

Section 15(1) of the Climate Action & Low Carbon Development Act (Amended) 2021 Alignment

This note discusses in detail how the Uisce Éireann ('the Applicant') Mortarstown Wastewater Treatment Plant Upgrade (the 'Proposed Development') is aligned with the plans, strategies and objectives outlined in Section 15(1) of the Climate Action & Low Carbon Development Act (Amended) 2021.

Section 15(1) 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."

This note is to be read in conjunction with Chapter 8 (Climate) of the Environmental Impact Assessment Report (EIAR) submitted as part of the planning application. This note provides a structured response to each of the requirements (a–e) set out under Section 15(1) of the relevant legislation. Each requirement is addressed individually, however there is some commonality among them, as all relate to measures and strategies aimed at reducing greenhouse gas (GHG) emissions. The purpose of this note is to assist the relevant body in its assessment of the application.

Requirements (a), (b), (d) and (e) relate to the GHG assessment undertaken within the EIAR Climate Chapter and the proposed mitigation measures to reduce emissions. Requirements (c) and (e) concern the Climate Change Risk Assessment contained in Chapter 8 (Climate), which evaluates the vulnerability of the Proposed Development to climate-related hazards and sets out the adaptation measures required.

Section 15.1(a) the most recent approved Climate Action Plan 2025 (CAP25)

The first *Climate Action Plan* (CAP) was published by the Irish Government in June 2019 (Government of Ireland, 2019). The *Climate Action Plan 2019* outlined the current status across key sectors including Electricity, Transport, Built Environment, Industry and Agriculture and outlined the various broadscale measures required for each sector to achieve ambitious decarbonisation targets. The 2019 CAP also detailed the required governance arrangements for implementation including carbon-proofing of policies, establishment of carbon budgets, a strengthened Climate Change Advisory Council and greater accountability to the Oireachtas. The fifth and most recent climate action plan, CAP25, was published in April 2025 (Government of Ireland, 2025).

In December 2023, CAP24 was published, establishing key actions to deliver a 51% reduction in GHG emissions by 2030 (compared to 2018 levels) and achieve climate neutrality by 2050 (Government of Ireland, 2023). The updated and current CAP25, published in April 2025 (Government of Ireland, 2025), builds on the progress of the previous four iterations of the CAP, with CAP23 first publishing carbon budgets and sectoral emission ceilings, and reaffirms Ireland's

climate ambition, with a focus on delivery, implementation and measurable outcomes, particularly ahead of the second carbon budget period (2026–2030). 2025 is the last year in the first 5-year carbon budget period. During the initial 5-year budget period the average annual reduction required was 4.8%, this increases to 8.3% in the second budget period (2026-2030).

CAP25 Budget

In relation to 15.1(a), in respect of the most approved Climate Action Plan (CAP25), the development is fully aligned with CAP25 and all relevant climate policies.

As set out in Section 8.4.1.3 (Potential Impact of the Proposed Development) of Chapter 8 (Climate), the GHG emissions from the Proposed Development as a total cannot be compared against one specific sector 2030 carbon budget. The emissions are broken down into different assessment categories and these must be compared separately to the relevant sectoral emissions budget.

The estimated total GHG emissions, when annualised over the 25-year proposed development lifespan, are equivalent to 0.0045% of Ireland’s total GHG emissions in 2024. The total annualised energy use emissions are 0.02% of the Electricity sector budget. Total annualised industry-related emissions are 0.006% of Ireland’s non-ETS 2030 emissions target and 0.0009% of the 2030 Industry budget. The estimated annualised GHG emissions associated with transport-related activities are 0.018% of the 2030 Transport budget, while annualised waste GHG emissions are 0.04% of the Waste budget. By comparing the results of the proposed development’s Greenhouse Gas Assessment to the sectoral emissions ceilings, as set out in Table 1, the minor contribution of GHG emissions from this proposed development to Ireland’s annual carbon budget is evident.

Target/Sectoral Budget (tCO ₂ e)		Annualised Development GHG Emissions (tCO ₂ e)		% of Relevant Target/Budget
Ireland's 2024 Total GHG Emissions (existing baseline)	57,640,000	Total GHG Emissions	2,362	0.0041%
2030 Sectoral Budget (Industry Sector)	4,000,000	Total Industry Emissions	253	0.0009%
Non ETS 2030 Target (42% of 2005 ETS Level)	27,722,000			0.006%
2030 Sectoral Budget (Transport Sector)	6,000,000	Total Transport Emissions	1,073	0.018%
2030 Sectoral Budget (Waste Sector)	1,000,000	Total Waste Emissions	365	0.04%
2030 Sectoral Budget (Electricity Sector)	3,000,000	Total Electricity Emissions	670	0.02%

Table 1 Estimate GHG Emissions Relative to Sectoral Budgets and GHG Baseline

CAP25 Procurement

CAP25 retains the high-impact sectors set out in CAP24 where the biggest savings can be achieved, while emphasising public sector leadership and green procurement. The Proposed Development is a Strategic Infrastructure Development aiming to enable future growth and development within Co. Carlow. Public sector leadership is strengthened through a new *Buying Greener: Green Public*

Procurement Strategy and Action Plan (2024–2027) (Government of Ireland, 2024a) the development of mandatory Climate Action Roadmaps, and enhanced emissions monitoring and reporting across government operations. The government has reinforced the public sector's responsibility to lead by example, particularly through climate-proofing operations and sustainable procurement initiatives.

As a public body, Uisce Éireann's *Supplier Sustainability Charter* sets out their commitment to "embedding sustainability across our supply chain by collaborating with our internal and external supply partners to deliver sustainable and innovative water service solutions". By aligning procurement practices with ISO 20400 (the International Standard for Sustainable Procurement) Uisce Éireann expect their suppliers to monitor and report the carbon impact of their businesses and set out carbon reduction actions across their entire life cycle. These sustainable procurement initiatives align Uisce Éireann with CAP25 targets.

CAP25 also reinforces targets first outlined in CAP24 to reduce the embodied carbon of construction materials, with a 10% reduction by 2025 and 30% reduction by 2030 for materials produced and used in Ireland. Cement and high embodied carbon construction materials can be reduced through product substitution, reduced clinker content in cement and uptake of low-carbon construction methods, including those outlined in the Construction Industry Federation 2021 report *Modern Methods of Construction* (Construction Industry Federation, 2021). Public bodies are now required under the Public Sector Mandate to use best practice project design to reduce embodied carbon; procure concretes with clinker replacements (lower carbon); and require that large construction projects produce a whole life cycle GHG emissions assessment. Further guidance on how the built environment can contribute to a circular, low-carbon economy is detailed in the recently published *A Roadmap for a Resource Efficient Circular Built Environment*. This supports the Circular Economy And Miscellaneous Provisions Act 2022 (No. 26 of 2022), which allows for waste material to be safely and sustainably re-used as secondary raw materials and is particularly important for the construction sector.

In the case of the proposed development, the results of the GHGA, carried out in Chapter 8 (Climate), showed the embodied carbon within the raw materials (life-cycle stages A1-A3) was the most significant contributor (50%) to total project GHG emissions (construction and operational phases). To reduce embodied carbon emissions associated with materials, Uisce Éireann propose to:

- Source materials locally to help reduce transport related GHG emissions and support local suppliers, further promoting economic sustainability; and
- Review material choices and quantities during detailed design, to identify and implement any lower embodied carbon options, where feasible.

These measures will contribute towards Uisce Éireann Sustainability Framework which sets out an ambition to reduce the carbon intensity of capital investment and assist in aligning the project to Ireland's CAP goal of Net Carbon Zero by 2050.

Based on the information provided in the application as a whole, the above information demonstrates that the relevant body can be satisfied that, by granting permission for the proposed development, it would, in so far as practicable, be in alignment with Section 15.1(a).

Section 15.1(b) The most recent approved national long-term climate action strategy

In relation to 15.1(b), the *Long-term Climate Action Strategy* was published in April 2023. The Strategy aligns with CAP25's 2030 target (51% reduction in GHG emissions by 2030 compared to 2018 levels) and 2050 target of climate neutrality, indicating ~33Mt CO₂e further abatement by 2050 versus 2030.

In relation to the Proposed Development, ~50% of total GHG emissions sit within the Industry Sector. *The Long-term Strategy on Greenhouse Gas Emissions Reductions* (Government of Ireland, 2024) notes the key reduction measures to achieve the set Industry Sector targets will likely come from electrification, zero-carbon heating and cement decarbonisation. The Long-term Strategy also aligns with the CAP25 goals of reducing embodied carbon in construction, driving material efficiency in construction to reduce embodied energy, reducing energy demand in industry and increasing the use of zero emissions gases (Government of Ireland, 2024).

Increasing the use of zero emissions gases

Uisce Éireann demonstrate the key measures set out above through a variety of projects and commitments. Uisce Éireann's Sustainability Strategy highlights their ambition to use energy efficiently, support renewable energy and continue their electrification rollout. Their Sustainability Strategy goes on to discuss their use of biogas across their portfolio, stating "*Biogas plays an essential role and is our principle on-site renewable energy source and a key contributor to achieving our renewable energy ambitions. Biogas is generated from our wastewater sludge anaerobic digestion plants and reduces our reliance on fossil fuels. In 2023, we produced circa 100MWh Biogas across 10 sites and for 2024, we anticipate a similar production level*". Wastewater sludge from the Proposed Development may contribute to Uisce Éireann's portfolio and aid in achieving the national target to increase the use of zero emissions gases.

In support of renewable energy, the roll out of solar photovoltaic installations is also ongoing across Uisce Éireann's sites, including 325,000kWh per year installation at the proposed development, which will reduce the demand on the electricity grid and avoid approximately 83 tCO_{2e} annually.

Material efficiency

The proposed development is in alignment with Section 15.1(b) and specifically driving material efficiency through Uisce Éireann's commitment to minimising waste of materials due to poor timing or over ordering on site. Further, in Uisce Éireann's Supplier Sustainability Charter they set out the requirement for Suppliers to "*measure and report how they are consuming materials and resources and promote the application of circular economy solutions to design out waste and maintain the value of products and materials for as long as possible. When products reach the end of life consider opportunities for recycling and resource recovery are maximised to again create further value*". These commitments support driving material efficiency and reducing embodied carbon in construction, which aligns with both CAP25 and *The Long-term Strategy on Greenhouse Gas Emissions Reductions* (Government of Ireland, 2024).

Based on the information provided in this note and in the application as a whole, the relevant statutory bodies 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).

Section 15.1(c) 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) (Government of Ireland, 2024c) 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 (Government of Ireland, 2024c) 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 (Government of Ireland, 2024) 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 Water Quality and Water Services Infrastructure Sectoral Adaptation Plan (Government of Ireland, 2025b) identified the key climate impacts for the energy sector as:

- Flooding / changes in precipitation / extreme events,
- Temperature rise and extreme heat,
- Coastal Flooding,
- Drought Conditions.

As outlined in Chapter 8 (Climate) of the EIAR, climate proofing of the project was undertaken using the approaches required by the NAF and the relevant sectoral adaptation plan, and outlined in the following guidance:

- Transport Infrastructure Ireland (TII) PE-ENV-01104: Climate Guidance for National Roads, Light Rail and Rural Cycleways (Offline & Greenways) – Overarching Technical Document (TII, 2022a);
- IEMA EIA Guide to Climate Change Resilience and Adaptation (IEMA, 2020).

Both documents outline a methodology for undertaking a risk assessment where there is a potentially impact on the project receptors due to climate change. The approach to the assessment is based on the following steps:

- Identify potential physical climate change hazards to a site/project.
- Assess the exposure of the site/project to such hazards and the vulnerability of receptors (project components/ assets).
- Complete a climate change vulnerability assessment to identify risks and potentially prioritising to identify the most severe
- Formulate mitigation actions to reduce the impact of the identified risks.

Section 8.2 of the EIAR Climate chapter outlines the methodology, GHG significance criteria and Vulnerability Matrix based on this approach.

Under Section 8.4.2 of Chapter 8 (Climate) "Climate Change Risk Assessment", it was noted that climate change has the potential to alter weather patterns and increase the frequency of rainfall in future years. As outlined in Section 8.4 'Potential Impacts of the Proposed Development' of Chapter 8 (Climate), changes in climate may lead to a variety of impacts including the following and addressed mitigation:

- Increased rainfall may increase the risk of flooding both fluvial and pluvial on site. A site specific flood risk assessment was carried out by IE consulting which determined that pluvial flooding was not a risk to site. The assessment found that the majority of the site lies within Flood Zone C, indicating a low risk of flooding. However, a small section (proposed outfall pipe and associated headwall) adjacent to the river falls within Flood Zone A and Flood Zone B, where fluvial flooding is possible. However, the potential flood risk to and from the proposed outfall pipe and headwall is considered to be low based on the results of hydraulic modelling. The development as proposed is not predicted to result in an adverse impact to the existing hydrological regime of the area or increase flood risk elsewhere and is therefore considered to be appropriate from a flood risk perspective.
- Increasing temperature and drought have a direct impact on the proposed development, impacting assimilative capacity. This risk has been assessed as part of the Water Chapter (Chapter 8 of the EIAR) which found adaptations to the Proposed Development in the future are possible, should emission limit values exceed set targets.

In relation to extreme wind, the appropriate wind loadings are in line with the requirements, and no additional construction of elevation is proposed.

In relation to extreme heat and drought, sustainable water practices are implemented across operation. Design materials will be selected to meet thermal loads however, extreme temperature impacts in the design are not projected for Ireland (+40°C).

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.

Thus, in line with the methodology outlined in Section 8.2 of Chapter 8 (Climate), the effects on the Proposed Development are considered direct, not significant, and negative in nature and not significant in terms of EIA.

Thus, the granting of permission for the Proposed Development will be consistent with the national and sectoral adaptation plans.

Based on the information provided in this report 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).

Section 15.1(d) the furtherance of the national climate objective

In relation to 15.1(d) the national climate objective, the CAP25 states:

"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 of net zero by 2050 and interim GHG reduction targets through its minimal contribution to sectoral budgets (see 15.1(a) for further detail) and its commitment to mitigation (see 15.1(b) for further detail).

Furthermore, the Proposed Development aligns with the national climate objective as Uisce Éireann is “mandated, through the National Climate Action Plan, to improve its energy efficiency by 50% by 2030 against a 2009 benchmark (adjusted for population served).” According to its Sustainability Strategy, “Each year we submit our energy consumption data to the Sustainable Energy Authority of Ireland (SEAI) who validate and publish our updated energy efficiency performance. In 2024, we have implemented additional measures as we remain committed to achieving the 2030 target.”

The mitigation measures set out by Uisce Éireann in relation to the Proposed Development, which are restated from Section 8.6 (Mitigation Measures) of Chapter 8 (Climate), include:

Construction Phase

During the construction phase the following best practice measures shall be implemented on site to prevent significant GHG emissions and reduce impacts on climate:

- Minimising waste of materials due to poor timing or over ordering on site will aid to minimise the embodied carbon footprint of the site. A construction waste management plan will be implemented to minimise construction waste sent to landfills. Recycling materials will be promoted to and reduce the environmental footprint of the site.
- Sourcing materials locally will be prioritised. This will help to reduce transport-related GHG emissions and helps support local suppliers, further promoting economic sustainability.
- Material choices and quantities will be reviewed during detailed design, to identify and implement any lower embodied carbon options, where feasible.
- These measures will contribute towards Uisce Éireann Sustainability Framework which sets out an ambition to reduce the carbon intensity of capital investment.

An OTMP (Outline Traffic Management Plan) and CTMP (Construction Traffic Management Plan) are in place for the construction phase of the Proposed Development. A summary of the CTMP mitigation measures such as information on delivery timing, construction route and car parking can be found in the Traffic assessment. In addition, the following actions can be taken to reduce impacts to climate:

- Prevention of on-site or delivery vehicles from leaving engines idling, even over short periods.
- Ensure all plant and machinery are well maintained and inspected regularly.

Operational Phase

The majority of the operational GHG emissions associated with the Proposed Development are from vehicle use to carry out routine maintenance, deliver chemicals and collect and deliver sludge to biogas facilities. GHG emissions from these visits could be reduced by using local businesses to carry out required works and ensuring visits are multi-functional where possible to negate the need for additional trips. Electricity consumption also contributes to operational emissions. The

installation of solar panels will reduce GHG emissions associated with electricity consumption from the national grid which is partially generated using fossil fuels. As the national grid decarbonises over time, GHG emissions associated with electricity consumption from the grid will decrease.

Uisce Éireann Sustainability Framework sets out additional measures to reduce impacts to climate including:

- 40% energy demand met from installed renewables and Power Purchase Agreements (PPAs) by 2035
- Half energy intensity by 2030
- Process emissions strategy: Monitoring of process emissions by 2027

Based on the information provided in this note and in the application as a whole, the relevant consenting body 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).

Section 15.1(e) 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 is committed to mitigating greenhouse gas emissions as set out in 15.1(d) above and in Section 1.6 of Chapter 8 (Climate).

In regard to *15.1(e) the objectives of adapting to the effects of climate change*, the Proposed Development is committed to resilience and mitigating the impact of climate change as set out in Section 8.4.1 & Section 8.6 of Chapter 8 (Climate). A brief description of climate adaptation measures is provided below.

During construction the Contractor will be required to mitigate against the effects of extreme wind/storms, temperature extremes through site risk assessments and method statements. A review of flood risk assessment for the site indicates it is within Flood Zone C and is designated as at a low risk of flooding. Design plans confirm future rainfall projections can be accommodated by existing stormwater networks. Drought and water scarcity for operation has been considered and steps considered for sustainable water management where possible.

Based on the information provided in this note and in the application as a whole, the relevant body 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).

Summary

In summary, the Proposed Development will operate within the confines of its Sustainability Strategy and its Supplier Sustainability Charter and will operate in a way that is consistent with its goals, including improving its energy efficiency by 50% by 2030 against a 2009 benchmark (adjusted for population served).

Both strategies are aligned with economy-wide GHG emission reductions that Ireland requires to move towards its own national periodic targets, 2030 to 2050 (and intermediate quantitative targets). The 2050 target as outlined under CAP25 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 proposed developments 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.

References

- Carlow County Council (2024) Carlow Local Authority Climate Action Plan 2024–2029
- Carlow County Council (2024) Supplier Sustainability Charter
- Construction Industry Federation (2021) Modern Methods of Construction
- Government of Ireland (2018) Climate Action Plan 2019
- Government of Ireland (2023a) Climate Action Plan (CAP) 2024
- Government of Ireland (2024a) Buying Greener: Green Public Procurement Strategy and Action Plan (2024–2027)
- Government of Ireland (2024b) Long-Term Strategy on Greenhouse Gas Emissions Reductions
- Government of Ireland (2024c) National Adaptation Framework (NAF)
- Government of Ireland (2025) Climate Action Plan (CAP) 2025
- Government of Ireland (2025b) Water Quality and Water Services Infrastructure Sectoral Adaptation Plan
- Government of Ireland (2021) Climate Action and Low Carbon Development (Amendment) Act 2021 (No. 32 of 2021)
- Transport Infrastructure Ireland (TII) (2022) PE-ENV-01104: Climate Guidance for National Roads, Light Rail, and Rural Cycleways (Offline & Greenways) - Overarching Technical Document