EIAR Addendum

Nua Bioenergy, Lisheen

Preface

Prepared for: Nua Bioenergy Limited

March 2025

RECEIVED. OSIO3/2025



Document Control

| Document: | | EIAR Addendum | EIAR Addendum - Preface | | | |
|----------------|--------------------------|---------------|-------------------------------|----|--|--|
| Project: | Project: | | Nua Bioenergy, Lisheen | | | |
| Client: | | Nua Bioenergy | Nua Bioenergy | | | |
| Project Refere | Project Reference: | | P-2024-35-59 | | | |
| | | | | | | |
| Document Iss | Document Issue and Check | | | | | |
| Issue | Date | Status | Status Issued to: Checked by: | | | |
| P_01_R1 | 21.02.2025 | Draft Issue | DM | SD | | |
| P_01_R2 | 05.03.2025 | Final Issue | DM | SD | | |
| | | | | | | |
| | | | | | | |

Preface



Purpose of the document

This Environmental Impact Assessment Report (EIAR) Addendum has been prepared by Purser on behalf of Nua Bioenergy (the Applicant) in support of a planning application (Tipperary County Council Application Reg. Ref. 2460936). The application seeks permission for the construction of a biomethane and bio-based fertiliser production facility, with an annual intake of up to 98,000 tonnes of feedstock per annum at a site of c. 5.5 hectares at lands located at the former Lisheen Mine Site, Killoran, Moyne, Thurles, Co. Tipperary(hereafter referred to as the proposed development).

On 3 January 2025, Tipperary Council issued a Request for Further Information (RFI) in relation to Planning Application Reg. Ref. 2460936. The RFI requires the Applicant to provide additional information and clarifications on specific aspects of the EIAR, ensuring that all relevant environmental considerations are fully addressed.

In accordance with standard practice, this EIAR Addendum has been prepared to comprehensively respond to the RFI. It provides supplementary information, clarifications, and updates to relevant EIAR chapters, ensuring that the environmental assessment remains robust, transparent, and fully compliant with all regulatory requirements and guidelines.

Scope

This EIAR Addendum has been prepared to provide updates and clarifications to the Environmental Impact Assessment Report (EIAR) submitted as part of Planning Application Reg. Ref. 2460936 in November 2024.

The Addendum presents any changes to the original EIAR as a result of the additional information being provided in response to the Request for Further Information (RFI) issued by Tipperary Council on 3 January 2025.

Updated and Revised Documents in Response to the RFI

As part of the RFI response, the following documents have been updated and revised. These revised versions now **supersede** the versions originally referenced in the EIAR submitted with the planning application:

- Construction Management Plan (Ref: 2429-DOB-XX-SI-RP-C-0003), dated February 2025
- **AA Screening and Natura Impact Statement** (Updated version prepared in response to RFI Application Reg. Ref. 24/60936), dated 28 February 2025
- COMAH Land Use Planning Assessment of Anaerobic Digester Plant (Ref: 247501.0417RR01a), dated 8 January 2025

Wherever the original EIAR refers to **the earlier versions** of these documents (i.e., those submitted with the planning application in November 2024), **the reader must instead refer to the updated and revised versions listed above**, which have been submitted as part of the RFI response.

For ease of reference, the table below sets out the original documents submitted with the application alongside the corresponding revised versions, which should now be consulted in their place.

| Planning Application Version | RFI Version |
|--|---|
| Construction Management Plan (Ref: 2429-DOB-XX- | Construction Management Plan (Ref: 2429-DOB-XX- |
| SI-RP-C-0003) dated October 2024 | SI-RP-C-0003) dated February 2025 |
| AA Screening and Natura Impact Statement dated October 2024 | AA Screening and Natura Impact Statement [Updated Version prepared in Response to Request for Further Information – Application Reg. Ref. 24/60936) dated 28 February 2025 |
| COMAH Land Use Planning Assessment of Anaerobic | COMAH Land Use Planning Assessment of Anaerobic |
| Digester Plant 247501.0417RR01dated 25 October | Digester Plant (Ref: 247501.0417RR01a) dated 08 |
| 2024 | January 2025 |

Structure of the EIAR Addendum

This EIAR Addendum has been compiled on behalf of the Applicant by a multi-disciplinary consultancy team of competent experts led by Purser with input from specialist sub-consultants. All technical leads are qualified and competent experts in their fields in accordance with Article 5(3) of the EIA Directive because of their academic qualifications, professional affiliations, and professional experience on other EIARs for major infrastructure projects.

Full details of the competent experts are compiled within **Volume 3 Appendix 1.1 Competent Experts**. This appendix formed part of the original EIAR submitted in November 2024 as part of the Planning Application (Reg. Ref. 2460936).

The EIAR Addendum will provide a review and update to the relevant chapters where additional information and/or clarification is required. The Addendum will be set out across three volumes as per the original EIAR submitted in November 2024.

- Volume 1 Non Technical Summary
- Volume 2 EIAR
- Volume 3 Appendices

Numbering of the RFI Items To ensure clarity, consistency, and ease of reference, this Addendum adopts a revised numbering system for the DEL items The gridinal DEL decomposition and the provide a system for the RFI items. The original RFI document, issued on 3 January 2025 by Tipperary County Council, contains multiple instances of the same numbering (e.g. multiple instances of No. 1), which could lead to ambiguity in referencing specific items. Therefore, Purser has assigned a unique reference number to each RFI item. This approach ensures that all responses are logically structured, transparent, and easily navigable for the planning authority, consultees, and other stakeholders.

Table A below sets out the revised RFI reference numbers, aligning each original RFI reference with its corresponding Purser RFI reference, facilitating a clear and structured response.

| Purser RFI Reference | RFI Reference | Details |
|----------------------|---------------|--|
| RFI Item 1 | ltem 1 | The applicant is requested to submit, for the |
| | | consideration of the Planning Authority, further |
| | | information to address the following points (the |
| | | references below relate to the information contained in |
| | | the LAND USE PLANNING ASSESSMENT report |
| | | prepared by AWN Consulting and received by the |
| | | Planning Authority on 05/11/2024). |
| RFI Item 1 (a) | Item 1 (a) | It is unclear how the jet fire has been modelled in 6.3.3. |
| | | The jet fire consequences in Figure 9 (and other figures |
| | | in this subsection) look to be significantly |
| | | underestimated. It is noted that Table 14 quotes a pipe |
| | | inflow rate of 1013 kg/hr (0.3 kg/s), whereas it would be |
| | | expected such a rupture fed from a reservoir at 250 barg |
| | | to have a release rate of ~20 kg/s. Please provide further |
| DELitere 1 (b) | ltore 1 (b) | information on the modelling inputs. |
| RFI Item 1 (b) | Item 1 (b) | Similar to Item (a) above the flash fire consequences also appear to be underestimated, please provide |
| | | further information on the modelling inputs. |
| RFI Item 1(c) | Item 1 (c) | The applicant is requested to provide an explanation for |
| | | the annotation "Pipeline rupture". At Section 9.1.3 |
| | | Figure 23. |
| RFI Item 1 (d) | Item 1 (d) | In relation to Section 10.1, the applicant is requested to |
| | | clarify how far along the 100m pipeline has the release |
| | | been modelled (this is not clear from Table 25), further |
| | | information is required. |
| RFI Item 1 (e) | ltem (e) | In relation to Section 10.1, pipeline pressure is quoted |
| | | as 1.01 bar in Table 25 – please clarify whether this is 10 |
| | | millibar gauge and confirm what has been used in |
| | | modelling, noting that the pipeline diameter of 50mm |

| Purser RFI Reference | RFI Reference | Details Seems low for such low pressure pipework. The applicant is requested to confirm that the 50mm pipeline diameter is correct. |
|----------------------|---------------|--|
| RFI Item 1 (f) | Item (f) | In relation to Section 11.2, Table 29. The applicant is advised that the conditional probabilities for flash fire and VCE are 36% and 54% in TLUPG Table 67, but these probabilities are reversed in Table 29 of the assessment report, please clarify. |
| RFI Item 1 (g) | ltem (g) | It is considered that the overall assessment is unclear as to whether there is potential for a major accident to the environment. The applicant is requested to submit a clear, detailed assessment providing clarity in this regard. |
| RFI Item 1 (h) | Item (h) | It is unclear how the volume of flammable gas within each of the digesters, as provided in the report, have been calculated. The applicant is requested to provide the following information used in the calculations, a)The free height (height above the liquid) in cylinder body of the digester(m). b) Radius of digester cylinder (m). c) Dome type (ellipse or hemispheric). d) Dome height (m). e) Storage temperature T (°C). f) Storage pressure P (Pa). g) Maximum percentage methane |
| RFI Item 2 | Item 2 | Noting that the proposed development will be classified as a COMAH establishment and will be subject to the provisions of the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, S.I. No. 209 of 2015 the applicant is requested to set out the anticipated implications of the development on adjoining/ nearby land uses. In this regard the impact of the proposal on the development potential of the adjoining former Lisheen Mine lands to be set out noting the strategic designation of the lands as a National Bioeconomy Campus. The details provided in response to this request should provide clear details of land uses that can / cannot take place in the vicinity of the development and the consent |

| | | Details |
|-----------------------|-------------------------|---|
| | | THE A |
| | | |
| Purser RFI Reference | RFI Reference | Details |
| | | implications for future development arising from the |
| | | proposed development. The geographical impact of the |
| | | development on adjoining lands should be outlined to |
| | | illustrate the foregoing. |
| | | While the implications of the proposed development on |
| | | the National Bioeconomy Campus is of concern the |
| | | assessment should cover all lands adjoining/near to the |
| | | site that will be impacted on by the development. This |
| DEL Itaria O | ltarra O | consideration is also relevant for the EIAR. |
| RFI Item 3 | Item 3 | The Flood Risk Assessment considers the risks of |
| | | surface water discharge from the site leading to downstream flooding as low. In this regard the surface |
| | | water management measures show surface waters will |
| | | be attenuated in an on-site lagoon with the release rate |
| | | to the Cooleeny Stream limited to 34.05 Litres /second. |
| | | It is not clear what calculations have been undertaken |
| | | to support this consideration. Further information in |
| | | this regard is required. |
| RFI Item 4 | ltem 4 | The Construction Management Plan (CMP) document |
| | | contain some anomalies that do not appear relevant to |
| | | the proposed development (e.g. references to asbestos |
| | | removal and demolition contained under Section |
| | | 4.5.2.2). The site compound location identified in the |
| | | CMP is not consistent with that identified in the NIS. The |
| | | applicant is invited to revise the CMP to address the |
| | | foregoing matters. |
| RFI Item 5 | Item 5 | In order to clarify the terms of any permission, the |
| | | applicant is requested to confirm the proposed duration |
| | | of the planning permission, noting the standard |
| It is further recommo | ndod that pursuant to S | duration for planning permission is 5 years. |
| | | ection 172 (1D and 1E) of the Planning and Development Act mation be requested in relation to the EIAR; |
| RFI Item 6 | Item 1 | Notwithstanding the intermittent references to |
| | | decommissioning throughout the Environmental |
| | | Impact Assessment Report (EIAR), it is noted that no |
| | | proposals have been submitted for this phase. The |
| | | applicant is requested to confirm the intended |
| | | operational lifespan of the development and to address |
| | | the requirement for proposals for decommissioning as |
| | | appropriate. |

| | | P.C. |
|----------------------|---------------|--|
| | | Details |
| Purser RFI Reference | RFI Reference | Details In the event that a decommissioning phase is to be included, the applicant is requested to update all sections of the EIAR and appropriate supporting documentation to take account of this phase. |
| RFI Item 7 | Item 2 | The applicant is requested to arrange to submit, for the consideration of the Planning Authority, a revised EIAR and supporting documentation that address the following matters. Revisions or updates to the EIAR can be provided by way of an EIAR Addendum: |
| RFI Item 7 (i) | Item 2 (i) | (i) Chapter 3 of the EIAR references the nearest residence as 750 metres to the west. This appears an error, is not consistent with the information shown on the Site Separation Distances drawing and requires clarification. |
| RFI Item 7 (ii) | Item 2 (ii) | (ii) Section 8.4. of the EIAR notes the there are no watercourses within the proposed development site. The Cooleeny Stream is located approximately 20 metres south of the site. The site intersects with the Cooleney Stream and the proposal includes a surface water drain and headwall adjoining/intersection with the stream. Figure 8.4 of the EIAR illustrates a site boundary which is not consistent with the application site boundary. The EIAR shall be updated to include for reference to the correct site area and to account for impacts associated with the development of the surface water drainage infrastructure and outfall on the ecology / biodiversity of the Cooleeny stream. |
| RFI Item 7 (iii) | Item 2 (iii) | (iii) Section 8.2.3 of the EIAR makes reference to the "linear nature of the onshore infrastructure". Clarification is sought on what this statement refers to. |
| RFI Item 7 (iv) | Item 2 (iv) | (iv) The EIAR under Section 10.6.1.2 contains the following statement: Where dewatering of excavations is required or where water must be pumped from the excavations, water will be discharged by the contractor, following appropriate treatment (e.g., settlement or hydrocarbon interceptor), to sewer, watercourses or groundwater in accordance with the necessary discharge licences issued by UE under Section 16 of the Local Government (Water |

| Purser RFI Reference | RFI Reference | Details |
|----------------------|----------------------|---|
| | | Pollution) Acts and Regulations for any water discharges to sewer or from Kildare County Courcil under Section 4 of the Local Government (Water Pollution) Act 1977, as amended in 1990 for discharges to surface water / groundwater. Clarification is sought on the relevance of the foregoing to the proposed project. If not relevant it should be omitted from the EIAR. |
| RFI Item 7 (v) | Item 2 (v) | (v) It is noted that the facility will be subject to IE Licence from the EPA that will include for a range of monitoring requirements for emissions. Clarification is sought on the nature and extent of monitoring that the development will be subject to under IE Licence, with the EIAR updated to account for same. Where assumptions are made in this regard same should be clearly outlined. |
| RFI Item 7 (vi) | Item 2 (vi) | (vi) The EIAR cites the undertaking of measures in accordance with a Construction Management Plan (CMP) as a mitigation measure. While the mitigation measures in the CMP are noted the full range of mitigation measures must be contained in the EIAR and any supporting document must be consistent with same. The Planning Authority note the CMP references demolition and asbestos removal which are not features of the development and the references to the construction compound location contained in the CMP is at variance with the compound location identified in the NIS. Consistency is required across all primary and supporting documents and the documents to be revised to address this. |
| RFI Item 7 (vii) | Item 2 (vii) | (vii) In addition, the EIAR contains discrepancies between the mitigation measures outlined in Chapter 22 and the various chapters of the main EIAR |
| RFI Item 7 (viii) | Item 2 (viii) | (viii) The EIAR does not assess the impact of the development on land and land use in the context of the development being a 'Lower Tier' COMAH |

| | | Details |
|----------------------|---------------|--|
| Purser RFI Reference | RFI Reference | Details |
| | | establishment. The EIAR to be updated to address this matter. In light of the requirement for the information required above, the applicant is requested to update all relevant sections of the EIAR as appropriate. As stated, revisions or updates to the EIAR can be provided by way of an EIAR Addendum. |
| RFI Item 8 | Item 3 | The Planning Authority note the measures contained in Chapter 17 of the EIAR to mitigate impacts on archaeology. Given the high potential for archaeology in the area and the lack of previous archaeological investigations within part of the site the measures proposed are considered pre-emptive. The application is therefore requested to submit for the Planning Authority, an Archaeological Impact Assessment. The report should consider and fully address items a to g hereunder; a) The applicant is required to engage the services of a suitably qualified Archaeologist to carry out an Archaeological Impact Assessment (AIA) which should include a programme of Archaeological Geophysical Survey and Archaeological Test Excavation. No sub- surface work shall be undertaken in the absence of the archaeologist without his/her express consent. b) The archaeologist shall inspect the proposed development site (PDS) and detail the historical and archaeological background of the site (consulting appropriate documentary sources), and review all cartographic sources and aerial photographs for the area. c) The Archaeological Geophysical Survey must be carried out under licence from the National Monuments Service and in accordance with an approved method statement; note a period of 2-3 weeks should be allowed to facilitate processing and approval of the licence application and method statement. d) The Archaeological Test Excavation must be carried out under licence from the National Monuments Service and in accordance with an approved method statement; note a period of 2-3 weeks should be |

| | | Details |
|-------------------------|-------------------------|---|
| Purser RFI Reference | RFI Reference | Details |
| Purser RFI Reference | RFI Reference | Details allowed to facilitate processing and approval to the licence application and method statement. e) Test trenches shall be excavated at locations chosen by the archaeologist having consulted the site drawings and the results of the Archaeological Geophysical Survey. Excavation is to take place to the uppermost archaeological horizons only, where they survive. Where archaeological material is shown to be present, the archaeological material is shown to be present, the archaeological surfaces within the test trenches are to be hand cleaned and clearly visible for photographic purposes. f) Having completed the work, the archaeologist shall submit a written report to The Department and the Local Authority describing the findings of the AlA including the results of the geophysical survey and test excavations. The report shall comment on the degree to which the extent, location and levels of all proposed foundations, service trenches and other sub-surface works required for the development will affect the archaeological remains. This should be illustrated with appropriate plans, sections, etc. g) Where archaeological material is shown to be present, further mitigation measures will be required; these may include refusal, redesign to allow for preservation in situ, excavation and/or monitoring as deemed appropriate. The Department will advise the Local Authority with regard to these matters. No decision should be made on this application until the Department and the Local Authority have had the opportunity to fully evaluate the findings of the AlA. h) The applicant is requested to submit a revised EIAR and Chapter 17 to include for the results and mitigation measures following the completion of the Archaeological Impacts Assessment. This can take the form of an EIAR Addendum. |
| It is further recommend | led that pursuant to Se | ection 177T of the Planning and Development Act 2000, as |

It is further recommended that pursuant to Section 177T of the Planning and Development Act 2000, as amended, and Article 243 of the Planning and Development Regulations 2001, as amended, to seek the following further information regarding the Natura Impact Statement (NIS):

| | | Details |
|---------------------|-----------------|---|
| Purser RFI Referenc | e RFI Reference | Details |
| RFI Item 9 | ltem 1 | The NIS contains references to decommissioning (e.g. Sections 9) It is noted that no proposals have been submitted for this phase and it appears that such a phase may not be contemplated. The applicant is requested to confirm the intended operational lifespan of the development and to address the requirement in the NIS for proposals for decommissioning as appropriate. |
| RFI Item 10 | Item 2 | Section 5.5.1 of the NIS states that the Cooleeny Stream is not within the red line boundary but only c. 20 metres away from the southern boundary. The site extents illustrated under Figures 12.1 to 12.3 in the NIS are not consistent with the site extents shown on the planning application drawings. The application site extends to and intersects with the Cooleeny stream to facilitate the development of surface water infrastructure. In this regard the NIS shall be updated to include for reference to the correct site area and to account for impacts associated with the development of the surface water drainage infrastructure and outfall. |
| RFI Item 11 | Item 3 | The mitigation measures under Section 6.1 proposes that an ecological exclusion zone between the site and Cooleeny stream is implemented with bunding and silt fencing installed. It is unclear how this measure will be implemented on the ground noting the proposals include for a new surface water drain and headwall at the Cooleeny stream. The NIS should be revised to include specific narrative on this matter. |
| RFI Item 12 | Item 4 | The mitigation measures outlined in the NIS reference bank protection and bank build up. It is not clear what works are envisaged in this regard. Further information is sought on this matter. |
| RFI Item 13 | Item 5 | Section 6.2.4 of the NIS refers to a drainage system (Moyne), it is not clear what is referred to in this regard. |
| RFI Item 14 | Item 6 | Section 6.2.3 refers to the site compound location. This location appears to differ from the compound location identified in the CMP. This matter requires clarification. |

Table: A: Revised RFI Item Reference Numbering