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DESIGNING AND DELIVERING
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APPENDIX 2

Need for the Proposed
Development and Planning
and Policy

Appendix 2.1 National Waste Management Plan: General Siting Criteria
Appendix 2.2 Development Management Standards for Carlow

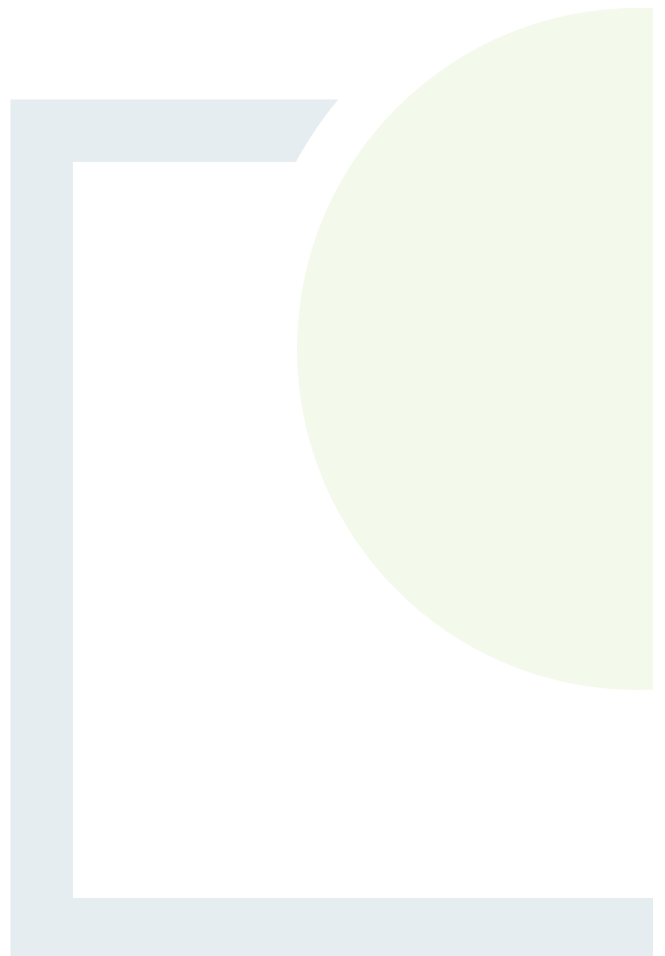


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APPENDIX 2.1

National Waste Management
Plan: General Siting Criteria



1.1 National Waste Management Plan: General Siting Criteria

Tables 1 to 4 presents the environmental, economic, planning and social criteria for siting a waste management facility as outlined in the National Waste Management Plan General Siting (Local Government Ireland, 2024) Appendix 9 of Volume IV.

Table 1-1: Environmental Considerations

No.	Environmental Considerations	Powerstown Bioenergy Compliant
1	Avoid, as far as possible, siting waste infrastructure or related infrastructure in areas protected for landscape and visual amenity, geological heritage and/or cultural heritage value . Where it is unavoidable, an impact assessment should be carried out by a suitably qualified practitioner and appropriate mitigation and/or alternatives must be provided.	✓
2	Avoid siting waste infrastructure or related infrastructure in proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, and Refuges for Fauna,	✓
3	To prevent the spread of Invasive Alien Species (IAS) , where waste material is transported from one location to another, an IAS survey of source and receptor sites will be conducted by a suitably qualified person. If IAS are found, preventative measures will be implemented to prevent the onward spread of the plant / animal material including: employment of good site hygiene practices for the movement of materials into, out of and around the site; ensuring that imported soil is free of seeds and rhizomes of key invasive plant species; adherence to any national codes of practice relating to prevention of the spread of IAS (including both Ireland and Northern Ireland Codes of Practice).	✓
4	In order to protect habitats which, by virtue of their linear and continuous structure (e.g. rivers and their banks) or their contribution as stepping stones (e.g. ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species, these features will be protected as far as possible from loss or disruption through good site layout and design.	✓
5	To protect river habitats and water quality, ensure that no development, including clearance and storage of materials, takes place within a minimum distance of 15 m measured from each bank of any river, stream or watercourse .	✓
6	Ensure that a Sustainable Drainage System (SuDS) is applied to any development and that site-specific solutions to surface water drainage systems are implemented.	✓
7	Ensure the relevant requirements of the Water Framework Directive and associated River Basin Management Plans are met.	✓
8	Avoid development of waste management infrastructure in flood risk areas . Reference should be made to the Planning System and Flood Risk Management for Planning Authorities (DECLG/OPW, 2009), National Flood Hazard Mapping (OPW), the relevant Flood Risk Management Plan (FRMP) and flood risk assessments for development plans.	✓
9	Ensure that riparian buffer zones (minimum of 15 m) are created between all watercourses and any development to mitigate against flood risk. The extent of these buffer zones shall be determined in consultation with a qualified ecologist and following a Flood Risk Assessment. Any hard landscaping proposals shall be located outside of these buffer zones.	✓

No.	Environmental Considerations	Powerstown Bioenergy Compliant
10	To protect river habitats and water quality (including physical habitat and hydrological processes/regimes), ensure that no development, including clearance and storage of materials, takes place within a minimum distance of 15 m measured from each bank of any river, stream or watercourse.	✓
11	Avoid geologically unsuitable areas including karst where practicable, and areas susceptible to subsidence or landslides. Due consideration should be given to the primary water source of the area and the degree of surface water/ groundwater interaction.	✓
12	If there is an airport within 13 km of the proposed waste facility, the airport shall be consulted at an early stage of planning.	N/A
13	Impact from a transport perspective will be assessed including road access, network, safety and traffic patterns to and from the proposed facility in accordance with road design guideline and/or relevant LA guideline in relation to roads.	✓
14	If there are existing, closed or inactive landfills which could be used for alternative waste activities as they are considered brownfield sites; also, suitably zoned, other brownfield sites could be used for waste activities. Sites that offer opportunities to integrate differing aspects of waste processing will be preferred choices. This will ensure maximum efficiency of waste processing subject to EIA and AA.	✓
15	In keeping with the EIA Directive the ' whole project ' is to be assessed. This applies to those developments which include for example haul roads or grid connections which are part of the overall project. This is to ensure the practice of project splitting is avoided.	✓
16	The cumulative effects of both existing and proposed waste facilities are to be assessed especially clusters of sub-threshold EIA development (where EIA is not required for individual projects).	✓
European Sites		
17	Avoid siting new waste infrastructure or related infrastructure in European Sites , including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).	✓
18	Avoid siting new waste infrastructure or related infrastructure in Annex I Habitats occurring outside European designated sites.	✓
19	With a view to improving the ecological coherence of the Natura 2000 Network, the public authority will seek to avoid damage to features of the landscape which, by virtue of their linear and continuous structure (e.g. rivers and their banks) or their function as a stepping stone e.g. small ponds or small woods, are essential for the migration, dispersal or genetic exchange of wild species.	✓
20	Undertake Appropriate Assessment (AA) Screening for all waste-related activities requiring development consent , e.g. new infrastructure, expansions and upgrades of existing infrastructure and activities, waste authorisation applications or reviews (e.g. CoR, WFP, and Waste Licences). The consenting authorities, i.e. the local planning authorities, An Bord Pleanála and EPA are the bodies responsible for determining whether a development can be screened in or out.	✓

No.	Environmental Considerations	Powerstown Bioenergy Compliant
21	Where a significant effect on a European Site, either alone or in combination with other plans or projects, is identified, or where there is uncertainty with regard to effects, the competent authority will seek a Natura Impact Statement (NIS) to inform an AA. In so doing, the implications for any European Site in light of the site's Conservation Objectives shall be considered.	✓
22	For upgrades, expansion, enlargements and reviews related to existing waste activities and infrastructure , the competent authority will seek an evidence base to show that the existing operations are not negatively impacting on a European Site, alone or in combination with other plans and projects, with particular focus on avoiding the deterioration of natural habitats and the habitats of species as well as the disturbance of species for which the area has been designated.	✓

Table 1-2: Economic Considerations

No.	Economic Considerations	BG001 Compliant
23	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 with other infrastructure, such as energy, industrial, water and wastewater plants, which can be mutually beneficial in terms of energy and raw material supply and from environmental technology clusters.	N/A
24	Access to services including transport network, energy, water, and wastewater are essential in varying importance.	✓
25	Room for future expansion of the proposed facility .	N/A
26	Adequate, acceptable, vehicle parking and turning arrangements are required, for all vehicles involved in the proposed activity.	✓
27	Proximity to waste producers and product markets are important criteria for waste facilities to minimise transportation costs. The economic and environmental sustainability of transporting waste should be considered when siting sites with a view to minimising travel distances for wastes.	✓

Table 1-3: Planning Considerations

No.	Planning Considerations	BG001 Compliant
28	Waste management facilities should be located within suitably zoned lands , as identified in County and City Development Plans and Local Area Plans. This will ensure land use compatibility. In the absence of zoning, facilities should be subject to the good neighbour principle in which a person should take reasonable care to avoid acts or omissions that could be foreseen as likely to impact their neighbour. Formal pre-consultation with the local authority and An Bord Pleanála is recommended and is required for SID applications;	✓

No.	Planning Considerations	BG001 Compliant
29	Brownfield sites , which are suitably zoned, may be suitable for waste activities. For example, closed landfills are sites that may fit these criteria and may have been identified as potential locations in previous waste plans.	✓
30	The geographic distribution of other similar authorised facilities (whether constructed or not). Regional spatial imbalances should be avoided where possible to ensure the population at large is adequately serviced by relevant facility types. Equally important is the requirement to consider local facility clustering ⁴ , where complementary activities are co-located in a designated area.	✓
31	There are a number of key principles on which current legislation is based. These are relevant to planning considerations for waste facilities. Included is the proximity principle, the precautionary principle, self-sufficiency and the polluter pays principle.	✓
32	Stated objectives of the National Waste Management Plan .	✓
33	The development of waste infrastructure should be cognisant of present and future population density so that proposed waste facilities will be optimally located.	✓
34	Proximity to consumers and industry: The potential for resource synergies between waste facilities (particularly those producing energy) and urban areas, institutional buildings, sports facilities and industries should be examined. The exchange of heat, water and other resources can provide viability to facilities. Planning designations such as eco-parks or carbon neutral zoning may specifically encourage colocation and sharing of resources.	✓
35	The requirement for national, regional or local self-sufficiency, as appropriate.	✓
36	Adjacent existing and zoned land uses. These lands should be investigated to identify sensitive areas and other protected activities, likely to be adversely impacted by the facility operations. To protect sensitive areas from any impacts resulting from routine and non-routine operating conditions, such as offensive odours, noise, litter and dust, an adequate setback distance should be maintained between the principal processing area of the waste facility and incompatible land uses. A buffer zone is not an alternative to the siting criteria but provides for contingencies that may arise with typical management practices. Where this buffer zone is not available, the performance of management practices needs to be significantly increased to provide the same level of protection. However, it is unlikely that the facility can be managed with minimal adverse impacts if the setback distances are inadequate.	✓
37	Consideration should be given to anticipated community and commercial development near the proposed facility .	✓
38	Impact from a transport perspective to be assessed including road access, network, safety and traffic patterns to and from the proposed facility in accordance with road design guidance and/or relevant local authority guidance or other documents that have relevance in relation to transport and road network. Relevant documents may include Regional Spatial and Economic Strategies, County Development Plans, Strategic Development Zone Planning Schemes and Local Area Plans.	✓

Table 1-4: Social, Community and Other Relevant Policy Considerations

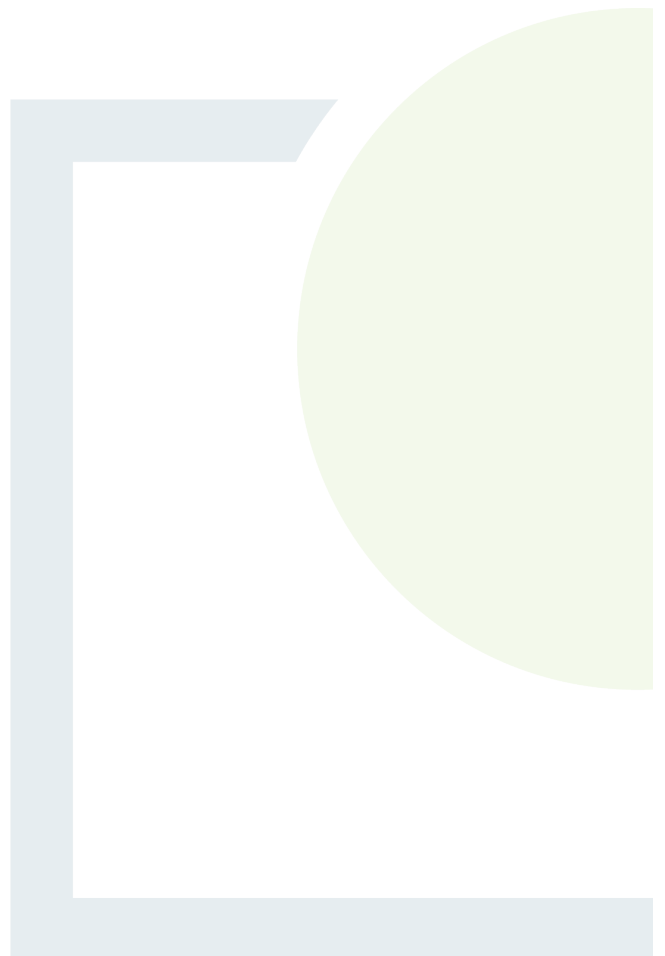
No.	Social Community and Other Relevant Policy Considerations	BG001 Compliant
39	Environmental social equity should be given due consideration including the cumulative impact of siting existing and proposed waste infrastructure.	✓
40	Developers are advised to use a combination of methods of public consultation to inform and collect public opinion.	✓
41	Traffic compatibility with the existing neighbours and community.	✓
42	Impact on historic or cultural features.	✓
43	Impact on neighbourhood character.	✓
44	Impact on air quality and human health.	✓



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APPENDIX 2.2

Development Management
Standards for Carlow



1.2 Development Management Standards

Chapter 16 of Carlow County Development Plan (Carlow County Council, 2022) sets out the development standards and criteria that are applied as relevant to the assessment of planning applications.

The aim of the development standards is to achieve high standards in design and to build sustainable healthy communities.

Table 2-1 is a list of relevant standards which have been complied with as part of the design and assessment of the proposed development.

Table 2-5: Development Management Standard Checklist for Proposed Development

Standard Area	Key Requirements / Criteria	Proposed Development Compliance	Section
Pre-Planning Consultations	Encouraged under Section 247; meetings by appointment; no statutory fee (subject to change).	Yes	Chapter 5 EIAR
Appropriate Assessment (AA)	Required where significant effects on European sites may occur; Natura Impact Statement required if screening indicates need.	Yes	NIS
Environmental Impact Assessment (EIA)	Required for Annex I & II projects; EIAR must be prepared; thresholds per Planning & Development Regulations.	Yes	EIAR
Strategic Environmental Assessment (SEA)	Lower-tier assessments must consider sensitivities: SACs, SPAs, NHAs, monuments, protected structures, landscapes.	Not Applicable	
Ecological Impact Assessment (EcIA)	May be required for developments affecting flora, fauna, habitats; follow CIEEM 2019 guidance.	Yes	Chapter 11 EIAR
Flood Risk Assessment (FRA)	Required where flood risk exists; must follow Planning System & Flood Risk Management Guidelines.	Yes	Chapter 13 EIAR
Universal Access & Design	Inclusive design required; follow best practice standards (Section 8.8.4).	Yes	Volume 3 EIAR
Sustainable Design	Early integration of energy efficiency, climate adaptation, green infrastructure, orientation, materials.	Yes	Chapter 9 EIAR
Soft Landscaping	Detailed plan required; native species preferred; failed planting must be replaced; bond may be required.	Yes	Chapter 11 and 16 EIAR

Standard Area	Key Requirements / Criteria	Proposed Development Compliance	Section
Hard Landscaping	Durable, high-quality materials; SUDS required; assessed per Urban Design Manual (2009).	Yes	Chapter 13 EIAR and Volume 3 EIAR
Site Coverage	Residential: max 50%; Industrial: 75%; Employment: 60%; Retail/Commercial: 66%; Town Centre: 80%.	Yes	Site coverage is 50% of the proposed development area
Plot Ratio	Town Centre/Brownfield: 1.0–2.0; Inner Suburban: 0.5–1.0; Outer Suburban: 0.35–0.5.	Yes	Plot ratio is 0.9 for buildings:site.
Building Height	Increased height considered in central areas with high-quality design and minimal heritage impact.	Yes	Chapter 16 EIAR
Sustainable Transport & Travel	Traffic and Transport Assessment	Yes	Chapter 6 EIAR
	Car Parking for Industry 1 per 60 m ² of GFA	Parking provision for the development has been designed in accordance with the operational requirements of the site. As the majority of the development comprises infrastructure areas which will not be routinely accessed by personnel, parking demand has been calculated based on the anticipated number of staff on site, rather than applying a standard provision rate of 1 space per 60 m². The proposed car park provides accommodation for approximately 48 vehicles. Of the total number of spaces, 25% are allocated as EV charging spaces, with the infrastructure designed to allow expansion to 100% EV charging provision in future years if required. In addition, a dedicated parking bay has been allocated for bicycle parking, which accommodates ca. 8-12 bikes. As with the car parking provision the bike parking demand has been calculated based on the anticipated number of staff, rather than the provision rate of 1 bicycle space per 500 m².	

Standard Area	Key Requirements / Criteria	Proposed Development Compliance	Section
		Accessible parking facilities for mobility impaired users are also provided, with a total of 2 no. accessible parking spaces provided.	
	Bicycle Spaces 1 per 500 m ²		
	Disabled parking spaces required per Building Regulations Part M.	Yes	Volume 3 EIAR
	Bicycle parking required for all new residential, commercial, educational, and employment developments; must be secure, covered, and accessible.	Yes	Volume 3 EIAR
	Loading bays required for retail, commercial, and industrial uses; must not obstruct pedestrian or cycle routes.	Not Applicable	
	EV charging infrastructure required in accordance with national regulations (generally 10% active, 100% passive provision for multi-unit developments).	Yes	Volume 3 EIAR
Infrastructure and Environmental Management	SUDS required for all new developments (swales, permeable paving, rain gardens, attenuation).	Yes	Chapter 3 and 13 EIAR and Volume 3 EIAR
	Surface water must be managed on-site; no direct discharge to sewers.	Yes	
	Waste management plans required for construction and operational phases.	Yes	
	Soil Protection	Yes	Chapter 12 EIAR
	Waste Recovery	Yes	EIAR
	Major Accidents Directive/Seveso Sites	Yes	Land Use Assessment
	Noise, air quality, and light pollution must be mitigated; compliance with EPA standards required.	Yes	Chapters 10, 8 and 11 EIAR
	Utility services (ESB, telecoms) must be underground where possible.	Yes	
Climate Action & Energy	Development must align with the Climate Action Plan, National Energy Efficiency Action Plan, and Nearly Zero Energy Building (NZEB) standards.	Yes	Chapter 2

Standard Area	Key Requirements / Criteria	Proposed Development Compliance	Section
	Proposals must demonstrate reduced carbon emissions through building design, materials, and energy systems.	Yes	Chapter 9 EIAR
	Renewable energy integration encouraged: solar PV, heat pumps, district heating, geothermal.	Yes	Chapter 3 and Chapter 9 EIAR
	Large developments must include Energy Statements showing predicted performance.	Not Applicable	
	Green infrastructure (trees, planting, SUDS) required to support climate adaptation.	Yes	Chapter 13 EIAR
	Flood resilience measures required in line with Section 16.2.5.	Yes	Chapter 13 EIAR
Industrial, Enterprise & Employment Development	Site layout must provide safe access, internal circulation, and segregation of HGVs, cars, and pedestrians.	Yes	Volume 3 EIAR
	Adequate service yards, loading areas, and turning space required for HGVs.	Yes	Volume 3 EIAR
	Landscaping and boundary treatment required to screen industrial uses from sensitive receptors.	Yes	Chapter 16 EIAR
	Building design must be high-quality, with durable materials and appropriate colour palettes; large blank façades discouraged.	Yes	Chapter 16 EIAR
	Noise, dust, odour, and lighting impacts must be mitigated; compliance with EPA and environmental standards required.	Yes	EIAR Chapters 7, 8, 10, 11
	SUDS required for all industrial sites; pollution control measures mandatory for areas handling chemicals or fuels.	Yes	Chapter 13
Natural Heritage	Development must protect SACs, SPAs, NHAs, pNHAs, and ecological corridors.	Yes	NIS
	Ecological Impact Assessment (EcIA) required where habitats or species may be affected.	Yes	Chapter 11 EIAR

Standard Area	Key Requirements / Criteria	Proposed Development Compliance	Section
	No net loss of biodiversity; mitigation and compensation measures required where impacts occur.	Yes (no watercourses on site)	Chapter 11 EIAR
	Hedgerows, mature trees, and watercourses must be retained and buffered.	Yes	Chapter 3, 11 and 16 EIAR
	Lighting design must avoid impacts on bats and nocturnal species.	Yes	Chapter 11 EIAR
	Invasive species management plans required where relevant.	Yes	Appendix 3.1 Volume 4 EIAR
	Archaeology Impact Assessment	Yes	Chapter 15 EIAR
Rural Development	Rural enterprise supported where scale and traffic are appropriate to rural character	Yes	Chapter 16 EIAR
	That buildings are sited appropriately in order to minimise obtrusion on the landscape. The Council will generally seek to cluster agricultural buildings and structures together to assimilate effectively into the landscape and will encourage the reuse of any redundant farm buildings where viable.	Yes	
	Use of dark coloured cladding (dark browns, greys, greens and reds)	Yes	

1.3 Bibliography

Carlow County Council. 2022. *Carlow County Development Plan 2022-2028* . 2022.

Local Government Ireland. 2024. National Waste Management Plan General Siting. 2024.

