An Bord Pleanála

Inspector's Addendum Report

ABP-311149-21

Development	Biomass processing and storage area. Construction of: Gasification and Methanation Plant for production of biofuels, a Gasification and Combined Heat Power Plant for production of electricity and heating, Battery Storage Facility(20MW), Thermal Energy recover and storage facility for district heating distribution, new 38kV substation. Creation of new access road off L-3169-0 and ancillary development, parking, landscaping and drainage. The application is accompanied by an NIS.
Location	Stonehall, Newmarket on Fergus, Co. Clare.
Planning Authority	Clare County Council
PA Reg. Ref.	20705
Applicant(s)	Carbon Sole Group Ltd.
Type of Application	Planning Permission
PA Decision	Grant with Conditions
Type of Appeal	Third Party vs Grant
Appellant(s)	Eoin & Helen McInerney and 2) Clean Air Shannon
Observer(s)	Biofuelwatch - Almuth Ernsting
Inspector	Suzanne Kehely

1.0 Introduction

1.1. This report is an addendum report to the Inspector's report (dated 2nd December 2022) in respect of the construction of an energy facility.

1.2. Following a meeting of the Board held on 2nd August 2023, the Board decided to defer consideration of the case pending response to a notice to the planning authority issued under Section 132 of the Planning and Development Act 2000, (as amended) seeking particular information and also pending consideration of the comments by the Inspectorate Ecologist. The notice issued relates to the status of the Shannon Town and environs Local Area Plan 2012-2018 as amended in the context of the current county development, having regard to a decision by elected members in June 2017 to defer the making of new LAP to a date no later than September 2022, while also noting the commencement of public consultation on the Shannon Town Environs LAP 2024-2030:

1.3. This report considers the response by the planning authority in addition to the context of the new County Development Plan (CDP) so as to provide an up-to-date assessment by reference to current development plan policy. As a point of clarification, since the completion of the report of 2nd December 2022, the planning authority has since adopted a new Clare County Development Plan 2023-2029 in April 2023 which also includes a revised Renewable Energy Strategy. This report also has regard to the updates in relevant national policy and guidance and the wider European regulatory framework.

2.0 Response by Planning Authority

2.1. In its letter of 10th August, Clare County Council states that it considers that the Shannon Town and Environs Local area Plan is currently in effect. It states that:

> 'The standing of the Shannon Town and Environs Local Area Plan 2012-2018 (as amended) within the new Clare County Development Plan 2023-2029 is in accordance with section 1.3 of the Clare County Development Plan 2023-2029. The Clare CDP 2023-2029 is the primary policy document for planning policy throughout the functional area of Clare County Council. The plan also contains settlement plans for all the towns and villages in the county, with the exception of Shannon Town. The Metropolitan Town of Shannon has its own dedicated Local

Area Plan, Shannon Town and Environs Local Area Plan 2012-2018 (as amended), which contains the zoning map for the town. A new Shannon Town and Environs Local Area Plan will be prepared for Shannon Town and Environs during the life of the plan.'

2.2. The Board is advised to note that the CDP 2023-2029 includes Volume 3(b) 'Shannon Municipal District Area Settlements (including Shannon Metropolitan Area Settlements)'. Within this volume there is a settlement statement for Shannon Town . The statement includes the vision of the town, the strategic goals (13 no.) for the town and a section on Employment, Economy and Enterprise. The Board is requested to consider this.

3.0 First Party Response

3.1. The applicant submitted responses on 22nd, 23rd and 24th August. Material considered by the Board to constitute an unsolicited elaboration on previous submissions was returned to the applicant in accordance with section 129(4) of the Planning and Development Act 2000 as amended.

3.2. The following points are made in respect of development plan status:

- The Shannon Town and Environs LAP 2012-2018 is the extant plan and a new LAP will be made in 2024.
- The new LAP is required to be consistent with core strategy of the CDP which refers (in section 1.3) to the dedicated LAP – Shannon Town and Environs LAP 2012-2018.
- The LAP is noted to maintain a consistent approach to the current CDP.
- It is emphasised that the LAP 'Enterprise' zoning objective provides for a mix of uses including Bioenergy, CHP District Heating and Biofuels. Paragraph 8.2.2 of the LAP sets out specific detail relating to the development site (E3 Stonehall – Enterprise site)
- It is anticipated that the zoning of the land will remain the same in the emergent LAP anticipated to be in force in 2024.
- The applicant concurs with the letter of 10th for Clare County Council.
- It is concluded that the Council response combined with the applicant's comments above regarding site zoning for future bioenergy development, are aligned with

the future green energy security and decarbonisation directive and policy instruments in place as sated in the application documentation. The development is therefore fully in accordance with the zoning in the LAP 2012-2018.

3.3. It is respectfully requested that the Board uphold the Council's decision to grant permission.

4.0 Further Responses

None.

5.0 Policy Context

5.1. Clare County Development Plan

5.1.1. The Clare County Development Plan 2023-2029 was adopted on 9th March 2023 and came into effect on 20th April 2023. However, pending amendments further to the Ministerial Direction in respect of the Clare County Development Plan, an interim Clare County Development Plan 2023-2029 was adopted. The ministerial direction as finalised on 3rd August 2023 relates to zonings not directly relevant to the subject site.

5.1.2. In Vol. 1 the Shannon estuary is generally referred to as having potential for renewable energy among a range of indigenous growth sectors in this region. Shannon is stated to being ideally placed as a centre for low carbon commerce (page 11)to be explored more in the LAP. It is stated that :

> 'The Shannon Free Zone and adjacent industrial parks, together with Shannon International Airport, provide an agglomeration of companies and business interests that could avail of a future energy network that can provide them with sustainable low carbon energy security.'

5.1.3. The other policies and objectives in the current CDP relevant to the subject development relate to climate action, rural enterprise and economic development and infrastructure as contained in Volume 1 – Written Statement. The policy and objectives for renewable energy as a resource are specifically set out in the Renewable Energy Strategy in Volume 5.

5.1.4. **Climate Action**: Chapter 2 sets out approach to transition to a low carbon economy and society. (section 2.9.1) and table 2.1 lists all climate action objectives in the written statement. CDP objective 2.14 supports development of enterprises that create and employ green technologies. CDP objective 2.17 supports district heating and use of bioenergy as a renewal energy resource. The provision for district heating and waste energy recovery is included in Development Management Standards under the heading 'Distributed Heating'. (A1.2.4)**.** The CDP has notably had regard to:

- The Climate Action and Low Carbon Development (Amendment Act) 2021 which requires a national transition to a climate resilient, bio-diversity rich , environmentally- sustainable and net zero emission country by 2050.
- The Climate Action Plan 2023 and notes support for at least 500MW of local community-based renewable energy projects and increased levels of micro-generation and small-scale generation.

5.1.5. **Economic Development and Enterprise/Rural Development and Natural Resources**: Section 6.18 identifies potential for renewable energy production and CDP objective 6.17 supports this sector whereas CDP objective 8.11 supports the sector as aprt of supporting rural enterprises in the countryside. CDP objective 8.12 supports the National Renewable Energy Action Plan and implementation of the Clare Wind Energy Strategy and the Clare Renewable Energy Strategy as part of this support in rural areas.

5.1.6. **Physical Infrastructure Environment and Energy**: Chapter 11 specifically refers to bioenergy as part of a renewable energy strategy. Section 11.8.5 refers to a community gain aspect and the need to facilitate community participation. CDP 11.47 set strategic environmental criteria for energy projects in Volume 5.

5.1.7. **Clare Renewable Strategy 2023-2029** sets out a strategy based on mapped energy resources and demand areas. It supports bio-energy (objective RES8.2) and identifies the Shannon Estuary as having a Biomass resource. Section 8.4.4 refers to district heating and suitability of the Shannon area and takes account of the subject site as identified in the Shannon town and Environs LAP 2012-2018 as amended.

5.2. Shannon Town

5.2.1. **Volume 3 (b)** includes a written statement and maps for the **municipal district of Shannon** which includes parts of both county Clare and county Limerick municipal districts. It specifically excludes Shannon Town which is stated as being covered by its own LAP. This volume also refers back to the context of volume 1 in terms of Core Strategy/ Settlement Hierarchy in Chapter 3 and Economic Development and Enterprise in chapter 6 (to which the planning authority also refers in its response to the Board).

5.2.2. **Shannon Town and Environs Local Area Plan 2012-2018**: This Local Area Plan is currently in operation as provided for in the current CDP. Accordingly the provisions as set out in my report of 2nd December 2022 still stand.

5.3. National Policy

Climate Action Plan 2023

5.3.1. This was launched on 21st December 2022. A supplementary Annex of Actions was published on 7th March 2023.

5.3.2. This is the 2nd review since its inception in 2019 and it is a more detailed document than CAP 22 . It sets out more details on implementation through a governance structure and use of a carbon budget programme and sectoral emission targets. These are incorporated into each sector-based chapter. There is a notable emphasis on afforestation and its role in carbon sink enhancement. There is also recognition of a cross sectoral approach. The Action Plan identifies that 'Bioeconomy processes often require actors working across sectors to: unlock the full potential and cascading use of biomass; develop new types of bioeconomy business models; and produce higher-value biobased products in alignment with addressing the climate and biodiversity challenges, and renewable energy opportunities. For Ireland's vision to be accomplished, it is essential that we have a coherent, horizontal, joined-up approach to policymaking across sectors. A Bioeconomy Action Plan is currently under development and will be published in the coming months, representing a key step in achieving the vision outlined in the National Policy Statement on the Bioeconomy. '[Not yet published at time of addendum preparation]

5.3.3. Of relevance, CAP 23 includes measures to expanding the indigenous biomethane sector and deliver a National Biomethane Strategy. (not available at time of preparing this review). The Climate Action Plan contains targets for biomethane, including production of 1 terawatt hour (TWh) of biomethane and 20 anaerobic

digestion (AD) plants by 2025 – increasing to 5.7 TWh of biomethane and 200 AD plants by 2030. The CAP also establishes a biomethane working group that aims to develop a national biomethane strategy and introduce a Renewable Heat Obligation Scheme by 2024 to incentivise the production of indigenously produced biomethane

Shift in Forestry Strategy.

5.3.4. The aims across the EU through Land Use, Land Use Change & Forestry (LULUCF) is to create a net sink for emissions however in Ireland it is identified as a source of emissions – Ref CAP23, table 17.3 LULUCF Sector GHG Emissions International Comparisons 2020 and Table 17.4 LULUCF Categories and Emissions 2021)) . In CAP it is stated that the understanding of the sector has fundamentally changed since the publication of CAP21. 'Our understanding of the GHG emissions associated with the LULUCF sector has fundamentally changed since the publication of Climate Action Plan 2021 and the Environmental Protection Agency's (EPA) National Inventory Report (NIR) 2021. This is primarily due to the revision of the emission factor for forestry on peaty or organic soils. We now know that the emissions from planting trees on this type of soil are far higher than previously envisaged.' A sectoral emission ceiling is yet to be agreed. Among the actions for the forestry and agricultural land use sector in 2023, include developing, assessing and adopting a Forestry Programme 2023-27 and Coillte's Strategic Vision, launching the Common Agricultural Policy Strategic Plan, and continuing Bord na Móna programmes aimed at peatland restoration.

5.3.5. The Forestry Programme 2023-2027 (22nd August 2023) will commence on completion of SEA/AA- Afforestation Programme.

5.3.6. Since the EU Biodiversity strategy for 2030 (May 2020) there are two EU guidelines on forestry published in March 2023

- Guidelines on Biodiversity – Friendly Afforestation, Reforestation and Tree Planting
- Guidelines for Defining, Mapping, Monitoring and Strictly Protecting EU Primary and Old-Growth Forests.

Long-Term Strategy on Greenhouse Gas Emissions Reductions (April 2023)

5.3.7. This follows the UN synthesis report March 2023 by the Intergovernmental Panel on Climate Change (IPCC). Section 1, Security of Supply, notes that in the transition to a climate neutral future, the pathway to decarbonisation must be underpinned by affordability and security in how we access and use energy. Having a reliable source of energy is vital for consumers. An Energy Security Package is in preparation with recommendations for strengthening Ireland's energy security with a view to adoption in Q2 2023. A number of security of supply gaps both in the short- and the medium-term have been identified. In the short term, we need to address capacity shortfalls in the electricity system and ensure adequate conventional generation is in place to support the elevated levels of renewable electricity being generated.

5.3.8. In respect of the role of electricity as a Pathway to Climate Neutrality, it is noted that Ireland will continue its efforts to decarbonise the electricity sector. This is stated in section 7 to be done by 'taking advantage of its significant renewable energy resources in a way that is competitive, cost-effective and ensures the security of electricity supply. As Ireland decarbonises demand for electricity will increase and total demand for natural gas will decrease. Deployment of renewable electricity presents challenges, as production is variable, and electricity is not easily stored as energy. Therefore, Ireland will focus on actions set out in the Climate Action Plan to increase the flexibility of the electricity system. As set out in CAP 23, a long-term electricity system development strategy to achieve our 2050 objective may include the following:

- A policy to require future dispatchable generation to be zero carbon gas ready;
- The continued delivery of variable renewable electricity generation.
- The continued delivery of demand flexibility, to incentivise demand when low carbon variable renewable electricity is available.
- Further policies to incentivise the construction of short and long duration storage to provide for smoothing of electricity supply and demand between times of high variable renewable production and low variable renewable production.'

S.28 Guideline to Planning authorities regarding implementing the Renewable Energy

5.3.9. These changed just prior to the adoption of the development plan. For example the document, 'Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change (2017) is referred to in the Development Plan however

these guidelines were revoked as of 16th December 2022 as they are superseded by more up to date strategies and action plans through the Climate Action and Low Carbon Development (Amendment) Act 2021 and the National Development Plan-2030 which reflect the target increase in the share of electricity generated from renewable energy. This is reflected in the Section 28 Guidelines, Development Plans Guidelines for Planning Authorities, issued in July 2022, which provide updated planning policies and objectives with regard to climate action, renewable energy and development plans. For example, Chapter 8 and Section 8.1.6 of the Development Plans Guidelines emphasise the role of Local Authority Renewable Energy Strategies to inform development plans. The direction is also in the context of the global geo-political pressures on local energy supply as reflected in the National Energy Security Framework , April 2022, while according with sustainable principles of development.

5.4. EU Directives and Policy

5.4.1. Following from the European Green Deal(2020) and Europe's commitment to delivering-net-zero GHG emission in response to climate change, a key regulatory measure is the recast Renewable Energy Directive (in force since 2018 and legally binding since 2021) . This is further underlined by the REPowerEU Plan in response to the global energy market disruptions. This policy and legal framework have informed the CAP23. The most recent key version is RED III which builds on REDII.

5.4.2. **The EU rules on sustainable biomass** recognise that for biomass to be effective at reducing greenhouse gas emissions, it must be produced in a sustainable way - from the growing of feedstock to final energy conversion. Each step along the way can pose different sustainability challenges that need to be managed and a raft of regulatory measures address this.

5.4.3. **The RED II (2021)** implicitly recognises that biomass use is not sustainable by default, and that additional criteria are indispensable to mitigate the risk of unsustainable use of biomass in the EU. The recast Renewable Energy Directive 2018/2001 previously had extended sustainability criteria to cover large scale biomass for heat and power in addition to biofuels. It includes criteria regarding agriculture waste and residue requiring soil protection ad also avoiding unsustainable sourcing and harvesting for forests. Of relevance, the RED II already:

- lays down rules on financial support to enhance the use of renewable energy, such as bioenergy;
- drives biomass use for energy with sustainability criteria to mitigate the risks of unsustainable biomass use;
- includes caps on the use of stem wood above a certain size for energy purposes, applying existing agricultural biomass no-go areas for forest biomass;
- introduces caps on high indirect land use change-risk biofuels;
- sets out biodiversity risks.

5.4.4. **The <u>provisional agreement reached</u> in May 2023 to revise the Renewable Energy Directive** and to up the target of renewable energy to 42.5% (up from 40% in RED II "(2021) promotes a gradual shift away from conventional biofuels to advanced biofuels (mainly produced from non-recyclable waste and residues) and other alternative renewable fuels (e-fuels). The EU's Biodiversity Strategy for 2030 considers that this approach should continue for all forms of bioenergy, and the use of whole trees and food and feed crops for energy production – whether produced in the EU or imported – should be minimised.

5.4.5. The recast of the Renewable Energy Directive includes a further targeted strengthening of the biomass sustainability criteria and will take up recommendations of the report "The use of woody biomass for energy production in the EU", by the Commission's Joint Research Centre.

5.4.6. **New Renewables Energy Directive** adopted on 9th **October 2023** amends Directive (EU) 2018/2001, regulation (EU) 2018/1999 and Directive 98/70/EC and repeals Directive (EU) 2015/652 to raise share of renewable energy in the EU's overall consumption to 42.5% by 2030 with 2.5% top up with each member state contributing to this target. It strengthens the sustainability criteria for use of biomass for energy in order to reduce risk of unsustainable bioenergy production. Permit procedures are to be fastracked as they are presumed to be of over-riding public interest limiting grounds to legal objections to new installation. This amends the current RED in force since Dec 2018 and legally binding since June 2021 which set a 32% share of renewable energy target for 2030 of the total EU energy consumption.

5.4.7. The sustainability criteria in the RED directives are complementary to the safeguards set out by EU climate and environmental legislation, in particular by the Regulation on Land Use, Land Use Change and Forestry 2018/841 (LULUCF). The regulation makes sure that all sectors contribute to the EU's 2030 emission reduction target, including the land use sector.

5.4.8. In tandem with the RED there is also the new, recast **Energy Efficiency Directive (EU) 2023/1791**. This champions the "energy efficiency first" principle and paves way for an array of measures designed to expedite the advancement of energy efficiency – a key one being setting an EU legally binding target to reduce the EU's final energy consumption by 11.7% by 2030. Measures include building renovation, energy audits, and promoting local heating and cooling plans and progressively increasing the efficient energy consumption in heat or cold supply, also in district heating. The proposed rules introduce an obligation on EU countries to design their national support schemes in accordance with the biomass cascading principle whereby woody biomass is used according to its highest economic and environmental added value. Implementing methodology is constantly evolving. For example one such measure is the Commission Delegated Regulation (EU) 2023/1640 (5 June 2023) on the methodology to determine the share of biofuel and biogas for transport, produced from biomass being processed with fossil fuels in a common process.

5.4.9. **Implementing Act on guidance for EU countries:** As of October 2023 the Commission is finalising an Implementing Act providing uniform conditions for implementation of the revised directive's sustainability criteria for forest biomass resulting in strengthened sustainability criteria for biofuels, bioliquids and biomass fuels.

5.4.10. **European Union (Renewable Energy) Regulations 2022**. There are two sets of regulations which came into operation in Ireland in July 2022 for the purpose of implementing parts of the Renewable Energy Directive. There were not specifically cited in my report of December 2022. SI 350/2022 Regulations relate to the detailed management of supported energy schemes from renewable sources subject to a range of criteria. They set out definitions on related terminology including feedstuff/ sources and fuel type outputs and set out methodologies for measuring compliance with sustainability criteria. Sustainability Enerагy Authority Ireland is delegated to establish procedures for compliance with sustainability and greenhouse gas

emissions savings criteria. This body is also nominated body to verify fulfilment of sustainability criteria. Article 23(1) provides for ministerial appointment of SEAI as the single contact point for permit application and granting for renewable energy applications. It is not a consent authority

5.4.11. Further detail on related EU Directives and policy are contained in Appendix 2(a) and (b).

6.0 Assessment

6.1. General

This addendum report is consequent on clarification by the planning authority on the status of the Shannon Local Area Plan 2012-2018, (hereinafter referred to as the Shannon LAP) which I have addressed below. Since the preparation and assessment of my previous report a new development plan has been adopted in April 2023 and there have also been some changes in policies pertinent to the nature of the proposal. This is in addition to the continuously evolving regulatory framework emanating from European Directives and consequent binding commitments to address climate change at a European level. I have considered this context to provide the Board with more up to date criteria to inform its decision.

6.2. Development Plan – Shannon Town and District

6.2.1. I have reviewed the current policy provisions and objectives of the current Clare County Development Plan 2023-2029 insofar as they are most relevant to the subject development proposal. I note the wider policy context in terms accommodating renewable energy type projects in the county and also notably within the Shannon Municipality District Plan in volume 3 which strongly support the nature of the proposal before the Board. This is evident throughout the written statement in Volume 1 and also in the Renewable Energy Strategy as contained in Volume 5. I refer the Board to the key objectives as detailed in full in the table in Appendix 1a. This table also lists the key criteria contained in the previous development plan pertaining at time of my initial assessment as against the comparative criteria in the current CDP.

6.2.2. In respect of its status as queried by the Board, the planning authority confirms that the Shannon LAP 2012-2018 still stands as an operational plan. The basis for this is

the wording of the current development plan 2023-2029 which provides that while the Clare County Development Plan 2023-2029 is the primary policy document for the entire functional area of Clare County Council, the Town of Shannon has its own dedicated Local Area Plan, namely the Shannon Town and Environs Local Area Plan 2012-2018 (as amended), which contains the zoning map for the town. It is confirmed in the latest submission by the planning authority that the new Shannon Town and Environs Local Area Plan is anticipated to commence in 2024 in accordance with the written statement which states that this is to be carried out during the life of this plan.

6.2.3. In the previous Clare County Development Plan 2017-2023 which was active at the time of the planning application and appeal dates, the Shannon LAP 2012-2018 was stated to be applicable and the proposal was assessed against the criteria of this LAP particularly in the context of the zoning objectives in that plan and also within the wider framework of the CDP as set out in the written statement and the Clare Renewable Energy Plan appended as part of that CDP.

6.2.4. The role of the LAP is explained in Section 2.3.5 of the CDP 2017-2023 under the heading 'Settlement Plans and Local Area Plans' wherein it is part of a tiered plan led approach and this framework has been carried through to the current plan. **'**The Planning and Development Act, 2000 (as amended) introduced a tiered and plan-led system, setting out a framework to give more detailed and localised effect to the policies and objectives of the County Development Plan. As indicated in Chapter 1, the Clare County Development Plan 2017-2023 will govern the overall land-use objectives for County Clare. Volume 3 of this Development Plan contains settlement plans for all of the settlements in the County with the exception of Shannon which, has a dedicated local area plan. Ennis will also have a dedicated local area plan prepared for it within the lifetime of this Plan to support its sustainable development into the future.'

6.2.5. Accordingly, I am satisfied that with respect to site-specific policies and objectives, the current development plan policy context is that as set out in the Shannon Town and Environs Local Area Plan 2012-2018 (as amended). Adherence to development plan objectives in my assessment in report of December 2022 was by reference to this plan and this remains relevant. In respect of compliance with the current development plan I conclude that :

- The provisions of the Shannon LAP 2012-2018 still apply. Noting the planning authority comments, this is most relevant in respect of localised zoning in the LAP, whereas the wider policy provision for climate action, energy and rural enterprise are framed by the written statement of the current CDP.
- The current status of the land zoning is 'enterprise' in LAP and this provides for bioenergy development.
- The proposed energy development is supported in the section 2 (Climate Action) of the CDP 2023-2029 as it provides for enterprise in the energy sector and specifically accords with CDP2.15 which states it is an objective 'To support the development of enterprises that create and employ green technologies in County Clare….'
- The nature of the use as a means to providing renewable energy from a locally produced by-product accords with principles of a circular economy and is consistent with objectives CDP3.3, CDP6.17, CDP 8.11 and 8.12 in respect of supporting efficient self-sustaining renewable energy development.
- The location of the site in the context of Shannon Town and industrial zones and its identification as a location of low carbon commerce with potential for district heating together with the level of projected heat demand is suited to the nature of the proposal insofar as it provides for combined heat and power. (section 2.9.5 and CDP2.17 support district heating from indigenous resources)

6.2.6. I also had regard to the Clare Renewable Energy Strategy. Appendix 1(b) compares the previous and current strategy in respect landscape and type and use of biomass. While the maps identifying a hierarchy of heat demand centres in the previous strategy are not in the current one, I note that Shannon is identified as having potential for CHP and District heating having regard to detailed studies on energy needs. (section 8.4.4). I further note that:

- Shannon LAP in respect of its objectives for energy needs and CHP and the subject site have been considered as part of this strategy and I consider Shannon LAP remains relevant in this regard.
- Wood process by-product is identified as an accessible resource.
- The role of Biomass in CHP is also quantified.

- RES8.2 supports bio-energy plants that are close to points of demand and source and proximate to a network. The area around the Shannon estuary in the vicinity of the site is identified as a suitable location for biomass resource.
- RES8.4 supports sustainable energy crops.
- The strategy has been subject to both SEA and AA. There are no changes identified in the receiving environment in terms of designations.

6.2.7. In terms of the nature of the energy it is useful to recap that bioenergy is a low-carbon renewable energy that can be used to replace carbon intensive fossil fuels and in this case the biomass woodchip comes from forest harvest residues sourced in the region. This technology as described by the applicant is carbon negative due to the 'baked' processing in an oxygen starved environment - it is not a woodchip burner as is associated with a conventional CHP biomass plant. There is much emphasis on the by-product nature and accordingly I am satisfied it complies with the current Clare Renewable Energy Strategy.

6.3. National Policy -Climate Action Plan

6.3.1. I also highlight the up-to-date national policy governing bioenergy in both a global geo-political context and as contained in the current Climate Action Plan and its Action List adopted early this year and since the writing of my report completed 2nd December 2022 . Of particular note is the emphasis on bioenergy in a local context where supply and demand are spatially aligned. From my reading of The Clare Renewable Strategy, the planning authority has considered these factors and identified biomass resources relative to demand centres. The subject site is also acknowledged as proximate to a potential renewable energy location in what I consider to be in accordance with spatial strategy criteria in the current Climate Action Plan.

6.4. The emphasis on community gain is more emphasised and the provision for District Heating complies with a localised focus. The involvement of stakeholders is a wider management issue outside the planning realm and this is, I consider, an issue that could be achieved though grant support which appears to be a significant feature in an expanding bio-energy sector. I do not consider the management structure of the operation should be subject to detailed planning considerations.

6.4.1. Policy has also become more honed with respect to feedstuff for bioenergy in terms of achieving sustainable energy. Clearly if the net output in the process results in an

increase in greenhouse gas then the justification is open to question. However, in relation to forestry there is increased regulation on forestry management and its input into bio-energy. The basis for much of this is broadly captured in 2018/841 (LULUCF) which has informed the Climate Action Plan and in turn the Development Plan. While I consider the matter of sustainable feedstuffs to be substantially regulated through the forestry regulatory framework, I make further comments on this in the wider European regulatory context.

6.5. European Regulatory Context

6.5.1. I have also had regard to more recent changes in European Directives and status of transposition into Irish legislation. The most salient is the Climate Action Plan 2023 which I note is referenced in the current CDP, however the Annex of Actions (March 2023) is not likely to have been fully embedded in the detailed objectives. The Directives are increasingly focused on an increased share of renewable energy and sustainable energy sources ensuring a net sustainable outcome of energy projects. Target levels for production of renewable energy were upped as part of EU's strategy in REPowerEU Plan to avoid reliance on Russian fossil fuel imports as soon as possible. The European Green Deal also seeks a larger share of renewable energy to achieve a more sustainable use of bioenergy in line with ambitious climate goals. Stricter criteria is also intended in the future to apply to smaller installations (equal or above 7.5 MW) rather than the 20 MW threshold in the (RED) directive. There is also agreement at EU level to include provisions to ensure that forest biomass is not sourced from certain areas with a particular importance from a biodiversity and carbon stock perspective. In addition, the agreed rules establish that woody biomass will have to be used according to its highest economic and environmental added value (so-called cascading use). Notably, agreement at EU level promotes a gradual shift from conventional biofuels to advanced biofuels such as that produced from non-recyclable waste and residue which is consistent with the proposed development. The EU's Biodiversity Strategy incorporates all forms of biomass but with minimal use of whole trees. Given the nature of the proposal reliant on by-products of a regulated forestry sector, support for the proposal is I consider, in principle further strengthened as compared to the earlier policy context.

6.5.2. Accordingly, the changes in this regard in EU policy framework further support the nature of the proposal. While the nature of the proposal, in its processes and

strategic location, appear to meet much of the sustainability criteria, the quantification of net gain in terms of greenhouse gas (GHG) emissions is not clearly presented. The EU directives and regulations indicate increased fine-tuning of measures and methodologies for calculation, regulation and assessment of GHG. For example SI no.350/2022, European Union (Renewable Energy) Regulations (2) 2022 which was post planning application, sets out means of compliance with sustainability criteria for certain schemes and for renewable energy obligations using biomass fuels. These regulations are not explicitly applicable to the subject development (which is understandable due to the dates). They apply to 'supported' (defined in Appendix 2) schemes of a certain size. The Sustainable Energy Authority Ireland (SEAI) in these cases requires a statement of compliance with sustainability criteria and GHG emissions savings. With respect to calculating the GHG, I consider this matter has yet to be fully incorporated into development management guidelines under the Planning Acts. In the absence of detailed methodologies for calculating GHG I do not consider it strictly within the current scope of the Board's consideration to quantify net gain other than being satisfied that the proposal does not obviously conflict with European policy and objectives for renewable energy. This aspect would appear to be likely reviewed as part of a grant support system administered by the SEAI. The discipline of bio-economics is also developing in tandem with businesses being subject to a form of sustainability auditing. However as a further safeguard I consider a condition providing for a form of audit and statement of compliance to sustainability criteria and GHG savings in accordance with best available technology/best practice is reasonable in the event that the project falls outside the scope of those regulations and SEAI governance.

6.5.3. I also consider it appropriate, further to my report, to clarify the scope of inputs to fall within the applicable interpretations and definitions in the regulations (SI no.350/2022, European Union (Renewable Energy) Regulations (2) 2022) which refer back to the directive, such that that only forestry by-products are used and that the forestry residue for advanced biofuel as proposed is defined as per Part A of Annex IX of Directive 2018/2001. Notably forestry residue feedstuffs for advanced biogas/biofuel is defined in sub section (o) of this Annex as "Biomass fraction of wastes and residues from forestry and forest-based industries, namely, bark, branches, precommercial thinnings, leaves, needles, tree tops, saw dust, cutter shavings, black liquor, brown liquor, fibre sludge, lignin and tall oil;" The Board may

consider adding this sub section in conditions of permission for further clarity. Conditions in this regard are in addition to the regulatory provisions for the forestry sector through the Forestry Programme. While there may be a degree of overlap, I consider it safeguards against concerns about gaps in the regulatory framework.

6.6. Conclusion

6.6.1. In conclusion, in my opinion, neither the Applicant's nor Local Authority's responses raise any new matters for consideration, Notwithstanding, I have considered the current development plan which includes the current Clare Renewable Energy Strategy and the context it provides for the extant status of the Shannon LAP 2012-2018, as amended, as provided for in the current county development plan pending its review. I have also considered the policy context having regard to the current Climate Action Plan 2023 and the associated Annex of Actions, both having come into force since my previous report of December 2022. Furthermore, in view of the changing regulatory framework since the assessment carried out in my report and with particular emphasis on sustainable forestry, I have also had regard to the context of the European Directives in relation Renewable Energy such as in the RED II and REDIII and the focus on achieving a net gain in terms of carbon footprint. I have reviewed the significance of this and consider the conditions should be modified. I am otherwise of the opinion that my original recommendation should be upheld. I remain of the opinion that the proposed development is consistent with the proper planning and sustainable development of the area.

6.6.2. As compared to my previous wording in the reasons and consideration, in view of the foregoing, I recommend that the wording being updated to reflect these considerations.

7.0 Recommendation

I recommend that Permission should be granted with an amended order as set out below.

Matters Considered

In making its decision, the Board had regard to those matters to which, by virtue of the Planning and Development Acts and Regulations made thereunder, it was

required to have regard. Such matters included any submissions and observations received by it in accordance with statutory provisions.

Reasons and Considerations

In coming to its decision, the Board had regard to the following:

(a) the policies and objectives set out in the National Planning Framework and the Regional and Spatial Economic Strategy for the Southern Regional Assembly

(b) the policies and objectives set out in the **Clare County Development Plan 2023-2029 and the Shannon Local Area Plan 2012-2018** as amended

(c) the provisions of the **Climate Action Plan 2023** (Government of Ireland)

(d) the National Energy Security Framework April 2022 (Government of Ireland)

(e) the Draft Bioenergy Plan (Department of Communications, Energy and Natural Resources, 2014)

(f) the National Policy Statement on the Bioeconomy (Government of Ireland, 2018)

(g) the Waste Action Plan for a Circular Economy – National Waste Policy 2020-2025 (Department of Environment, Climate and Communications)

(h) Framework and Principles for the Protection of the Archaeological Heritage (Department of Arts, Heritage, Gaeltacht and the Islands, 1999)

(i) the nature, scale and design of the proposed development

(j) the pattern of existing and permitted development in the area

(k) the planning history of the site and the surrounding area

(l) the submissions and observations received, and

(m) the report of the Inspector.

Appropriate Assessment

The Board agreed with the screening assessment and conclusion carried out in the Inspector's report that the:

- Lower River Shannon SAC (site code 0002165)
- River Shannon and River Fergus Estuaries SPA (site code 004077)

are the European sites for which there is a likelihood of significant effects. The Board noted the decision of the Planning Authority and submissions from third parties and

prescribed bodies regarding the potential for significant effects on the other European Sites within an approximately 15km radius of the site but agrees with the conclusion in the Inspector's report that significant effects are not likely on these sites having regard to the absence of surface water and/or groundwater pathways; the separation distance involved; and the nature/sensitivity of their qualifying interests.

The Board considered the Natura Impact Statement and all other relevant submissions and carried out an appropriate assessment of the implications of the proposed development for European Sites in view of the above sites' Conservation Objectives.

The Board considered that the information before it was sufficient to undertake a complete assessment of all aspects of the proposed development in relation to the sites' Conservation Objectives using the best available scientific knowledge in the field. The Board accepted the Inspector's conclusion that it is not feasible or practical to assess the impacts of biomass supply or waste products over a multiplicity of sources/destinations, particularly under the circumstances when these activities are already occurring and will be suitably controlled by good forestry practice and legislation, and determined that the cumulative impacts of these activities do not form part of the Appropriate Assessment of this project**.** In completing the assessment, the Board considered, in particular, the following:

- Site Specific Conservation Objectives for these European Sites,
- Current conservation status, threats and pressures of the qualifying interest features, likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,
- Submissions from observers, prescribed bodies and the reports of the Planning Authority, and
- Mitigation measures which are included as part of the current proposal.

In completing the Appropriate Assessment, the Board accepted and adopted the Appropriate Assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the aforementioned European Sites. The Board identified that the main likely impacts arising from the proposed development on the European Sites would arise from water and air quality impacts at

construction and operational stages. Having regard to these potential impacts and the avoidance and mitigation measures as set out in the Natura Impact Statement, the Board concluded that the proposed development, subject to the identified mitigation measures, would not adversely affect any of the habitats or species within the relevant European sites. In the overall conclusion, the Board was satisfied that the proposed development would not adversely affect the integrity of the European sites in view of the site's conversation objectives and there is no reasonable scientific doubt as to the absence of such effects.

Environmental Impact Assessment Screening Determination

The Board completed an environmental impact screening assessment of the proposed development, taking into account:

(a) the nature, scale and extent of the proposed development, which is under the mandatory threshold in respect of Class 2(a) of Part 1 Schedule 5 – Thermal power stations or other combustion installation with a heat output of 300megawatts and of Class 3 (a) of Part 1 Schedule 5 – Industrial installations for the production of electricity, steam, hot water not included in Part 1 of the schedule with a heat output of 300 megawatts or more.

(b) the location of the site on lands that are zoned 'Enterprise' under the provisions of Shannon and Environs LAP 2012-2018 (as amended) in accordance with the Clare County Development Plan 2017-2023, and the results of the strategic environmental assessment of that plan, undertaken in accordance with the SEA Directive (2001/42/EC);

(c) the location of the site north of Shannon Airport and outside a large settlement area and which is proposed to be connected to public infrastructure, and the existing pattern of residential development in the vicinity;

(d) the location of the site outside of any sensitive location specified in article 109(4) (a) of the Planning and Development Regulations 2001 as amended and the absence of any relevant connectivity to any sensitive location;

(e) the schedule 7 A and associated documentation submitted with the application,
(f) the guidance set out in the 'Environmental Impact Assessment (EIA) Guidance for

Consent Authorities regarding Sub-threshold Development', issued by the Department of the Environment, Heritage and Local Government (2003), and;

(g) the criteria set out in Schedule 7 of the Planning and Development Regulations 2001 as amended, and

(h) the inspector's screening report

It is considered that the proposed development would not be likely to have significant effects on the environment, and submission of an environmental impact assessment report is not therefore required.

Conclusions on Proper Planning and Sustainable Development

The Board considered that the proposed development would be in accordance with national, regional and local policy relating to energy and climate action, notwithstanding that the proposal does not include a connection to district heating network . The Board had particular regard to the site specific objectives in 'E3' of the Shannon and Environs Local Area Plan , 'To support and facilitate the development of site (E3) for a large scale strategic Green Energy development and distribution network , where appropriate to assist in the delivery of a low carbon industrial, commercial and business environment meeting the existing energy requirements of the town and business and enhancing the capacity to attract further industry /employment to the town,' as part of a plan led approach to developing a biomass energy supply and considered that the proposed development was compliant in principle with the policies and objectives set out in the Clare County Development Plan 2022-2029 and the Shannon and Environs Local Area Plan 2012-2018, as amended. In this context, the Board considered that, subject to compliance with the conditions set out below, the proposed development would be acceptable at this location adjoining the planned industrial expansion of Shannon industrial zone, would not unduly conflict with the preservation of archaeological heritage, would not give rise to environmental pollution, would not seriously injure the residential or visual amenities of the area, and would be acceptable in terms of public health and aviation and road traffic safety. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application on the 30th day of September 2020 and further information lodged on 14th day of May 2021 and further details submitted on 14th September 2021 by the applicant to the Board in response to the grounds of appeal , except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

   Reason: In the interest of clarity.

2. (a) This permission shall apply for a period of 20 years from the date of this order. The bio-energy plant and associated infrastructure within the site shall then be removed unless prior to the end of that period, planning permission shall have been granted for their retention for a further period.
   (b) The site shall be reinstated on removal of structures and ancillary structures. Details relating to the removal and reinstatement to grassland shall be submitted to and agreed in writing with the planning authority at least six months before the date of expiry of this permission .
   Reason: To enable the impact of the development to be re-assessed, having regard to the changes in technology, design and regional energy needs during the specified period.

3. The following limits and requirements shall be complied with in the gasification and methanation process:
   (a) A maximum of 133,000 tonnes per annum of raw (wet) materials shall be processed in the bio-energy plant.
   (b) The biomass supply shall comprise forestry by-products as described in the submitted details and shall be within the parameters of descriptions as defined in S.I. No. 350/2022 European Union (Renewable Energy) Regulations (2) 2022. The advanced biofuels and

biogas shall be produced from the feedstock as described in the submitted details and within the parameters of definition for such feedstocks listed Part A of Annex IX of the Renewable Energy Directive.

(c) The biomass suppliers shall be within a 75km distance from the site.

Reason: In the interests of clarity

4. The development of by-products from the effluents other than bottom ash generated by the gasification and methanation process as referred to in the Technical Report: Effluents (as contained in Appendix D) of the Response to the grounds of appeal submitted on 21st September 2021 shall be omitted in the absence of a prior grant of planning permission or licensing for such processes.
   Reason: In the interest of clarity

5. (a) Details including samples of materials colours and textures of all the external finishes to the proposed structures and buildings shall be submitted to an agreed in writing with the planning authority prior to commencement of development.
   (b) Details of plans and elevations of the office and control buildings (Marked 24 and 25 on the submitted site layout drawings) at the site entrance shall be submitted for written agreement.
   Reason: In the interest of visual amenities of the area.

6. The developer shall ensure that all mitigation measures set out in the Environmental Planning Report and Natura Impact Statement submitted with the application and as amended in further submissions, shall be implemented in full, except as may otherwise be required in order to comply with the following conditions.
   Reason: In the interest of clarity and the protection of the environment during the construction and operational phases of the development.

7. Details of aeronautical requirements including height and design of flu stack and other high plant such as cranes, shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Subsequently the developer shall inform the planning authority, Shannon Airport Authority and the Irish Aviation Authority of the co-ordinates of the 'as constructed' positions of the flu stacks and details as required of flare times and use of cranes or other non-stationary tall plant/equipment.
Reason: In the interest of air traffic safety.

8. Permission is hereby granted on the basis that the maximum quantity of biogas and/or other fuels or chemicals present on the site at one time can never exceed the relevant lower tier thresholds under the Seveso Directive. Prior to the commencement of development, the developer shall submit details for the written agreement of the Planning Authority that clearly demonstrate compliance with these limits, including details of operational controls to limit the quantities, such as, but not limited to, the monitoring of liquid levels in tanks, monitoring biogas concentrations in the vapour spaces of the tanks, and the use of flaring to manage inventory.
Reason: In the interests of clarity and to prevent the facility from becoming an establishment for the purposes of the Seveso III Regulations.

9. The atmospheric emission values shall be in accordance with the expected levels set out in Appendix O of the further information submitted the planning authority on 14th May 2021, unless otherwise agreed in writing with the planning authority prior to commission of operations.
Reason: to control air pollution and in the interest of public health.

10. At least one month before final commissioning, the operator shall submit a Syngas Monitoring Methodology for written agreement with the planning authority detailing how representative sampling and analysis if syngas will occur, to demonstrate that it meets the limits specified in the submitted

documentation (Table 1 of Technical Report : Emission form EQTEC Gasification Plants – Appendix O of further information submitted tot eh planning authority) . The methodology shall include but not be limited to:

(a) Sample point location and evidence of homogenous sample collections,

(b) Details of sampling methods, including duration, for representative sampling across different operating loads and biomass feedstock.

(c) Sample analysis methods, limits of detection and availability of laboratory accreditation methods,

Reason: to control air pollution and in the interest of public health.

11. (a)The noise levels generated during the operation of the development shall not exceed the following limits; 55 dB(A) during daytime, 50 dB(A) during evening time and 45dB(A) during night-time when measured at the nearest occupied house. When measuring the specific noise the time shall be any one-hour period.

(b)The developer shall implement all noise mitigation measures as set out in the Planning and Environmental Report and as amended by the further Information,

(c)During the night-time period no tonal or impulsive noise from the facility should be clearly audible or measurable at any dwelling.

(d)The noise from the facility shall not be so loud, continuous, repeated or of a duration or pitch so as to give reasonable grounds for annoyance.

(e)The applicant shall carry out an annual noise survey at of the nearest sensitive location and submit results to the planning authority.

Reason: In order to protect the amenities of property in the vicinity.

12. An annual report on the operation of the facility hereby permitted shall be submitted to the Planning Authority. The content of this report shall be as agreed in writing with the Planning Authority and shall include inter alia the following:

(a) Details of the source of all biomass feedstock and final disposal areas of residual matter,

(b) The volumes of raw/wet materials treated in the plant in the previous 12 months,
(c) The volume and weight of dry materials processed and stored in the previous 12 months, and
(d) The volume and weight of fuel produced/stored on site in the previous 12 months.
(e) A statement of compliance with sustainability criteria and GHG savings in accordance with best available technology/best practice.

Reason: In the interest of orderly development and to ensure compliance with the parameters set out in the application.

13. Prior to the commencement of development, the developer shall submit for the written agreement of the Planning Authority a breakdown of supply sources, which shall be within a 75km catchment, to the development with associated calculations that confirm the capacity to meet the requirements for energy and heat output per annum as outlined in the submitted documentation.
Reason: In the interest of public health and to ensure a proper standard of development.

14. Water supply and drainage arrangements, including the attenuation and disposal of surface water shall comply with the requirements of the planning authority for such works and services. In this regard the following shall apply:
(a) Prior to commencement of development the developer shall enter into a Connection Agreement with Irish Water to provide for a service connection to the public water main.
(b) A breakdown of water supply needs shall be provided.
(c) All water infrastructure shall be constructed in accordance with the Irish Water's Standard Details and Code of Practice.
(d) The tankering of foul water from the site is not permitted. In this regard foul waste water disposal shall be via an approved connection to the public foul sewer.
(e) All surface water drainge infrastructure including works associated with culverting the stream on site, attenuation facilities, silt traps and

hydrocarbon interceptors shall be provided on site in accordance with revised details lodged to the planning authority on 14th May 2021 (Civil Works report)

(f) All process wastewater generated on site shall be tankered off site to a licensed facility using a permitted contractor. Records shall be retained on site of all wastewater removed off-site.

(g) To prevent/minimise nuisance odour at the facility appropriate measures and infrastructure shall be implemented to manage and contain wastewaters, including purge and sludge. Temporary storage of process waters and sludges shall only be in sealed and appropriate tankers.

(h) Prompt and frequent removal of wastewater/sludge shall be undertaken to avoid odour nuisance.

Prior to commencement of operation, a report detailing the following should be submitted for the written agreement of the planning authority and shall contain:

(i) Quantities of wastewater/sludges to be generated.

(ii) Details of waste storage on site (sealed tanker or otherwise) and frequency of its removal off site for disposal.

(iii) Details of the facility to which such wastewater/sludges will be directed.

(i) All hazardous chemicals including oil shall be stored in appropriately sized bunded areas indoors.

(j) In the event of accidental spillage, the emergency response plan shall be implemented and the local authority and Inland fisheries shall be promptly notified.

Reason: In the interest of public health and to ensure a proper standard of development.

15. The development shall be operated and managed in accordance with an Environmental Management System (EMS) which shall be submitted by the developer and agreed in writing with the planning authority prior to commencement of development. This shall include the following:

(a) Proposal for the suppression of on-site noise and monitoring at sensitive receptors.

(b) Proposal for the suppression of dust on site and on the surrounding roads.

(c) Proposal for the bunding of fuel, lubrication storage areas and any other substance as required by the planning authority and details of emergency action including warning sign in the event of accidental spillage/leakage.

(d) Details of safety measures for the fencing.

(e) Specification of limits in relation to the following parameters, NO_x, SO_2, CO and PM_{10} particulate matter.

(f) Monitoring of ground and surface water quality, levels and discharges.

(g) Details of Site Manager and public information signs at entrance.

Reason: In order to safeguard the environment and local amenities.

16. The developer, as part of risk management of the site operations, shall

(a) appoint a Project Supervisor for the Design Process (PSDP) and Project Supervisor for the Construction Stage (PSCS) to design and manage risk assessment until construction is completed and to ensure the management structure is in place to facilitate appropriate compliances.

(b) implement a Supervisory Control and Data Acquisition (SCADA) system at operation stage, to monitor the plant performance and operators to prevent emergency situations.

Details of these measures shall be submitted to the planning authority for written agreement prior to the commencement of development.

Reason: In the interest of public health and safety.

17. The developer shall implement measures to reduce environmental risks associated with re-fuelling, greasing and other activities within the site. Such measures may include the use of spillage mats and catch trays. Such measures shall subject to written agreement of the planning authority prior to commission of use.

Reason: In order to protect groundwater and surface water

18. The invasive species (Japanese Knotweed) located on the site shall be contained and eradicated in accordance with the details submitted in the Appendix J of the of the Further Information submitted to the planning authority on 14th May 2021.

Reason: To prevent the spread of invasive species in the interest of ecology of the area.

19. Within six months from the date of this order the developer shall establish a local consultative group including representative of the developer and members and representatives of the local community . This group shall constitute a forum to address operational issues of the plant which are considered to impact on the local community.
Reason: in the interest here of protection of amenity and planning control.

20. (a) Prior to the commencement of development, and on an annual basis post operation, the developer shall submit a mobility plan setting out the haul routes to and from the site for the agreement of the Planning Authority. The plan shall indicate the main biomass suppliers and waste locations and demonstrate as far as is practicable how routes to and from the site to these locations are restricted to the primary routes and avoid residential areas.
(b) All deliveries to and from the site shall be via Heavy Goods Vehicles and hauliers shall be contractually obliged to adhere to the haul routes agreed in this condition.
Reason: In the interests of traffic safety and to safeguard the amenities of the area.

21. Biomass Supply deliveries to the site and transport waste and fuels/biogases from the site shall be confined to between the hours of 0700 to 1900 Monday to Friday and between the hours of 0900 to 1500 on Saturday and Sunday.
Reason: In the interest of orderly development and the residential amenity of surrounding dwellings.

22. Prior to the commencement of development, the developer shall prepare s Stage II Road Safety Audit in accordance with current TII standards submit details for the written agreement of the planning authority of the proposed entrance arrangements and compliance with the recommendations of the Road Safety Audit, including details of loading bays, turning, signage, lighting and road markings.
Reason: In the interest of traffic safety.

23. Parking (car and bicycle) shall be provided in accordance with a detailed layout which shall be submitted to and agreed in writing with the planning authority prior to commencement of development . One car space shall be reserved for persons with impaired mobility.
Reason: To ensure satisfactory parking layout in the interest of pedestrian nd traffic safety and of visual amenity.

24. Following further ground investigations and prior to the commencement of development on site, the developer shall submit for the written agreement of the planning authority details of the proposed foundation and bund design. Proposals shall clearly demonstrate that mitigation measures relating to the protection of the watercourse, soil, geology, hydrogeology and groundwater have been appropriately incorporated into the design.
Reason: In the interest of clarity and the protection of the environment during the construction and operational phases of the development.

25. Landscaping of the site shall be carried out in accordance with a landscaping scheme which shall include planting of deciduous trees and retention of hedgerows along the site boundaries, all of which shall be protected from damage, and enhanced in such a manner as to ensure that their value as a commuting and foraging habitat is protected. A Landscape Plan clearly detailing proposals in this regard, including the precise extent of existing hedgerow to be retained, shall be submitted to and agreed in writing with the planning authority prior to commencement of development.
Reason: To ensure the protection of the hedgerow habitat and in the interest of visual amenity.

26. The developer shall facilitate the planning authority in preserving, recording, or otherwise protecting archaeological materials or features that may exist within the site. In this regard, the developer shall
    (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,

(b) employ a suitably qualified archaeologist who shall monitor all site investigations and other excavation works, and

(c) provide satisfactory arrangements for the recording and removal of any archaeological material which may be considered appropriate to remove.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation of any remains which may exist within the site

27. Site development and building works shall be carried out only between the hours of 0730 to 1900 Mondays to Fridays inclusive, between 0800 to 1400 hours on Saturdays and not at all on Sundays and public holidays. Deviation from these times will only be permitted in exceptional circumstances where prior written approval has been received from the planning authority.
Reason: In order to safeguard the residential amenities of property in the vicinity.

28. The construction of the development shall be managed in accordance with a Construction and Environmental Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall incorporate all the construction stage mitigation measures outlined in the Natura Impact Statement, and shall provide details of intended construction practice for the development, including and not limited to:

(a) location of the site and materials compound(s) including area(s) identified for the storage of construction refuse,

(b) location of areas for construction site offices and staff facilities,

(c) details of site security fencing and hoardings,

(d) details of car parking facilities for site workers during the course of construction,

(e) details of the timing and routing of construction traffic to and from the construction site and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the site if required,

(f) measures to obviate queuing of construction traffic on the adjoining road network,

(g) measures to prevent the spillage or deposit of clay, rubble, or other debris on the public road network,

(h) alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public road or footpath during the course of site development works,
(i) details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels,
(j) containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater,
(k) details of construction lighting,
(l) details of key construction management personnel to be employed in the development, and
(m) Means to ensure that surface water run-off is controlled such that no silt or other pollutants enter local surface water sewers or drains.
(n) invasive species management.

A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan and monitoring results as appropriate shall be kept for inspection by the planning authority.

Reason: In the interest of amenities, environmental protection, public health, and safety.

29. Monitoring of the construction phase shall be carried out by a suitably qualified and competent person to ensure that all mitigation measures outlined in the Natura Impact Statement are fully implemented. In addition, the designated member of the company's staff shall interface with the planning authority and members of the public in the event of complaints or queries in relation to environmental emissions. Details of the name and contact details, and the relationship to the operator of this person shall be available at all times to the planning authority on request whether requested in writing or by a member of staff of the planning authority at the site.

Reason: To safeguard the amenities of the area.

30. Construction and demolition waste shall be managed in accordance with a construction waste and demolition management plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall be prepared in accordance with the "Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects", published by the Department of the Environment, Heritage and Local Government in July 2006.
Reason: In the interest of sustainable waste management.

31. All solid wastes arising on the site shall be recycled as far as possible. Materials exported from the site for recovery, recycling or disposal shall be managed at an approved facility and in such a manner as is agreed with the Planning Authority. In any case no such wastes shall be stored on the site except within the confines of the buildings on site. Adequate on-site arrangements for the storage of recyclable materials prior to collection shall be made to the satisfaction of the Planning Authority.
Reason: To safeguard the amenities of the area

32. Lighting shall be provided in accordance with a scheme, details of which shall be submitted to, and agreed in writing with the planning authority prior to commencement of development. The scheme shall minimise obtrusive light outside the boundaries of the development at all times and shall comply with the requirement of Shannon Airport Authority.
Reason: In the interest of public safety and amenity

33. An odour management plan, which shall include a monitoring programme, shall be put in place by the developer in respect of the operation phase of the development. The nature and extent of the plan and the monitoring sites shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. The results of the programme shall be submitted to the planning authority on a monthly basis for the first year after commissioning and on 6 month basis thereafter.
Reason: To protect the amenities of the area.

34. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

    Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission

Suzanne Kehely
Senior Planning Inspector
8th December 2023

Appendix 1 (a)

CDP 2017-2023 As cited in report	**CDP 2023 -2029** Adopted as interim CDP pending variations on foot of Ministerial Direction.
CDP6.18[1] Development Plan Objective: Green Technology: It is an objective of the Development Plan: To **support the development of low carbon and green tech businesses and industries** throughout the County	Climate action has shifted to Chapter 2 in place of the Core strategy in the previous plan. Section 2.9.1 sets out the CDP approach to Transition to a Low Carbon Economy and Society CDP2.14 Development Plan Objective: It is an objective [*inter alia*] of Clare County Council: a) To facilitate measures which will accelerate the transition to a low carbon economy and a circular economy through mechanisms such as the Climate Action Competitive Fund; b) **To support the development of enterprises that create and employ green technologies** and to promote County Clare….
CDP 10.10 Development Plan Objective: Bioenergy It is an objective of the Development Plan: To encourage the **development of bioenergy opportunities, facilities and associated rural enterprises in the countryside** in appropriate locations where such developments do not have a significant negative impact on the environment	Chapter 6 identifies the county's potential for renewable energy production. (section 6.18) CDP 6.17 It is an objective of Clare County Council: a) To contribute to the economic development and enhanced employment opportunities in the county by: i) **Enabling the development of a self-sustaining, secure, reliable and efficient renewable energy supply and storage for the County in line with CDP Objective 3.3**; ii) **Facilitating the county to become a leader in the production of sustainable and renewable energy for national and international consumption through research, technology development and innovation;** and iii) **Supporting on-land and off-shore renewable energy production by a range of appropriate technologies** in line with CDP Objective 3.3 which refers to environmental considerations. Chapter 8 Rural Development and Natural Resources Bio-Energy CDP8.11 It is an objective of Clare County Council: To support initiatives for energy research funding **and to encourage the development of bio-energy opportunities, facilities and associated rural enterprises in the countryside** in appropriate locations where such activities do not have a significant negative impact on the environment and where they assist in the move away from fossil fuels to green energy

[1] CDP6.19 should read CDP6.18 in my report dated 2nd December 2022

CDP 10.11 Development Plan Objective: Renewable Energy Development It is an objective of the Development Plan: To **facilitate the development of renewable energy developments in rural areas in accordance with the adopted Clare Wind Energy Strategy and Renewable Energy Strategy** and the associated SEA and NIR (and any subsequent strategies)	CDP8.12 It is an objective of Clare County Council: To **support the implementation of the National Renewable Energy Action Plan (NREAP), the Clare Wind Energy Strategy and the Clare Renewable Energy Strategy to facilitate the development of renewable energy developments in rural areas** to meet national objectives towards achieving a low carbon economy by 2050 subject to the requirement of the RES SEA Environmental Report and the mitigation measures arising from the CDP Appropriate Assessment as contained in Volume 10(a). Chapter 11 Physical infrastructure Environment and Energy provides for a range of energy types by reference to the Renewable Energy Strategy which specifically refers to bioenergy. Section 11.8.5 refers to renewable energy: Large scale renewable energy projects should seek to provide a **community gain element** in establishing such infrastructure in local areas as outlined in the Programme for Government. The National Energy and Climate Plan 2021-2030 outlines the need to facilitate community participation and to support up to 10% community renewable electricity. CDP11.47 It is an objective of Clare County Council: a) To encourage and to favourably consider proposals for renewable energy developments, including community owned developments, and ancillary facilities in order to meet National, Regional and County renewable energy targets, and to facilitate a reduction in CO2 emissions and the promotion of a low carbon economy; b) **To assess future renewable energy-related development proposals having regard to the Clare Renewable Energy Strategy 2023-2030 in Volume 5 of this plan and associated SEA and AA;** c) To support the sustainable development of renewable wind energy (on-shore and offshore) at appropriate locations and of its related grid infrastructure in County Clare, in accordance with all relevant policies, guidance and guidelines pertaining to the protection of the environment and protected habitats and species, and to assess proposals having regard to the Clare Wind Energy Strategy in Volume 6 of this plan and the associated SEA and AA, or any subsequent updated adopted Strategy and to national Wind Energy Guidelines; d) To prepare a new and updated Wind Energy Strategy for County Clare during the lifetime of this plan, subject to the publication of the update to the Wind Energy Development

	Guidelines for Planning Authorities 2006; e) To strike an appropriate balance between facilitating renewable and wind energy-related development and protecting the residential amenities of neighbouring properties; f) To support and facilitate the development of new options and technological advances in relation to renewable energy production and storage, that may emerge over the lifetime of this Plan; g) To support the integration of indigenous renewable energy production and grid injection; h) To ensure that all proposals for renewable energy developments and ancillary facilities in the County are in full compliance with the requirements of the SEA and Habitats Directives and Objective CDP3.3 of this plan; and i) To promote and market the County as a leader of renewable energy provision projects by 2030.
Table 18.1Renewable Energy Resource Targets for County Clare for 2020 - Forest wood fuel & Wood Process byproduct are identified one such resource.[2]	
Section 8.5.2 Heat distribution infrastructure such as district heating has potential in the County, particularly in the Shannon Free Zone. The creation of efficient district heating systems would facilitate the development of the indigenous biomass industry, maximise and encourage agricultural diversification and reduce the CO2 emissions associated with heating buildings. CDP18.5 Development Plan Objective: Distributed Heat It is an objective of the Development Plan: To support and encourage the development of Distributed (District) Heating, in compliance with the objectives set out in Chapter 14, as a means of facilitating: a the increased use of heat generated from indigenous, low carbon, renewable resources (bioenergy, solar, geothermal etc.); b the utilisation and distribution of	Section 2.9.5 Renewable Heat Clare County Council considers that there is the opportunity to develop a number of combined heat and power (CHP) plants and associated district heating in the county and particularly in areas of high heat demand. In the Shannon Municipal District, Shannon Town has been the subject of a detailed energy needs study and energy modelling which has identified an existing energy use breakdown of 57% thermal and 43% electric (industrial, commercial and residential sectors) which is a good match for combined heat and power. The creation of efficient district heating systems would facilitate the development of the indigenous biomass industry, maximise and encourage agricultural diversification and reduce the CO2 emissions associated with heating buildings. Renewable Heat CDP2.17 It is an objective of Clare County Council : To support and encourage the development of District Heating, in compliance with the objectives set out in Chapter 14, as a means of facilitating: a) The increased use of heat generated from indigenous, low carbon, renewable resources (e.g. bio-energy, solar and geothermal); b) The utilisation and distribution of useful waste heat from large thermal processes; and c) The utilisation and distribution of useful heat from a combined heat and power (CHP)

[2] Forest wood fuel & Wood Process by-product as a thermal resource account for 128.3GWh/y, 29.3MW in the table 18.1 (Page 268 of CDP 2017-2023)

useful waste heat from large thermal processes; c the utilisation and distribution of useful heat from a combined heat and power (CHP) plant, where such a plant's primary energy is met by indigenous, low carbon, renewable resources (bio energy, solar, geothermal etc.)	plant, where such a plant's primary energy is met by indigenous, low carbon, renewable resources (e.g. bio energy, solar and geothermal) **Development Management** **A1.2.4 Distributed Heating** Pending the issuing of a National Policy Framework for District Heating, the Planning Authority will support and facilitate the use of recoverable heat sources and will encourage larger scale developments to consider future proofing to facilitate the future development of potential district heating, waste heat recovery and utilisation and the use of clean energy technologies.

Clare Renewably Strategy 2017-2023	**Clare Renewably Strategy 2023-2029**
The stie is in a working landscape. Table 6.1 indicate Clare has potential to supply substantial biomass resource	The site is in a working landscape (figure 5.13-3 Landscape Designations) Table 4.3 includes forest wood fuel and wood process by-product as a accessible/planned renewable energy source. The role of Biomass CHP is also quantified.
Section 6.4.1- CHP indicative locations identified in Maps (6.1 and 6.2.[3]).These are based on evidence of heat demand and energy use in the context of the biomass resource. Shannon is the 2nd largest zone of high demand and within a preferred zone for CHP. The zones are also shown in the context of existing forestry and suitable miscanthus planting areas.	RES 8.2 support bio-energy development It is an objective of Clare County Council: A. To support and encourage the development of bio-energy opportunities, facilities, and associated enterprises having regard to the effects of land use change. B. To encourage commercial bio-energy proposals to satisfy the following criteria: • Located close to the point of demand and is served by public roads with sufficient capacity. • In a central location within the supply catchment area in order to minimise road hauls. • Located close to the point of demand to facilitate sustainable district heating networks. • Proximate to grid or gas network or large heat demand end users. In line with national policy and proper planning and sustainable development Map 8.2 Biomass Resource – Miscanthus and Forestry . The area around Shannon and along the estuary to the north of Limerick has extensive tracts of 'Most suitable

[3] Maps 2 in main report should read Map 6.2

	lands in addition to an expansive scattering through the county.
	RES 8.4 Bio-energy promotion It is an objective of Clare County Council: A. To facilitate an increase in the percentage of sustainable energy crops grown throughout County Clare, to prepare a suite of measures that will assist in developing the market for biomass energy crops and facilitate such alternative farm enterprise. B. To promote the installation of district heating schemes. C. To implement best practice in 'green' public procurement. D. To showcase the wood biomass boiler at the Clare County Council headquarters for demonstration purposes and to promote the use of biomass heating for all public buildings within the lifetime of this strategy. Section 8.4.4 CHP and District Heating: Having regard to the 'supply/demand' spatial pattern emerging from examination of woody biomass and energy crops, the Council consider that there is the opportunity to develop a number of CHP plants and associated district heating in the County Areas of high heat demand in County Clare may have potential to accommodate CHP facilities. In the Shannon zone, Shannon town has been the subject of a detailed energy needs study and energy modelling which has identified an existing energy use breakdown of 57% thermal and 43% electric (industrial, commercial and residential sectors) which is a good match for combined heat and power. Moreover, the Shannon Town and Environs Local Area Plan 2012-2018, in sections 3.5.6 and 8.3.2, identifies a site in Shannon which may be suitable for a green energy development, potentially a CHP facility. Table 8.2 summarises the subject proposals with a max export capacity of 5 Mwe Electricity and 14 MWt (Thermal) Areas of high heat demand in County Clare may have potential to accommodate CHP facilities. In the Shannon zone, Shannon town has been the subject of a detailed energy needs study and energy modelling which has identified an existing energy use breakdown of 57% thermal and 43% electric (industrial, commercial and residential sectors) which is a good match for combined heat and power. Moreover, the Shannon Town and Environs Local Area Plan 2012-2018, in sections 3.5.6 and 8.3.2, identifies a site in Shannon which may be

	suitable for a green energy development, potentially a CHP facility
	Map 4.2 Location and Permitted capacity of Renewable Energy Projects in County Clare. The subject proposal is include as Biomass Project – permission pending. – The only one of its type in the county.
	Map 4.1 location and operating capacity of Renewable Energy Projects in County Clare. In this nap Shannon is not included as a CHP site as it is an identification of existing renewable energy projects as explained in section 4.6.

Appendix 2(a) - Summary of the key regulatory and policy changes relating to the bio-energy sector. The list includes EU Directives and policy changes within the year of adopting the current development plan. .

Date	Document/ Changes guiding current development and national policy	Key Policies and objectives
April 2023	Clare County Development Plan 2023-2029 Includes the Clare Renewable Energy Strategy in Volume 5.	The policies and objectives of the previous plan have been substantially carried forwarded and updated. The plan is generally supportive of the principle of advanced bio-fuel production in a range of contexts such as in its policies on enterprise, energy and rural economy in accordance with sustainable principles. Volume 3 identifies Shannon as a being ideally placed as a centre for low carbon commerce. Status of Shannon LAP in terms of zoning remains the same.
July 2022	Section 28 Guidelines Development Plans Guidelines for Planning Authorities, issued	supersede 2017 guidance –reflect more up to date strategies and plans through the Climate Action and Low Carbon Development (Amendment) Act 2021 and the National Development Plan-2030 which reflect the target increase in the share of electricity generated from renewable energy. (referred to on p57 of current CDP)
8 April 2022	Commission Implementing Decisions(EU) 2022/603, (EU) 2022/605,(EU) 2022/607, (EU) 2022/608, (EU) 2022/609, (EU) 2022/611	'REDcert-EU' voluntary scheme for demonstrating compliance with the requirements set in Directive (EU) 2018/2001 of the European Parliament and of the Council for biofuels, bioliquids, biomass fuels, renewable liquid and gaseous fuels of non-biological origin and recycled carbon fuels,
Dec 2022	CAP 23	which informed Development Plan shift in Forestry Strategy from previous CAP 21:

		• Increase annual afforestation rates to 8,000 hectares p.a. from 2023 onwards. • Rethink our Forestry Programme and Vision. • Promote forest management initiatives in both public and private sectors • forests to increase carbon sinks and stores.
Dec 2022	Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change (2017) - revoked	Revoked – but cited as referenced in the CDP preparation
	S.I. No. 76/2022 - European Union (Renewable Energy) Regulations 2022)	Provides for a framework for transposing RED II – sets out SEI role in setting out more detailed framework. give effect to Articles 21 and 22 of Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018[1] and Articles 15 and 16 of Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019. Relate to customer rights/rules, citizen energy involvement framework for renewable energy communities.
15th July 2022	S.I. No. 350/2022 - European Union (Renewable Energy) Regulations (2) 2022 (updated SI 33 0f 2012)	Set out means of compliance with sustainability criteria for participants of a support scheme or renewable energy obligations using biomass fuels. SEAi requires a statement of compliance such criteria and GHG emissions savings. The feedstock and fuel types are defined and include advanced biofuels which are defined by reference to Part A of Annex IX of the Directive 2018/2001) and which includes a range of products including forestry residue in sub section (o) Support scheme is defined as "support scheme" means any instrument, scheme or mechanism established by the Minister that promotes the use of energy from renewable sources by reducing the cost of that energy, increasing the price at which it can be sold, or increasing, by means of a renewable energy obligation or by other means, the volume of such energy purchased, and

		includes, but is not restricted to, investment aid, tax exemptions or tax reductions, tax refunds, renewable energy obligation support schemes including those using green certificates, and direct price support schemes including feed-in tariffs and sliding or fixed premium payments;
13 December 2022	agreement on establishing operational guidance on the evidence for demonstrating compliance with the sustainability criteria for forest biomass laid down in Article 29 of Directive (EU) 2018/2001	forest biomass used for the production of energy is to be considered sustainable if it fulfils the sustainability criteria laid down in Article 29(6) and (7) of Directive (EU) 2018/2001, which deal respectively with forest harvesting and emissions from land use, land-use change and forestry (LULUCF) To minimise the risk of using forest biomass that is not compliant with the sustainable harvesting criteria, economic operators should carry out a risk-based assessment, building on existing sustainable forest management legislation, including monitoring and enforcement systems, in force in the country of origin of the forest biomass. To that end, the harvested forest biomass should be subject to national and sub-national laws and regulations
10 February 2023	Commission Delegated Regulation (EU) 2023/1184 supplementing Directive (EU) 2018/2001	methodology setting out detailed rules for the production of renewable liquid and gaseous transport fuels of non-biological origin
10 February 2023	Commission Delegated Regulation (EU) 2023/1185 supplementing Directive (EU) 2018/2001	establishing a minimum threshold for greenhouse gas emissions savings of recycled carbon fuels and by specifying a methodology for assessing greenhouse gas emissions savings from renewable liquid and gaseous transport fuels of non-biological origin and from recycled carbon fuels
7th March 2023	Annex of Actions	
April 2023	Long-Term Strategy on Greenhouse Gas Emissions Reductions	builds upon the decarbonisation pathways set by the carbon budgets, sectoral emissions ceilings and Climate Action Plan. Biofuels, in particular advanced biofuels from a wider range of waste feedstocks, are identified in the shorter- term as a

		contributing technology renewable electricity for the transport sector.
22nd August 2023	Forestry Programme 2023-27 (to commence on completion of SEA/AA)	
May 2023	Provisional agreement to revise Renewable Energy Directive	promotes a gradual shift away from conventional biofuels to advanced biofuels (mainly produced from non-recyclable waste and residues) and other alternative renewable fuels (e-fuels). The EU Biodiversity Strategy for 2030 considers that this approach should continue for all forms of bioenergy, and the use of whole trees and food and feed crops for energy production – whether produced in the EU or imported – should be minimised.
June 2023	COMMISSION DELEGATED REGULATION (EU) 2023/1640 (5 June 2023) on the methodology to determine the share of biofuel and biogas for transport, produced from biomass being processed with fossil fuels in a common process.	
22nd September 2023	new, recast Energy Efficiency Directive (EU) 2023/1791,	published in the EU Official Journal - will enter into force in 20 days from then. After its entry into force, EU Member States will have two years to transpose most of the different elements in the directive into national law. Energy efficiency is treated as an energy source. Provides for energy auditing.

9th October 2023	Council of adopted the new Renewables Energy Directive. (RED III) Legally binding 18months after entry into force Government has until July end 2024 to implement most of the new EU rules and create infrastructure and renewables generation potential needed urgently.	raises the share of renewable energy in the EU's **overall energy consumption** to **42.5% by 2030 with an additional 2.5% indicative top up to allow the target of 45% to be achieved.** Bioenergy: The directive strengthens the sustainability criteria for the use of biomass for energy, in order to reduce the risk of unsustainable bioenergy production. Member states will ensure that the cascading principle is applied,
2020-2023	Biodiversity strategy 2020 – Bringing nature back into our lives June 2021 - European parliament resolution on this strategy includes statement inter alia on Importance of Forestry, nature restoration, implementation measures eg stresses importance of Non Financial Reporting Directive review to cover climate and biodiversity. June 22 – EC adopts proposals for Nature restoration Law March 2023 – Guidelines on Forests – • Biodiversity – Friendly Afforestation, Reforestation and Tree Planting • Defining, Mapping, Monitoring and Strictly Protecting EU Primary and Old-Growth Forests. July 2023 - Proposal for Directive on soil monitoring	
Mid 2024 1st of deadlines	Corporate sustainability/Transposition of NFRD into Irish legislation regarding certain	

	organisations /public interest entities.	

Appendix 2 (b) Renewable energy and related regulations

- **Commission Delegated Regulation (EU) 2023/1640** of 5 June 2023 on the methodology to determine the share of biofuel and biogas for transport, produced from biomass being processed with fossil fuels in a common process. This was published in the EU Official Journal in18th August 2023.

  Definitions.

  Co-processing typically refers to an oil refinery unit processing biomass feedstock together with fossil feedstock and transforming them into final fuels. However, this methodology may be also applied in other cases of installations treating bioliquids and fossil oil or in installation co-processing wastes of bio and non-bio origin. The biomass feedstock may for instance be lipid-based material, such as vegetable oil, crude tall oil or pyrolysis oil, and the fossil feedstock typically originates from crude oil. The final fuels produced from such a feedstock mix are usually diesel fuel, jet fuel, heating oil, marine fuel, gasoline, gasoline components and sometimes propane gas, a constituent of Liquefied Petroleum Gas, while minor fractions of other products can also be present. Crucially, such co-processed fuels contain a share of biofuels and biogas. **The case of a production unit that uses biomethane as a feedstock withdrawn from the interconnected infrastructure, which is certified and traced through the mass-balancing system of the interconnected gas infrastructure, is not considered as a type of co-processing in the meaning of this delegated regulation**.

  (2)For the purposes of this delegated regulation, biogas refers to the gas originating from the biomass feedstock, and which is produced from co-processing of that biomass feedstock together with fossil feedstock to convert them into final liquid and gaseous fuels.

  (3)In order to allow for the renewable share of fuels produced in a common process from biomass and fossil feedstock to be counted towards the targets established under Directive (EU) 2018/2001 and effectively contribute towards reducing greenhouse gas emissions in the Union, its Article 28(5) requires the Commission to adopt a delegated act specifying the methodology by which to determine the share of biofuel, and biogas for transport, resulting from biomass being processed with fossil fuels in a common process.

(4) In order to achieve a balance between verification costs and accuracy of tests, the delegated act allows economic operators either to use a common harmonised testing method, based on radiocarbon (^{14}C) testing, or to use their own testing methods, which may be company-specific or process-specific. However, to ensure that a common verification method is applied on the market, economic operators using a method other than the radiocarbon (^{14}C) testing as the main testing method should regularly use radiocarbon (^{14}C) testing of the outputs to verify the correctness of the main testing method used. Furthermore, in order to allow economic operators to get accustomed to the application of the radiocarbon (^{14}C) testing in combination with another testing method as main method, some flexibility about the acceptable percentage of deviation between the results of both main and second verification tests is allowed within the first year of application of this methodology.

- **Commission Delegated Regulation (EU) 2023/1184** of 10 February 2023 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a Union methodology setting out detailed rules for the production of renewable liquid and gaseous transport fuels of non-biological origin published in the EU Official Journal on 20th June 2023
- **Commission Delegated Regulation (EU) 2023/1185 of** 10 February 2023 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a minimum threshold for greenhouse gas emissions savings of recycled carbon fuels and by specifying a methodology for assessing greenhouse gas emissions savings from renewable liquid and gaseous transport fuels of non-biological origin and from recycled carbon fuels published in the EU Official Journal on 20th June 2023
- **Directive (EU) 2023/959** of the European Parliament and of the Council of 10 May 2023 amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union and Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading system published in the EU Official Journal on 16 May 2023
- **Council and Parliament reach provisional deal on renewable energy directive** on 30 March 2023. The provisional agreement strengthens the sustainability

criteria for biomass use for energy, in order to reduce the risk of unsustainable bioenergy production. It applies a cascading principle to make sure biomass is used according to its highest economic and environmental added value.

- **The RED II** implicitly recognises that biomass use is not sustainable by default, and that additional criteria are indispensable to mitigate the risk of unsustainable use of biomass in the EU and accordingly:
  - lays down rules on financial support to enhance the use of renewable energy, such as bioenergy;
  - drives biomass use for energy with sustainability criteria to mitigate the risks of unsustainable biomass use;
  - includes caps on the use of stem wood above a certain size for energy purposes, applying existing agricultural biomass no-go areas for forest biomass;
  - introduces cap on high indirect land use change-risk biofuels;
  - sets out biodiversity risks.

Additional rules are enshrined in the **Commission Implementing Regulation (EU) 2022/996** of 14 June 2022 on rules to verify sustainability and greenhouse gas emissions saving criteria and low indirect land-use change-risk criteria.

- **Commission Implementing Decision (EU) 2022/604** of 8 April 2022 on the recognition of the 'Red Tractor Farm Assurance Crops and Sugar Beet Scheme' voluntary scheme for demonstrating compliance with the requirements set in Directive (EU) 2018/2001 of the European Parliament and of the Council for biofuels, bioliquids, biomass fuels, renewable liquid and gaseous fuels of non-biological origin and recycled carbon fuels.
- **Commission Implementing Decision (EU) 2022/605** of 8 April 2022 on the recognition of the 'REDcert-EU' voluntary scheme for demonstrating compliance with the requirements set in Directive (EU) 2018/2001 of the European Parliament and of the Council for biofuels, bioliquids, biomass fuels, renewable liquid and gaseous fuels of non-biological origin and recycled carbon fuels,
- **Commission Implementing Decision (EU) 2022/603** of 8 April 2022 on the recognition of the 'KZR INiG' scheme for demonstrating compliance with the requirements set in Directive (EU) 2018/2001 of the European Parliament and of

the Council for biofuels, bioliquids, biomass fuels, renewable liquid and gaseous fuels of non-biological origin and recycled carbon fuels,

- **Commission Implementing Decision (EU) 2022/609** of 8 April 2022 on the recognition of the 'SURE' voluntary scheme for demonstrating compliance with the requirements set in Directive (EU) 2018/2001 of the European Parliament and of the Council for biofuels, bioliquids, biomass fuels, renewable liquid and gaseous fuels of non-biological origin and recycled carbon fuels,
- **Commission Implementing Decision (EU) 2022/608** of 8 April 2022 on the recognition of the 'Scottish Quality Crops Farm Assurance Scheme (SQC)' for demonstrating compliance with the requirements set in Directive (EU) 2018/2001 of the European Parliament and of the Council for biofuels, bioliquids, biomass fuels, renewable liquid and gaseous fuels of non-biological origin and recycled carbon fuels,
- **Commission Implementing Decision (EU) 2022/607** of 8 April 2022 on the recognition of the 'Roundtable on Sustainable Biomaterials (RSB) EU RED' voluntary scheme for demonstrating compliance with the requirements set in Directive (EU) 2018/2001 of the European Parliament and of the Council for biofuels, bioliquids, biomass fuels, renewable liquid and gaseous fuels of non-biological origin and recycled carbon fuels,
- **Commission Implementing Decision (EU) 2022/599** of 8 April 2022 on the recognition of the Biomass Biofuels Sustainability voluntary scheme (2BSvs) for demonstrating compliance with the requirements set in Directive (EU) 2018/2001 of the European Parliament and of the Council for biofuels, bioliquids, biomass fuels, renewable liquid and gaseous fuels of non-biological origin and recycled carbon fuels,
- **Commission Implementing Decision (EU) 2022/600** of 8 April 2022 on the recognition of the 'Bonsucro EU' voluntary scheme for demonstrating compliance with the requirements set in Directive (EU) 2018/2001 of the European Parliament and of the Council for biofuels, bioliquids, biomass fuels, renewable liquid and gaseous fuels of non-biological origin and recycled carbon fuels,
- **Commission Implementing Decision (EU) 2022/601** of 8 April 2022 on the recognition of the 'Better Biomass' voluntary scheme for demonstrating compliance with the requirements set in Directive (EU) 2018/2001 of the European Parliament and of the Council for biofuels, bioliquids, biomass fuels, renewable liquid and gaseous fuels of non-biological origin and recycled carbon fuels

- **Commission Implementing Decision (EU) 2022/602** of 8 April 2022 on the recognition of the 'International Sustainability & Carbon Certification – ISCC EU' voluntary scheme for demonstrating compliance with the requirements set in Directive (EU) 2018/2001 of the European Parliament and of the Council for biofuels, bioliquids, biomass fuels, renewable liquid and gaseous fuels of non-biological origin and recycled carbon fuels,
- **Commission Implementing Decision (EU) 2022/**610 of 8 April 2022 on the recognition of the 'Trade Assurance Scheme for Combinable Crops (TASCC)' for demonstrating compliance with the requirements set in Directive (EU) 2018/2001 of the European Parliament and of the Council for biofuels, bioliquids, biomass fuels, renewable liquid and gaseous fuels of non-biological origin and recycled carbon fuels.
- In the same manner as the RED II biomass is defined for monitoring purposes under the EU ETS in Article 3(21) of the **Commission Implementing Regulation (EU) 2018/2066** of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012 (MRR).
- **Commission Implementing Regulation (EU) 2020/2085** align the provisions regarding the emissions from biomass with the rules laid down in Directive (EU) 2018/2001, in particular as regards the relevant definitions and the sustainability and greenhouse gas emission saving criteria for the use of biomass. Following those amendments, the provisions regarding the sustainability and greenhouse gas emissions saving criteria for the use of biomass apply from 1 January 2022. However, on 14 December 2021 the European Commission opened the public feedback period on Commission Implementing Regulation (EU) amending Implementing Regulation (EU) 2018/2066 with the purpose to amend Article 38 of the MRR regarding the timing for applying certain rules on the monitoring and reporting of emissions and in particular the zero-rating of emissions from the combustion of sustainable biomass and on 8 March 2022 **Commission Implementing Regulation (EU) 2022/388 amending Implementing Regulation (EU) 2018/2066** on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council was adopted.

- **Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance** trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757 (COM(2021) 551 final) envisions the amendment to the Annex IV to Directive 2003/87/EC replacing the existing rule: “The emission factor for biomass shall be zero” with the following: “The emission factor for biomass that complies with the sustainability criteria and greenhouse gas emission saving criteria for the use of biomass established by Directive (EU) 2018/2001, with any necessary adjustments for application under this Directive, as set out in the implementing acts referred to in Article 14, shall be zero”.
- **The RED II criteria** are complementary to the safeguards set out by EU climate and environmental legislation, in particular by the Regulation on Land Use, Land Use Change and Forestry 2018/841 (LULUCF). The regulation makes sure that all sectors contribute to the EU's 2030 emission reduction target, including the land use sector. The LULUCF Regulation was adopted in 2013 as a first step towards the inclusion of those activities in the EU emissions-reduction commitment. In 2013 a new EU forest strategy was also adopted by the European Commission to address the use of forests for the purposes, among others, biomass and bioenergy.
- **At global level, REDD+ Programme** aims to address emissions from deforestation and forest degradation and to promote sustainable forest management.
- **Fit for 55 amendments:** Under the Fit for 55 amendments (Communication of 14 July 2021 ('Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality, COM/2021/550 final) the European Commission proposes the following measures:

- to prohibit national financial incentives for using saw or veneer logs, stumps and roots for energy generation;
- to prohibit the sourcing of biomass for energy production from primary forests, peatlands and wetlands;

- to eliminate support for forest biomass in electricity-only installations as of 2026;
- to require all biomass-based heat and power installations to comply with minimum greenhouse gas saving thresholds.

It is noteworthy that the Fit for 55 amendments apply the EU sustainability criteria to smaller heat and power installations (equal or above 5MW). Recital 35 of the RED II reads:
'To ensure higher environmental effectiveness of the Union sustainability and greenhouse emissions saving criteria for solid biomass fuels in installations producing heating, electricity and cooling, the minimum threshold for the applicability of such criteria should be lowered from the current 20 MW to 5 MW".

Forest biomass

- **Directive (EU) 2018/2001** lays down new sustainability criteria for forest biomass used for the production of energy, in order for the latter to be accounted against European targets and national contributions, be part of renewable energy obligations stemming from Articles 23 and 25, and to be eligible for public support.
- **Implementing Regulation (EU) 2022/2448** of 13 December 2022 on establishing operational guidance on the evidence for demonstrating compliance with the sustainability criteria for forest biomass laid down in Article 29 of Directive (EU) 2018/2001 of the European Parliament and of the Council.