting the biodegradable fraction of municipal solid waste—recognised as biomass under the Renewable Energy Directive—into electricity, the facility contributes to the renewable energy share in the national grid. This aligns with the NECP's objectives to increase renewable electricity generation and reduce greenhouse gas emissions. Additionally, by diverting waste from landfills and maximising resource recovery, the proposed development plant supports circular economy principles, further reinforcing Ireland's commitment to sustainable energy and waste management practices.

2.3.2.4 Climate Action Plan 2025 (CAP 25)

Where the NECP is an overarching strategic document, the Climate Action Plan is Ireland's national-level implementation plan to operationalise the NECP goals. It is annually updated to track Ireland's progress toward 2030 targets outlined in the NECP, including a comprehensive strategy to achieve 80% renewable electricity by 2030, emphasising the expansion of wind (both onshore and offshore), solar, and other renewable energy sources. This ambitious target is central to Ireland's commitment to reducing greenhouse gas emissions and transitioning to a sustainable energy system.

Published in April 2025, CAP 25 underscores the importance of integrating circular economy principles and enhancing district heating infrastructure. These areas are pertinent to WtE facilities, which can contribute to renewable energy generation by utilising the biodegradable fraction of municipal solid waste—a component recognised as renewable under the EU Renewable Energy Directive.

By converting biodegradable waste into electricity and heat, the proposed development can assist in achieving renewable energy targets and support decarbonisation efforts by diverting waste from landfills. Additionally, the utilisation of waste heat from such facilities can bolster district heating schemes, aligning with CAP 25's objectives to develop policy and legal frameworks for expanding district heating across Ireland.

CAP 25 also reaffirms the country's commitment to transitioning towards a circular economy as a key strategy for reducing greenhouse gas emissions and achieving climate goals. It emphasises the shift away from the linear take-make-waste model, recognising the circular economy as a sustainable alternative that reduces resource consumption and waste. It acknowledges the need to regulate the materials that go to landfill to continue to meet incremental targets under the Landfill Directive. This is done through the diversion of municipal waste from landfill to a higher tier of the waste hierarchy and the proposed development can further maximise recovery of valuable resources through the waste-to-energy process to contribute to the achievement of the new and enhanced targets as set out in the CAP.

It reinforces support for the WFD and the Packaging and Packaging Waste Regulation and confirms the continuation of the Whole of Government Circular Economy Strategy as well as the EPA's Circular Economy Programme 2021-2027. Ireland is already seeing progress, with waste emissions down 9.4% since 2018 and projected to fall by 27% by 2030. Key drivers of this success mentioned within CAP 25 include landfill and recovery levies, strengthened waste segregation, industry-led recycling, and coordinated regional waste planning. These measures underline Ireland's commitment to a circular, climate-resilient economy. The proposed development supports the objectives of CAP 25 by providing essential infrastructure to treat non-recyclable residual waste, thereby reducing landfill dependency, capturing materials (not captured in conventional recycling collection systems) for recycling including critical raw materials, recovering valuable energy resources, and reinforcing Ireland's progress towards a low-carbon, circular economy.

2.3.2.5 Regional Energy and Climate Change Policy - Cork County Climate Action Plan 2024-2029

The Low Carbon Development (Amendment) Act (2021) requires local authorities to prepare a Local Authority Climate Action Plan (LACAP) to meet national emission reductions targets and develop resilience to the impacts of climate change.

The **Cork County Council Climate Action Plan 2024-2029**[xlvii] outlines the Council's strategy to reduce greenhouse gas emissions and enhance climate resilience within the county and is aligned with national objectives.

At a municipal level, it emphasises Cork County Council's commitment to reducing greenhouse gas emissions by 51% by 2030, in line with national targets. It supports the transition to a circular economy, focusing on waste prevention, resource efficiency, and sustainable waste management practices. It highlights the importance of developing infrastructure that supports climate action objectives and includes enhancing waste management systems to align with circular economy principles.

Cork County Council's Plan underscores the need for collaboration with communities, industries, and other stakeholders to achieve climate goals. This cooperative approach may facilitate discussions around the implementation of WtE projects, ensuring they align with local needs and environmental standards.

The Plan's emphasis on the expansion of renewable electricity sources as well as the focus on circular economy principles and sustainable waste management suggests that WtE facilities such as the proposed development, which would convert biodegradable and non-recyclable waste into usable energy, could support the county's renewable energy and emissions reduction targets by diverting waste from landfill, generating renewable electricity, and reducing greenhouse gas emissions in line with broader climate objectives. Looking ahead, it also holds the potential to further contribute to decarbonisation targets through the development of district heating systems—an area identified as a key action in the Plan, which includes both the exploration of such opportunities and support for stakeholders seeking to establish these systems.

From a waste policy and circular economy perspective, the proposed development can support the Cork County Council Climate Action Plan 2024-2029 by contributing to emissions reduction targets, enhancing local waste treatment capacity, and advancing the county's transition to a circular economy through the recovery of energy from non-recyclable residual waste.

2.4 Planning Policy

2.4.1 National Policy

The Department of Housing Planning and Local Government, on behalf of the Government, has prepared and published the National Planning Framework ('NPF') under Project Ireland 2040, the overarching policy and planning framework for the social, economic and cultural development to apply in Ireland to 2040.

The newly launched Project Ireland 2040 contains two parts:

- The National Planning Framework (NPF) First Revision, 2025. The NPF along with the Regional Spatial and Economic Strategies (RSES) will determine how to achieve balanced regional development in Ireland, and
- A National Development Plan (NDP) which complements the Planning Framework detailing how €116 billion worth of investment will be spent over the next 10 years.

Finalisation of the NPF alongside the ten-year National Development Plan puts together one plan to guide strategic development and infrastructure investment and thus represents a coordinated policy between spatial development and capital investment at national level.

2.4.1.1 The National Planning Framework (NPF) – First Revision 2025

Indaver's consultation response to the NPF September 2024 consultation can be found here.

The National Planning Framework (NPF) is the Government's high level strategic plan for shaping the future growth and sustainable development of Ireland's urban and rural areas to the year 2040, with the core objectives of securing balanced regional development and a sustainable 'compact growth' approach to the form and pattern of future development. The NPF alongside the ten-year National Development Plan guide strategic development and infrastructure investment at national level.

Published initially in 2018 by the Department of Housing, Planning and Local Government, the NPF replaced the National Spatial Strategy. The Revised NPF was published in April 2025, replacing the NPF 2018.

The NPF establishes medium-long-term targets and goals for every community across the country. The shared goals set in the Framework, National Strategic Outcomes (NSO), are as follows:

- Compact Growth
- Enhanced Regional Accessibility
- Strengthened Rural Economies and Communities
- High-quality International Connectivity
- Sustainable Mobility
- A Strong Economy supported by Enterprise, Innovation, and Skills
- Enhanced Amenity and Heritage
- Transition to a Carbon Neutral and Climate Resilient Society
- Sustainable Management of Environmental Resources; and
- Access to Quality Childcare, Education and Health Services.

National Strategic Outcome 9: Sustainable Management of Environmental Resources of the Framework states that conserving and enhancing the quality of the natural and environmental resources will become more important in a crowded and competitive world as well as the capacity to create beneficial uses from products previously considered as waste, creating circular economic benefits.

One of the key future growth enablers identified in the Framework for Cork in the NPF is:

Improving sustainability in terms of energy, waste management and resource efficiency and water, to include district heating, water conservation, water reuse and SuDS and the circular economy.

Chapter 9 of the NPF deals with the Climate Transition and Environment, where it identifies a number of overarching aims to address the environmental challenges, including:

- Managing Waste: Adequate capacity and systems to manage waste in an environmentally safe and sustainable manner.'
- Sustainable Water Management: Consideration of flood risk in planning and development management and treating urban waste water.

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

Section 9.2 of the NPF acknowledges that, while Ireland has improved its waste management system, the State is still very heavily reliant on exports for the treatment of residual, recyclable and hazardous waste, and that an increase in the population of around one million people, alongside economic growth to 2040, will put significant pressure on the existing waste management capacity.

While the ultimate aim to deal with the matter is by decoupling consumption from waste generation, as much as possible, the Framework acknowledges that additional investment in waste management infrastructure, and in particular different types of waste treatment, is needed. This is further supported by National Policy Objective 76 which seeks to:

- Sustainably manage waste generation including construction and demolition waste, invest in different types of waste treatment and support circular economy principles, prioritising prevention, reuse, recycling and recovery, to support a healthy environment, economy and society.

The proposed development is in alignment with the NPF as it will be designed to treat the residual waste that cannot be recycled in a safe and environmentally sound manner and will also create renewable electricity. It will accordingly contribute to the sustainable management of waste as provided for in the NPF's National Strategic Outcome 9 which focuses on the sustainable use of water and environmental resources.

Furthermore, the proposed development has the potential to assist in meeting Ireland's renewable heat targets and to reducing Ireland's GHG emissions if it is determined that it is technically feasible and cost effective to develop a district heating network at the proposed development site.

2.4.1.2 The National Development Plan 2021-2030

The National Development Plan (NDP) was published by the Department of Public Expenditure, NDP Delivery and Reform in 2021, and sets out the Government's over-arching investment strategy and budget for the period 2021-2030. It is an ambitious plan that balances the significant demand for public investment across all sectors and regions of Ireland with a major focus on improving the delivery of infrastructure projects to ensure speed of delivery and value for money

The NDP seeks to reach new economic and social goals, while ensuring Ireland maintains and further develops its infrastructure stock to the highest standard throughout the country.

With regards to the Circular Economy Strategy and the Waste Action Plan for a Circular Economy, the Plan identifies private investment to be one of the key strategic investment priorities that will have an effect on the transition to a circular economy and the sustainable management of environmental resources.

The NDP also acknowledges that while the Government's overall focus of waste policy is on prevention and waste minimisation, investment in indigenous waste treatment capacity remains critical to the environmental and economic well-being, and states:

> *''Investment in waste management infrastructure is critical to our environmental and economic well-being for a growing population and to achieving circular economy and climate objectives. Capacity will continue to be built in waste facilities, including anaerobic digestion, hazardous waste treatment, plastics processing, recycling, waste to energy, and landfill and landfill remediation, to meet future waste objectives.''*

The NDP also notes that significant increase in waste infrastructure capacity will be required to separate and process various waste streams at municipal and national levels to achieve new EU legally-binding targets.

One of the key outputs under the NDP's priorities will be to significantly improve the capacity and environmental sustainability of waste infrastructure. Under Chapter 14, of the NDP states that part of Ireland's continuing journey of improving waste performance requires investment in remediating legacy sites through the landfill remediation programme, which is also identified as one of the four strategic investment priorities under the objective. Over €170m has been invested under the programme, during the time of the report.

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.

The Irish Government began a review of the NDP in April 2025, with the outcome published in July 2025. The 2025 review of the NDP focuses on delivering 300,000 additional homes by 2030, supported by major investment in critical infrastructure such as water, energy and transport. This reflects a broader ambition to meet growing demand, improve quality of life, and strengthen Ireland's economic competitiveness. According to the CSO, Ireland's population grew by approximately 400,000 between 2019 and 2024, reaching 5.4 million, and is projected to increase to between 5.6 and 5.76 million by the end of the decade. The NDP prioritises investment in infrastructure that can meet these pressures in a timely and regionally balanced way. Additional measures, such as the establishment of the Accelerating Infrastructure Delivery Taskforce in May 2025, further reinforce the provisions of the NDP and aim to accelerate the delivery of critical infrastructure.

Waste is a by-product of society, and with population growth comes increased waste generation. To manage this responsibly, capacity must be developed domestically in line with the EU waste hierarchy, the proximity principle, and the need to reduce reliance on export. The proposed development will support the delivery of the NDP growth ambitions by providing essential critical waste infrastructure and services required for the hygienic sanitary treatment of waste fundamental to a well functioning society through thermal treatment of residual waste with energy recovery providing energy to the grid, and the extraction of materials from the treated residual waste for recycling and recovery.

2.4.2 Regional Planning Policy

2.4.2.1 Regional Spatial & Economic Strategy (RSES) for the Southern Region 2020-2032

The Regional Spatial & Economic Strategy for the Southern Region (RSES) sets out the objectives and policies for securing balanced regional development in line with the NPF and NDP.

It is noted that at the time of preparation of the RSES, the Waste Management Strategy for The Southern Region 2015-2021 was still in place and has been referenced in the document. While the Waste Management Strategy for The Southern Region 2015-2021 has since been replaced by the National Waste Management Plan for a Circular Economy, the core objective and goals of the plans align, and are still relevant.

Transportation, water services, energy and communications networks, and waste management facilities are among the several factors within the Scope of the RSES.

The RSES aims to build a strong, resilient, sustainable region by providing a number of strategies, which include Strategy 9 which seeks to provide infrastructure and services in a sustainable, planned and infrastructure-led manner to ensure the sustainable management of water, waste and other environmental resources, which also aligns with several Sustainable Development Goals (SDGs) set out by the United Nations.

The RSES notes that circular economy and waste minimisation was the focus of the Waste Management Strategy for The Southern Region, 2015-2021, which seeks to promote waste prevention and reduce dependency on landfill in line with EU and national policy.

The RSES further supports Ireland's move towards a Circular Economy through RPO 108, where it seeks to:

> *'support the work of local authorities, the Regional Waste Management Office and all state bodies in the Region to implement the EU Action Plan for the Circular Economy-Closing the Loop to ensure sustainable patterns of consumption and production in the areas of:*

- *Product Design*
- *Production processes*
- *Consumption*
- *Waste management*
- *From waste to resources: boosting the market for secondary raw materials and water reuse in line with the EU Raw Material Initiative'*

From a regional perspective, the proposed development 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

2.4.3.1 Cork County Development Plan 2022-2028

The Cork County Development Plan 2022, (the Plan, hereunder) states that the Waste Policy set out in the Plan is guided by International, European and National guidelines. 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.

The National Waste Management Plan for a Circular Economy was in draft stages during the preparation of the Plan, but the Plan states that 'The upcoming National Waste Management Plan will incorporate guidance entitled 'Waste Management Infrastructure – Guidance for Siting Waste Management Facilities' which the planning authority will support the implementation of once adopted, and sets out Objective BE 15-14: Waste Prevention and Management:

a. Support the policy measures and actions outlined in

   – - ‘A Waste Action Plan for a Circular Economy Ireland’s National Waste Policy 2020-2025’, and

   – - Southern Region Waste Management Plan 2015-2021, or any successor plans

b. Support circular and climate resilient economy principles and associated strategic infrastructure, prioritising prevention, reuse, recycling and recovery, and to sustainably manage all types of waste by ensuring the provision of adequate waste recovery, recycling and disposal facilities for the county.

Much like the National Waste Policy, the Waste policy set out in the Plan focuses on self-sufficiency in the management of waste. Section 15.12.1 of the Plan states that Cork County Council’s waste policies and objectives aim to minimise waste using the Circular Economy concept, mitigate where possible and adapt to the impacts of climate change; protect and improve ground and surface waters; and provide a clean natural environment.

In relation to hazardous waste management, the Plan sets out the following objective:

Objective BE 15-17: Waste Prevention and Management

d. Support the implementation of the recommendations and policies of the National Hazardous Waste Management Plan 2014-2020

Section 15.12.4 of the Plan notes that a key element of the Green Deal Action Plan is to boost the efficient use of resources by moving to a clean, circular economy, to minimise waste going to landfill and maximise waste as a resource, and that a recycling rate of 65% has been proposed by the European Commission for 2030 as part of the Circular Economy Package.

Furthermore, policy objective ET 13-1(a) of the Plan seeks to ensure that County Cork fulfils its potential in contributing to the sustainable delivery of a diverse and secure energy supply and to harness the potential of the county to assist in meeting renewable energy targets and managing overall energy demand.

It is noted that Section 2.1.14 of the Plan identifies Ringaskiddy as part of the County Metropolitan Strategic Planning Area and sets out Objective CS 2-3, where it seeks to:

> *(a) Recognise the importance of the role to be played by the Cork Metropolitan Area in the development of the Cork ‘MASP’ as identified in the RSES for the Southern Region, in tandem with the development of Cork City, to promote its development as an integrated planning unit to function as a single market area for homes and jobs where there is equality of access for all, through an integrated transport system, to the educational and cultural facilities worthy of a modern and vibrant European City;*
>
> *(b) Recognise Cork Harbour as a unique and strategic asset both nationally and internationally and promote the development of the Cork Harbour Economy as a key driver of economic growth at a metropolitan, county, regional, national and international level, while simultaneously sustainably managing the future development of the Cork Harbour area, taking account of its environmental, ecological, heritage and landscape values.*
>
> *(i) Support the existing Strategic Employment Locations as important economic assets, particularly in terms of public transport provision and linkages to local residential populations.*

Moreover, within the County Metropolitan Area, the Plan identifies Ringaskiddy as one of five Strategic Employment Locations in the County, the others being Carrigtwohill, Kilbarry, Little Island, and Whitegate. It is the objective to promote the development of Strategic Employment Locations suitable for large scale developments at these areas, where such development is compatible with relevant environment, nature and landscape protection policies as they apply around Cork Harbour. The areas are also recognised by the Cork MASP, in particular the potential for foreign direct investment and development by indigenous enterprises.

Accordingly, the Plan sets out Objective EC: 8-3 Strategic Employment Locations

a) Promote the development of Strategic Employment Locations suitable for large scale industrial developments at Carrigtwohill, Little Island, Ringaskiddy, and Whitegate where any such development must be sensitively designed and planned to provide for the protection of any designated sites. Any development must be compatible with relevant environment, nature and landscape protection policies as they apply around Cork Harbour and the protection of residential amenity.

b) Protect lands in these areas from inappropriate development which may undermine their suitability as Strategic Employment locations.

In relation to Industrial Areas, zoned 'I', as is the case in this instance, policy objective ZU 18-16 states that:

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 Locations in this Plan subject to the requirements of National Policy, future Regional Waste Management Plans and the objectives set out in this Plan.

It is therefore the case that, as determined by the Board in the most recent application on the site (PA0045), the overarching land use objective applying to Ringaskiddy, which is also a Strategic Employment Location.

In relation to Cork Harbour, Ringaskiddy is part of the South Cork and Lower Harbour Growth Triangle, along with Carrigaline, Passage West/ Glenbrook/Monkstown, as well as Brinny and Kilumney/Ovens that are located outside of the harbour area).

One of the key strategies set out in Table 8.4 of the Plan for the Cork Harbour includes ''Prioritise investment in placemaking and other infrastructure that supports quality of life to attract employment uses – affordable housing, educational capacity, sustainable travel, public realm, amenities, cultural assets etc., to compliment other job creation initiatives''.

Section 8.7.15 of the Plan identifies Ringaskiddy as a long established location for industrial, chemical and pharmaceutical employment with many of the world's leading pharmaceutical companies located there. The Plan also states that ''there are 343 ha of land zoned for industrial use in Ringaskiddy, and that the Cork County Council will continue to work with all the key stakeholders to ensure that Ringaskiddy maintains its attractiveness as an employment location and also maintains its prominent role as the main FDI location in Ireland. This Plan also supports the continued role of Ringaskiddy as a Strategic Employment Location''.

In relation to Marine Leisure ''it is an aim of this Plan to acknowledge the role of Cork Harbour in developing the marine leisure sector in County Cork and assist in providing a balance between environmental considerations and competing land-uses specifically in relation to the relocation of the Port of Cork and further industrial development in Ringaskiddy''.

In relation to tourism, the Plan, through **Objective TO 10-1(a)**, 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 has prepared a 'Masterplan for Spike Island' which was adopted by the Council in 2012. The ongoing 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 F, 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 S53, S54, S51 and S57. Policy GI 14-13 seeks to protect the character of the views and prospects from scenic routes. Refer to **Chapter 11 *Landscape and Visual 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 development is located in an industrial area designated as a Strategic Employment Location, in which large scale waste facilities will be considered, in accordance with zoning objective ZU 18-16 of the Plan. The proposed development will contribute to a diversity in energy generation in line with policy ET 13-1. 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.

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 MCI 7-4(c) of the Plan.

The proposed development will provide additional employment in a Strategic Employment Location of Cork Harbour without impact on the activities of the Harbour, in accordance with policy objective EC:-8-3(a).

Consistent with policy objective TM: 12-15(e) of the Plan the proposed development will not impact the relocation of port related developments to the preferred location of 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, suitable for the provision of strategic large scale waste treatment facilities.

2.4.3.2 Cork County Development Plan 2022-2028 - Volume 4 South Cork

Section 1.7 of Volume 4 of the Plan sets out the specific policies that apply to Ringaskiddy.

Section 1.7.1 states that:

> *Ringaskiddy is one of the key employment locations in Cork County. Its importance has been recognised in the Plan with its Strategic Employment Location designation. The aim of this Plan is to reaffirm Ringaskiddy's function as a strategic employment centre within the County Metropolitan Cork Strategic Planning Area. It has developed into one of the most significant employment areas of the county.*

Section 1.7.2 of the Plan also states that:

> *The objective for Ringaskiddy is set out in Volume One, Chapter 8 Economy and Employment of this Plan where the stated aim is to promote the development of Ringaskiddy as a Strategic Employment Location suitable for large scale industrial developments which is compatible with relevant environment, nature and landscape protection policies as they apply around Cork Harbour.*

In addition, Section 1.7.3 of the Plan states that:

> *Lands in this area will be protected from inappropriate development which may undermine Ringaskiddy's suitability as a Strategic Employment Centre.*

Section 1.7.51 of the Plan states that:

> *Ringaskiddy is a textbook example of clustering, a theory that contends where one industry is established supplier industries soon follow, as does investment in education, training, research and development, and infrastructure.*

Section 1.7.52 of the Plan further states that:

Having regard to the strategic objectives of the Plan, projected employment targets and land requirement targets for the Electoral Area, it is envisaged that Ringaskiddy will continue to act as a Strategic Employment Location and indeed should see significant industrial employment growth, which will serve the Municipal District and Cork County as a whole.

In this context, policy objective RY-GO-01 seeks to reaffirm Ringaskiddy's focus on industrial and port related roles which reflects its status as a Strategic Employment Location.

The proposed development site is part zoned RY-I-09 and part zoned RY-I-15, as follows (the zoning map from the Plan is included as **Figure 2.2**):

> ***Objective No. RY-I-09:*** *(c.10.19ha) Suitable for the extension of the Third Level Educational campus and enterprise related development including marine related education, enterprise, research and development. Consideration will also be given to established operators in Ringaskiddy for the provision of ancillary office accommodation and for Research and Development facilities.*
>
> *This site is considered inappropriate for any short or full time residential accommodation.*
>
> *Any existing access to the nearby Martello tower which crosses this site should be protected and provision for an open space buffer to any existing access will need to be provided.*
>
> *Areas within this zone may be used by Special Conservation Interest bird species for which the Cork Harbour SPA is designated. Account will be taken of this when considering new development proposals in this area. Part of the site is liable to flooding.*
>
> ***Objective No. RY-I-15:*** *(c. 28.84ha) Suitable for large stand-alone industry with suitable provision for appropriate landscaping and protection of the access points and provision for open space buffer to the Martello Tower and its associated pedestrian accesses. Any development proposals will need to protect the special function and integrity of the setting of the Martello Tower and maintain the existing line of sight from the Martello Tower to the other four fortifications in the Harbour (Fort Camden Meagher, Carlisle Davis, Westmorland and the Martello Tower on Haulbowline Island).*

Notwithstanding the above, the provision of a strategic large-scale waste treatment facility at the site in Ringaskiddy, which is both an Industrial Area and Strategic Employment Area, is endorsed by Objective EC:8-3 of the Cork County Development Plan 2022 and is in accordance with policies for its zoning objective as per ZU 18-16 of the Plan.

In addition, the proposed development is supported by policy objective BE 15-14 of the Cork County Development Plan 2014 in relation to Waste Management, as it is consistent with the provisions of Ireland's national waste policy.

The proposed development is also consistent with the policies of the National Hazardous Waste Management Plan, and also to policy objective BE 15-17 of the Plan.

The proposed development is therefore a plan-led development, located, in an area designated as an Industrial Area that is a Strategic Employment Location where large scale waste treatment facilities are to be considered as dictated by national, regional and local planning policy. The overarching land use objective applying to Ringaskiddy is Industrial, and Ringaskiddy is also a Strategic Employment Location. The provision of a strategic large-scale waste treatment facility at the site is in line with the Plan.

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 proposed development will be designed to meet this need.

2.5.2 Residual Municipal Waste Thermal Treatment Capacity Required

2.5.2.1 National thermal recovery capacity

Recent levels of MSW generation and projections of future MSW generation were presented in the NWMP highlighting a trend of increasing generation reaching projected levels of 3.7-3.8 million tonnes by 2030 taking account of the estimated effect of the planned interventions to incentivise waste prevention and better recycling. The projections analysis showed a shortfall in treatment capacity of residual MSW.

To resolve the current deficit in residual MSW treatment capacity and reduce reliance on exports the NWMP 2024-2030 supports the provision of 200,000 to 300,000 tonnes of additional dedicated thermal recovery capacity for the treatment of non-hazardous residual wastes nationally, to ensure there is adequate active thermal treatment capacity. This is set out in Focus Area 14 Recovery Infrastructure, Targeted Policy TP14.2 of the NWMP as discussed in **Section 2.2.3** above.

To assist planning decisions, the NWMP has for the first time set out the relevant criteria for the type of facility that constitutes "nationally and regionally important infrastructure", supported through Core Policy CP12 in Volume II and Key Deliverable 19 in Volume III of the NWMP 2024-2030. For the thermal treatment of MSW, dedicated thermal treatment plants with a capacity greater than 100,000 tonnes per annum are deemed of national importance. At a capacity of 240,000 tonnes per annum, the proposed development would be categorised as nationally and regionally important infrastructure.

Dedicated waste-to-energy plants are designed to primarily treat residual MSW, run continuously, and are a stable and reliable form of waste treatment. During the COVID-19 pandemic restrictions on construction activity negatively impacted cement plant operations in Ireland resulting in reduced treatment capacity which caused waste supply chain disruption. By prioritising dedicated thermal treatment plants, it reduces reliance on vulnerable waste treatment options such as co-processing at cement kilns which is linked to demand for a manufactured product and exposed to potential shocks to the market.

Tables 5.5 & 5.6 of the NWMP present data on consented thermal recovery capacity in Ireland which shows that the majority of the capacity is located in the Eastern-Midlands Region (which currently holds 89% of consented thermal recovery facilities). The Southern Waste Region despite it representing 33% of the national population only has 2% of the consented national thermal recovery capacity which does not include dedicated thermal recovery treatment.

The SEA Statement on the NWMP noted in Section 6.5.2 (Scale of Thermal Treatment) that:

- There are six thermal recovery facilities operating in Ireland with the necessary consents to treat residual municipal solid waste;
  - Recovery - dedicated thermal treatment at two waste-to-energy facilities: 910,000 tonnes (fully utilised);
  - Recovery - co-processing at four cement plants: 452,875 tonnes (typically only 64% capacity employed or 310,000 tonnes due to selection requirements for waste type and calorific values), and
- The Eastern-Midlands Region is the only region in the country to have dedicated thermal recovery treatment available at two waste-to-energy facilities, with a total of 4 active facilities authorised and a further 65,000 tonnes of MSW capacity pending.

It finds that Policy TP14.2 supports an additional 200,000-300,000 tonnes of thermal recovery capacity. The NWMP indicates that the Eastern-Midlands Region is currently the only waste region with dedicated thermal recovery capacity identifying a regional imbalance. The proposed development, with its location in the southern region, will address this imbalance.

Further pressure on residual MSW capacity in Ireland is being experienced as the State must reduce the share of municipal waste landfilled to 10% or less by 2035. There are three active landfills in Ireland. The current planning permission for the landfill at Ballynagran expires in 2026 and Drehid landfill has restricted capacity until a revised licence is issued likely in 2026. The NWMP stated that the continued demand for landfill for the disposal of residual municipal waste currently exceeds the available capacity on an annual basis.

It is important that the limited landfill space is reserved for materials that can only be managed through landfill and that dedicated thermal treatment of residual MSW is in place to support achievement of targets which the proposed development can support in a regionally balanced way.

2.5.2.2 Export of Municipal Waste

The NWMP reports that "the State has a continued reliance on export to manage residual MSW and other waste streams which is unsustainable and while an emphasis on prevention and reuse may reduce this reliance, there remains a need for additional indigenous recovery infrastructure which is supported by this Plan in Focus Area 14."

It further states there is a waste treatment capacity deficit within the State which is illustrated by high levels of waste export. Reliance on export is not sustainable and the identification of existing and future critical infrastructure for the final treatment of municipal waste is essential to protect, promote and ensure continuity of supply in the market.

The NWMP continues to say that with limited indigenous thermal treatment and landfill capacity available, the State is currently reliant on the export market for treatment of a proportion of residual municipal waste. EPA waste statistics for 2021 show that 1,191,086 tonnes were exported for final treatment. This current situation carries inherent risk which could escalate if international markets or facilities were interrupted or became unavailable. Approximately 38% of total municipal waste was exported for treatment outside the State. Of the municipal waste recycled, 80% was recycled outside the State. The quantity of municipal waste exported for energy recovery by thermal treatment was 382,042 tonnes (representing 29% of the 1,312,957 tonnes of municipal waste managed for thermal treatment with energy recovery) in 2021. The continuing volumes of municipal waste exported highlights the shortfall of indigenous thermal treatment capacity available within the State.

The thermal treatment export market is challenging and while low cost thermal treatment markets in other EU Member States have been driving the levels of waste export for residual municipal waste in recent years, new challenges for waste exports include increasing shipping costs, the introduction of import levies to some countries and the requirement for the removal of organic fines in some States. The impact of climate change is also being experienced as milder winters in Northern Europe are lowering the demand for residual municipal waste exports from Ireland consequently the residual municipal waste originally destined for thermal recovery may be landfilled which is a lower sustainability outcome.

As noted above, the NWMP 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 proposed development, will provide indigenous thermal recovery capacity in line with the NWMP that will in turn help to reduce exports and enable the State to become more self-sufficient and aligned with the proximity principle.

2.5.3 Hazardous Waste Thermal Treatment Capacity Required

2.5.3.1 Hazardous Waste

The National Hazardous Waste Management Plan (NWHMP) for the Republic of Ireland covers a six-year period from 2021 to 2027. It sets out the priorities to be pursued over these six years and beyond to improve the prevention and management of hazardous waste. The purpose of this plan is to protect the environment and human health in Ireland through best-practice management of hazardous wastes.

One of the five key objectives in the NHWMP pertains to the principles of self-sufficiency and proximity which is reiterated in the NPF stating that planning for waste treatment requirements to 2040 will require "Development of necessary and appropriate hazardous waste management facilities to avoid the need for treatment elsewhere." The NHWMP further notes that one of the overarching strategic issues that must be addressed to increase self-sufficiency and reduce reliance on hazardous waste export is the deficit in capacity for the substantial waste stream currently exported for thermal treatment (i.e. co-incineration, use as fuel or incineration).

The EU through the WFD and WSR is directing Member States to install hazardous waste treatment infrastructure to treat their own waste domestically.

For this reason, Transfrontier Shipment Licences (TFS) approval under the WSR, which are required for the controlled export of waste, are becoming harder to secure for hazardous waste disposal exports. Each TFS for disposal must be justified and the risk of refusal will grow to encourage Member States to manage their own waste. This poses a risk to Ireland's current reliance on the export market for the treatment of hazardous waste.

Authorised hazardous waste treatment in Ireland is carried out either on-site at the industrial facility where the waste was generated (under the relevant conditions of an EPA licence) or offsite at authorised waste treatment facilities. Over half of the total hazardous waste managed is exported for treatment. The other portion is managed onsite or transferred offsite for disposal/recovery within Ireland.

As noted previously in this Chapter, in order to reduce the level of these exports and improve self-sufficiency, the NWMP supports the development of additional capacity for the treatment of hazardous waste in accordance with the NHWMP to ensure there is adequate active treatment capacity (Focus Area 16 Hazardous Waste Infrastructure, Targeted Policy TP16.1) and enhance national self-sufficiency with the development of sustainable waste management infrastructure where feasible and viable (Focus Area 11 Infrastructure (Regulatory), Targeted Policy TP11.2). Furthermore, the increase in hazardous waste exported abroad for treatment in 2022 underlines the need for indigenous treatment capacity which is capable of contributing to the State's self-sufficiency requirements for the recovery of hazardous waste as set out in both the NHWMP and the recent Progress Report on its implementation.

2.5.3.2 All Island Solution to Hazardous Waste

The NHWMP 2021-2027 states that there are mutual benefits to be realised for Ireland and Northern Ireland from taking all-island approaches to some environmental issues, including management of hazardous waste. It further states "in the context of facilitating and regulating the movement of hazardous waste across the border for treatment, there is a need to establish new arrangements on this issue." A key recommendation made in the NHWMP 2021-2027 is to provide for all-island approaches on hazardous waste issues and establish a working group with Northern Ireland authorities to maximise opportunities for co-ordinated management and enforcement of hazardous waste activities. The 2023 Annual Report on the National Hazardous Waste Management Plan 2021-2027 published in 2024 states that DECC will seek to engage with their counterparts in the Northern Ireland Executive to establish if they can support the creation of such a working group.

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 previously stated 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'.*

2.5.3.3 Capacity Required to Treat Hazardous Waste Streams

The proposed development design would allow for 24,000 tonnes per annum of suitable hazardous waste which has the potential to help reduce the remaining gap in thermal treatment capacity.

By combining the management of non-hazardous residual municipal solid waste (MSW), 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 Focus Area 11 Infrastructure (Regulatory) of the NWMP and support Focus Area 16 Hazardous Waste Infrastructure NWMP Targeted Policy TP16.1 Support the development of additional capacity for the treatment of hazardous waste in accordance with the National Hazardous Waste Management Plan to ensure there is adequate active treatment capacity.

The NHWMP 2021-2027 states that there is currently no commercial hazardous waste landfill or hazardous waste incinerator in Ireland. This lack of infrastructure is a risk to the state. While the EU single market gives security of movement, notwithstanding stricter TFS requirements, there are risks that export markets for hazardous wastes could close at short notice because of lack of capacity or cost factors.

A key recommendation in the NHWMP is to strengthen knowledge of national hazardous waste capacity to inform infrastructure development and contingency planning, in accordance with application of the proximity principle which aligns with the WAPCE action to support indigenous waste management treatment capacity and infrastructure in order to reduce risk to the State.

2.5.4 Energy Recovery

The proposed development 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 an 80% share of electricity from renewable sources in gross final consumption by 2030.

In 2023, according to the SEAI Energy in Ireland 2024 Report[xlviii], renewable energy in Ireland contributed 15.3% of Gross Final Energy Consumption, just over a third of the way towards Ireland's binding 2030 target. In its National Energy Projections Report 2024[xlix] the SEAI has run scenarios of targets and assumptions for year-end renewable electricity capacity for wind and solar and shows there is a risk of failing to meet the 2030 target.

The majority of renewable electricity capacity has been delivered by wind turbines to date, and so the contribution of renewable electricity from biomass at the proposed development will not only support the achievement of the target but will also help to diversify Ireland's renewable energy supply.

The Irish Government's Climate Action Plan 2021 sets a target of 80% renewable electricity by 2030.

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 Circular Economy Package through the amended Directives on Waste and Landfilling and the NHWMP require that Ireland should be self-sufficient in waste management. Indeed, the NHWMP, NWMP 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 NWMP 2024-2030 includes 200,000-300,000 tonnes capacity for residual municipal 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 NWMP notes that the required infrastructure will not be delivered by the Local Authorities as the investment is anticipated from the private sector. The NDP also identifies private investment to be one of the key strategic investment priorities that will have an effect on the transition to a circular economy and the sustainable management of environmental resources. The combined approach to the management of residual MSW and suitable hazardous waste by Indaver for the proposed development will contribute significantly to the attainment of these objectives.

Moreover, the energy recovery from residual waste at the proposed development will help Ireland to achieve its renewable energy targets.

From a national planning policy perspective, the National Planning Framework, specifically provides that planning for waste treatment requirements to 2040 will require waste-to-energy facilities which treat residual waste that cannot be recycled in a sustainable manner. In this regard, the proposed development is in alignment with this objective and the broader overarching aim of the Framework centred on achieving balanced regional and sustainable development.

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

The Cork County Development Plan 2022-2028 states that the provision of strategic large-scale waste treatment facilities will be considered in 'Industrial Areas' designated as Strategic Employment Locations in the Plan subject to the requirements of National Policy, future Regional Waste Management Plans and the objectives set out in this Plan.

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

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

The proposed development may be regarded as warranted from an EU perspective given that its development fulfills the objectives of the Circular Economy Package including the amended Directives on Waste and Landfill and a number of regulations pertaining to climate change and energy efficiency.

In addition, it may also be justified from the national policy perspective as it adheres to the requirements laid out in the National Waste Management Plan, the National Hazardous Waste Management Plan and may be regarded as a plan-led development, consistent with regional and national planning policy including the National Planning Framework.

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