

Appendix 9.1

**Compliance with Section 15 of the Climate Action and
Low Carbon Development Act (Amended) 2021**



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TABLE OF CONTENTS

9. APPENDIX 9-1	9-2
9.1 Compliance With Section 15 Of The Climate Action & Low Carbon Development Act (Amended) 2021.....	9-2
9.2 References.....	9-8

9. APPENDIX 9-1

9.1 Compliance With Section 15 Of The Climate Action & Low Carbon Development Act (Amended) 2021

Chapter 9 Climate of the EIS presents an assessment of the impact of the proposed Ringaskiddy Resource Recovery Centre on climate (hereafter referred to as the 'proposed development'). Chapter 9 considers the balance between the avoidance of emissions that would otherwise be produced in the generation of electricity from fossil fuel-based power stations that is displaced by electricity produced by the proposed development and the displaced emissions from landfilling of waste and emissions of greenhouse gases from the proposed development. Full details of this assessment are outlined in Chapter 9 of the EIS.

Section 15 of the Climate Action & Low Carbon Development Act (Amended) 2021 states that:

- (1) *"A relevant body shall, in so far as practicable, perform its functions in a manner consistent with:*
 - (a) *the most recent approved climate action plan,*
 - (b) *the most recent approved national long-term climate action strategy,*
 - (c) *the most recent approved national adaptation framework and approved sectoral adaptation plans,*
 - (d) *the furtherance of the national climate objective, and*
 - (e) *the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State."*

The proposed development is aligned with the above-mentioned plans, strategies and objectives as outlined in Sections 9.2 to 9.5 below.

9.1.1 The Most Recent Approved Climate Action Plan

In relation to 15.1(a), in respect of the most approved climate action plan (CAP25) ⁽²⁾, the proposed development is fully aligned with the CAP24/CAP25¹ and all relevant climate policies. CAP24⁽¹⁾, as noted in the footnote should be read in conjunction with CAP25 and has greater details on the relevant policy measures which are currently being implemented to address climate change. In relation to 15.1(a), CAP24 states that methane contributes 84 to 86 times more to global warming per unit of mass than carbon dioxide during the first twenty years, and thus at COP26 in 2021 ⁽³⁾, 121 countries (including Ireland and the wider EU) signed up to 'The Global Methane Pledge' which:

"pledges to collectively reduce methane emissions by 30% between 2020 and 2030. This 30% methane reduction target is a collective one which will be accomplished by reducing methane emissions across various sectors, including the production of energy, agriculture, and waste management. Ireland will reduce the fugitive methane emissions which arise from the production and transportation of fossil fuels, especially natural gas, by increasing renewable energy and decreasing the demand for fossil fuels. Waste can also contribute to methane emissions. We will reduce methane from waste by sending less waste to

¹ "Climate Action Plan 2025 builds upon [last year's Plan](#) by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings and it should be read in conjunction with Climate Action Plan 2024". [Climate Action Plan 2025](#) (underline added)

landfill by 2030, by reducing waste overall, by adopting a circular economy which ensures products are renewable and reusable, and by ensuring that waste is a last resort... (P. 383, CAP24)

Thus, GHG emissions associated with the proposed development will be in line with Section 20.3.6.3 of CAP24 which stresses the importance of reducing methane emissions from landfilling.

CAP25 also stresses the importance of the need for greater renewable energy in the national grid in order to meet the 2030 interim target and the 2050 target. In this regard, during the incineration of waste at the proposed development, of which approximately 51.9% will be biogenic and thus renewable, the thermal energy generated will be recovered and converted into electrical output. The electrical energy generated (21 MW_e), minus the plants electrical demand (2.5 MW_e), will be available to the National Grid (18.5 MW_e).

CAP25 also outlined a number of waste-related measures in the National Waste Action Plan for a Circular Economy including:

- The European Union (Household Food Waste and Bio-Waste) (Amendment) Regulations 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.
- Extended producer responsibility schemes are now in place for wet wipes, balloons and fishing gear since 31st December 2024.

Waste-to-energy does not destroy waste, but converts it to ash, a large proportion of which is suitable for recovery or recycling, for example in road construction. Ferrous and non-ferrous metals within the ash can also be recovered for recycling. Having regard to the foregoing, the Proposed Development is in accordance with the provisions of CAP24 and CAP25.

In relation to 15.1(a), in respect of the most recently approved climate action plan (CAP25), the proposed development is fully aligned with the CAP25 and all relevant climate policies. Based on the information provided in Chapter 9 Climate and in the application as whole, the foregoing analysis demonstrates that the planning authority can be satisfied that, by granting permission for the proposed development, it would, in so far as practicable, be performing its functions in a manner consistent with Section 15.1(a).

9.1.2 The Most Recent Approved National Long-Term Climate Action Strategy

In relation to 15.1(b), the Long-term Climate Action Strategy (DECC, 2024a)⁽⁴⁾ was published in 2023 and updated in 2024. In relation to electricity, the Government commits to the full decarbonisation of the electricity system by 2050.

In relation to the diverting waste from landfilling and reducing methane emissions, the Long-term Climate Action Strategy states that “*The IPCC assessment reports also considered long-term trajectories for global emissions of nitrous oxide and methane and found that most scenarios which stay within global warming of 1.5°C require very significant reduction in emissions of these gases but that global emissions do not need to reach zero nor would it be feasible for them to do so.*” (DECC, 2024a) ⁽⁴⁾.

The Long-term Climate Action Strategy outlined the importance of (i) completing the actions in the Climate Action Plan, (ii) greater demand side management, (iii) better annual forecasting for the electricity and gas systems and (iv) security of gas supply infrastructure, particularly in the context of electricity generation.

The indicative pathway outlined in the Long-term Climate Action Strategy for electricity includes:

- Build-out of renewable generation capacity, including onshore wind, offshore wind, and solar PV,
- Deployment of zero emissions gas to manage inter-seasonal variability,
- Upgrade of transmission and distribution networks to support significantly increased electricity demand in 2050.

In terms of electricity, the Long-term Climate Action Strategy states:

"Ireland will continue its efforts to decarbonise the electricity sector by taking advantage of its significant renewable energy resources in a way that is competitive, cost-effective and ensures the security of our electricity supply. By doing this, we will also decrease our dependence on imported fossil fuels. As Ireland decarbonises its energy system, demand for electricity will increase and total demand for natural gas will decrease. Ireland must ensure that its decarbonisation efforts are underpinned by security, and affordability, in how we access and use our energy resources" (P. 37 DECC, 2024a).

The proposed development is in line with the Long-term Climate Action Strategy as the incineration of waste at the proposed development, of which approximately 51.9% will be biogenic and thus renewable, will lead to thermal energy being generated which will be recovered and converted into electrical output. The electrical energy generated (21 MWe), minus the plants electrical demand (2.5 MWe), will be available to the National Grid and will displace base load fossil-fuel generation such as natural gas emissions from Combined Cycle Gas Turbines (CCGTs).

Based on the information provided in Chapter 9 Climate of the EIS and in the application as whole, the foregoing analysis demonstrates that the planning authority can be satisfied that, by granting permission for the proposed development, it would, in so far as practicable, be performing its functions in a manner consistent with Section 15.1(b).

9.1.3 The Most Recent Approved National Adaptation Framework And Approved Sectoral Adaptation Plans

In relation to 15.1(c), which refers to the most recent approved national adaptation framework and approved sectoral adaptation plans, the National Adaptation Framework (NAF) (DECC, 2024b) ⁽⁵⁾ has outlined several actions to help ensure a targeted approach to achieving climate resilience into the future. These include:

- Putting in place updated National Guidance to Sectors for the preparation of Sectoral Adaptation Plans (SAPs),
- Local authorities to adopt Local Authority Climate Action Plans,
- Formalising long term operational support for key sectors,
- Drive community outreach, educating the public on risks, opportunities and impacts of climate change in Ireland and globally,
- Increasing awareness around climate adaptation and resilience,
- Integrating climate adaptation into key national plans and policies.

The NAF (DECC, 2024d) further states that in terms of specific actions:

"In response to current and potential future impacts of climate change, there has been a surge in the implementation of relevant policies, tools and mechanisms at the national level to both mitigate and adapt to climate change. Given that the effects will be experienced for decades to come, it is crucial to establish robust, actionable, and effective measures and strategies to prepare for and respond to changing climate

conditions. Climate adaptation is essential to reduce vulnerabilities and strengthen resilience to safeguard communities, sectors, regions and ecosystems against climate-related impacts. " (page 39)

The NAF (DECC, 2024b) defines climate resilience as:

"The capacity of a system, whether physical, social, or ecological, to absorb and respond to climate change and, by implementing effective adaptation planning and sustainable development (including governance and institutional design), to reduce the negative climate impacts while also taking advantage of any positive outcomes." (Page 18)

The Electricity & Gas Networks Sector Climate Change Adaptation Plan (DECC, 2022) ⁽⁶⁾ identified the key climate impacts for the energy sector as:

- Flooding / changes in precipitation / extreme events,
- Temperature rise,
- Sea level rise,
- Changes in wind energy content.

As outlined in Section 9.5.2 of Chapter 9 Climate of the EIS, climate proofing of the proposed development was undertaken using the approaches outlined in the *Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment* (EC, 2013) ⁽⁷⁾ and *IEMA EIA Guide to Climate Change Resilience and Adaptation* (IEMA, 2020) ⁽⁸⁾. Both documents outline a methodology for undertaking a risk assessment where there is a potentially significant impact on the project receptors due to climate change. The approach to the assessment is based on the following steps:

- Identify potential climate change risks to a project;
- Assess these risks (potentially prioritising to identify the most severe); and
- Formulate mitigation actions to reduce the impact of the identified risks.

Table 9.3 and 9.4 of Chapter 9 Climate of the EIS outlines the GHGA significance criteria and Vulnerability Matrix respectively based on this approach.

Under Section 9.5.2 of Chapter 9 Climate of the EIS "*Impact of Climate Change on the Operational Phase*", it was noted that climate change has the potential to alter weather patterns and increase the frequency of rainfall in future years. Changes in climate may lead to a variety of impacts including:

- Increased average temperatures will lead to a greater requirement for cooling of the proposed development leading to greater energy use and associated GHG emissions;
- Increased rainfall will lead to a greater risk of flooding;
- Periods of drought may lead to reduction in water availability.

Section 9.4.3 of Chapter 9 Climate of the EIS noted that there is:

"A conservative site flood defence level was proposed for the site (4.55mOD) which factored in a 200-year tidal level, a 1.00m climate change allowance and the nature of the proposed development whereby flooding of the site may lead to negative impacts on the environment. This study informed part of the design for the L2545 road upgrade and the proposed raising of the site ground levels."

Thus, in line with the methodology outlined in Table 9.13 of Chapter 9 Climate of the EIS the likelihood of extreme weather and flooding was assessed to be of *"low likelihood and with a low or medium exposure leading to a finding of low vulnerability and thus a non-significant impact."*

In relation to 15.1(c) which refers the most recent approved national adaptation framework and approved sectoral adaptation plans, national and sectoral adaptation plans and 15.1(e) *"adapting to the effects of climate change on the state"*, a detailed flood risk assessment has been completed for the proposed development and adequate attenuation and drainage have been designed to account for increased rainfall in future years.

In relation to extreme winds, the appropriate wind loadings are to be calculated in line with the requirements of IS EN 1991-1-4. Lightning protection will be provided for the buildings and designed by a specialist. Hail and fog are not predicted to significantly affect the buildings due to their design.

In relation to wildfires, the *Think Hazard!* tool developed by the Global Facility for Disaster Reduction and Recovery (GFDRR) (2025) ⁽⁹⁾, indicates that the wildfire hazard is classified as medium for the Cork area. This means that there is between a 10% to 50% chance of experiencing weather that could support a problematic wildfire in the project area that may cause some risk of life and property loss in any given year. Future climate modelling indicates that there could be an increase in the weather conditions which are favourable to fire conditions, these include increases in temperature and prolonged dry periods. However, due to the location of the proposed development the risk of wildfire is significantly lessened and it can be concluded that the proposed development is of low vulnerability to wildfires.

Landslide susceptibility mapping developed by GSI indicates that the proposed development is not within an area that is susceptible to landslides and there are no recorded historical landslide events at the location of the proposed development. It can be concluded that landslides are not a risk to the proposed development site.

At the detailed design stage chosen building materials will be high quality, durable and hard-wearing and chosen to withstand increased variations in temperature in the future as a result of climate change. Snow loads are to be calculated in line with the requirements of IS EN 1991-1-3 and new Met Eireann reports and mapping published in 2022.

Thus, the granting of permission for the proposed development will not be inconsistent with the national and sectoral adaptation plans. Based on the information provided in Chapter 9 Climate of the EIS and in the application as whole, the foregoing analysis demonstrates that the planning authority can be satisfied that, by granting permission for the proposed development, it would, in so far as practicable, be performing its functions in a manner consistent with Section 15.1(c) and Section 15(e).

9.1.4 The Furtherance Of The National Climate Objective

In relation to 15.1(d) the national climate objective, CAP25 has stated that:

"Under the Climate Action and Low Carbon Development (Amendment) Act 2021, Ireland's national climate objective requires the State to pursue and achieve, by no later than the end of the year 2050, the transition to a climate-resilient, biodiversity- rich, environmentally sustainable and climate-neutral economy. The Act also provides for a reduction of 51% in GHG emissions by 2030, compared to 2018 levels.

The European Climate Law set legally binding EU-wide targets of reducing net GHG emissions by at least 55% by 2030, compared to 1990 levels, and achieving net-zero GHG emissions by 2050. Ireland will play its part in achieving the EU-wide 2030 target by meeting its binding targets under the Emissions Trading Scheme, Effort Sharing Regulation and Land Use, Land Use Change and Forestry Regulation" (CAP25, page 15)"

The proposed development aligns with the national climate objective as the proposed development will divert waste from landfilling and thus reduce methane emissions and secondly will generate renewable electricity through the combustion of biogenic waste. CAP25 also stresses the importance of the need for greater renewable energy in the national grid in order to meet the national climate objectives.

Based on the information provided in Chapter 9 Climate of the EIS and in the application as whole, the foregoing analysis demonstrates that the planning authority can be satisfied that, by granting permission for the proposed development, it would, in so far as practicable, be performing its functions in a manner consistent with Section 15.1(d).

9.1.5 The Objective Of Mitigating Greenhouse Gas Emissions And Adapting To The Effects Of Climate Change In The State

In regard to 15.1(e) the objectives of mitigating greenhouse gas emissions, the proposed development has the following benefits which will all help to mitigate greenhouse gas emissions:

- I. The proposed development will replace activities which have a higher GHG profile. As outlined in Section 9.5.1 of Chapter 9 Climate of the EIS, the proposed development will lead to lower net greenhouse gas emissions than landfilling when energy recovery under both scenarios is considered.
- II. A range of measures will be employed which is in line with "good practice" as outlined in IEMA (IEMA, 2022) including the following:
 - During the treatment of waste at the proposed development, the thermal energy generated by the burning of waste will be recovered and will give an electrical output of about 21 MW_e with a net electrical output from the plant for export to the national grid of 18.5MW_e (see Table 9.9 of Chapter 9 Climate of the EIS). Thus, the export of 18.5MW_e will give a direct benefit in terms of GHG emissions which would have been released in the production of 18.5MWe from fossil-fuel burning power stations.
 - Additional energy efficiency measures to be employed in the proposed development include:
 - Low boiler exit temperature – maximise the energy extraction from the flue gases for conversion into steam and electricity.
 - Requirement that the boiler must reach a minimum of 80% efficiency in energy conversion from the waste.
 - Selection of a dry flue gas cleaning process which allows for a lower boiler exit temperature.
 - Using an economiser to reduce the boiler exit temperature and transferring this heat to the boiler feedwater system.
 - Insulation of the furnace, boiler and steam-condensate network to minimise heat losses.
 - Specifying a low energy consumption system for NO_x reduction- e.g. SNCR as opposed to SCR.
 - Specifying the optimum superheated steam temperature and pressure parameters to ensure the most efficient conversion from thermal energy to electrical energy in the turbine and generator set.
 - Specifying a turbine suited to high energy efficiency and maximising the expansion of steam to a very low pressure.
 - Allowance in the design for heat off-take for an industrial heat network in the future, should one be built.
 - Specifying that secondary air must be drawn from the main process building which is already pre-heated.

- DCS control system will allow of fine tuning of the process and ongoing monitoring of key process data to ensure the best energy efficiency of the process.
- VSD's will be specified where possible to optimise plant electrical consumption in response to the varying needs and demands of the process.
- LED lighting will be specified where possible in the plant to reduce plant energy consumption and overall plant efficiency.
- EMS certified to ISO14001 will be in place to ensure that energy audits are carried out at regular intervals to ensure further opportunities for the improvement of energy efficiency on site is ongoing.

Based on the information provided in Chapter 9 Climate of the EIS and in the application as whole, the foregoing analysis demonstrates that the planning authority can be satisfied that, by granting permission for the proposed development, it would, in so far as practicable, be performing its functions in a manner consistent with Section 15.1(e).

In summary, the proposed development will divert waste from landfilling and thus reduce methane emissions and secondly will generate renewable electricity through the combustion of biogenic waste. Economy-wide reductions that Ireland achieves towards its own national periodic targets, 2030 to 2050 (and intermediate quantitative targets), will be contributed to by the reductions achieved by those Irish installations that operate to reduce emissions relative to existing emission sources. The 2050 target as outlined under the EU Climate Law is one of achieving climate neutrality ('Net Zero') by 2050 and thus aligns with the commitment Ireland has undertaken under the Climate Action and Low Carbon Development Act 2015 (as amended in 2021) and all reductions achieved by Irish installations will contribute towards that.

Based on the above analysis of the different aspects of the statutory obligations under Section 15, it is considered that a grant of permission for the proposed development would be in compliance with the planning authority's obligations under Section 15 as a whole.

9.2 References

- [1] Government of Ireland (2024) Climate Action Plan 2024
- [2] Government of Ireland (2025) Climate Action Plan 2025
- [3] Homepage | Global Methane Pledge
- [4] DECC (2024a) Long-term Climate Action Strategy
- [5] Department of Environment Climate and Communications (DECC) (2024) National Adaptation Framework 2024
- [6] DECC (2022) Electricity & Gas Networks Sector Climate Change Adaptation Plan
- [7] European Commission (2013) Climate Change and Biodiversity into Environmental Impact Assessment
- [8] IEMA (2020a) EIA Guide to: Climate Change Resilience and Adaptation.
- [9] Global Facility for Disaster Reduction and Recovery (GFDRR) ThinkHazard! Tool. Available online at: <https://thinkhazard.org/en/>