

# **Carbon Neutrality Transboundary Statement**

## **Dalradian Gold Ltd**

PAC Ref: C005

Planning Application Ref: LA10/2017/1249/F

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**Client**  
Dalradian Gold Ltd  
**Our reference**  
DALB3001

1<sup>st</sup> December 2025

# 1. Introduction & Background

## Introduction

- 1.1 This Carbon Neutrality Transboundary Statement (TBS) responds to the information contained within the Transboundary Representations (TBRs) in relation to the proposed Mine development (Planning Application Ref: LA10/2017/1249/F, PAC Ref C005). It has been jointly prepared by [REDACTED] (Senior Director, Sustainability and ESG) and [REDACTED] (Director, Climate, Sustainability and ESG).
- 1.2 The TBRs which raise issues in respect of climate change mitigation or GHG are listed below for ease of reference:
  - 1.2.1 Friends of the Earth Northern Ireland
  - 1.2.2 Friends of the Earth Ireland
  - 1.2.3 An Taisce (The National Trust for Ireland) which references the Rebuttal Submissions made by Friends of the Earth (FoE) England, Wales and Northern Ireland.
  - 1.2.4 Environmental Justice Network Ireland
  - 1.2.5 Donegal County Council
  - 1.2.6 Zero Waste Alliance Ireland
  - 1.2.7 Environmental Law and Justice research Group
  - 1.2.8 Ecojustice Ireland
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  - 1.2.12 Objection Sample letter 1
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  - 1.2.14 Colm Garvey (third party)
  - 1.2.15 Emily McFarland (third party)
  - 1.2.16 Florence Whitworth (third party)
  - 1.2.17 Marella Fyffe (third party)
  - 1.2.18 Meath Resident

- 1.2.19 Patricia Sharkey (third party)
  - 1.2.20 Progressive Politics Northern Ireland
  - 1.2.21 Christopher O’Connell
  - 1.2.22 Amy Strecker (third party)
  - 1.2.23 Patrick Haughey (third party)
- 1.3 In order to respond accurately to these TBRs, and in the interests of transparency and to facilitate early consideration, it has been necessary to update the greenhouse gas (GHG) assessment previously submitted with the Carbon Neutrality Technical Report and Rebuttal Statement. This reflects changes to standards, guidance and the market, without which the TBS would be inaccurate. Where relevant, documents already submitted to the Inquiry are referenced.

### **Report Structure**

- 1.4 This TBS is structured as follows:
- 1.4.1 **Section 2:** Summary of the updated GHG assessment, including comparison with the original GHG assessment results, explanation of the reasons for changes in reported emissions, and analysis of updated GHG assessment results in terms of implications to Northern Ireland carbon budgets to address representations from Friends of the Earth and An Taisce that the project fails to comply with the Climate Change Act (NI) 2022 (CCANI).
  - 1.4.2 **Section 3:** A response to the TBRs and issues raised from third parties which cover a range of technical and other issues
  - 1.4.3 **Section 4:** Conclusions
  - 1.4.4 **Appendix 1** – Curraghinalt Peatland Carbon Emissions Assessment (SLR)
  - 1.4.5 **Appendix 2** – Updated GHG Assessment
  - 1.4.6 **Appendix 3** – Draft Carbon Neutrality Management Plan
- 1.5 The issue of carbon neutrality and GHG emissions relates closely to other technical areas (such as peat and EIA Regulations compliance). Where necessary, these TBSs are cross-referenced throughout this document.

## 2. Updated Greenhouse Gas Assessment

- 2.1 In order to respond to transboundary representations and the issues raised, it is necessary first to have regard to developments which have necessitated a revision to the GHG assessment. These developments can be summarised as follows:
- 2.1.1 The on-going iterative review of GHG emission sources and emission factors;
  - 2.1.2 Confirmation of additional mitigation measures (which the Applicant has previously identified as under consideration), to reduce GHG emissions at source, further reducing reliance on carbon offsets to address residual emissions for carbon neutrality.
- 2.2 The A5 judgment is also relevant, albeit the Applicant is aware that an appeal against the judgment is due to be heard before the Inquiry resumes. A response on this judgement is presented in the legal submissions.

### Updated GHG Assessment

- 2.1 The TBRs from Friends of the Earth and An Taisce in particular assert that there is non-compliance with the CCANI. That is not accepted, and moreover there are developments that inform that criticism. The GHG assessment has been revisited and takes account of the following that have occurred following submission of the Carbon Neutrality RS in October 2024:
- 2.1.1 Updated activity data including site fuel consumption and third party haulage;
  - 2.1.2 The inclusion of additional mitigation measures to which the Applicant is now able to commit in light of improved market supply and confidence<sup>1</sup>, including the use of biodiesel hydrotreated vegetable oil (HVO) for site fuel, and a cement specification with reduced carbon content (CEM III/B at 70% Ground Granulated Blast-furnace Slag, GGBS);
  - 2.1.3 The inclusion of previously excluded emissions sources such as explosives use and product refining for which emissions data is now available;
  - 2.1.4 Further interrogation of the peat emissions has been carried out to inform the assessment and in particular the Northern Ireland specific emissions by Dr [REDACTED] of SLR regarding emissions from on-site peat (**Appendix 1**), and how these emissions are forecast to change as a result of the construction and operation of the Proposed Development, including proposed peat management and restoration works;
  - 2.1.5 Application of updated GHG emissions factors published by UK Government (relating to the year 2025) and the United States Environmental Protection Agency (relating to the year 2022);

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<sup>1</sup> Paragraph 9.26 of the Carbon Neutrality Technical Report states that the Applicant will continue to review the availability of HVO in the market as an alternative to diesel fuel.

- 2.1.6 Application of the latest UK Government Transport Analysis Guidance (TAG) methodology to account for future road transport decarbonisation policy including increased fuel efficiency and electric vehicle (EV) uptake within the car fleet - <https://www.gov.uk/government/publications/tag-data-book>; and
- 2.1.7 An analysis of the location of forecast GHG emissions in terms of which would occur within Northern Ireland and hence be relevant to Northern Ireland carbon budgets and the CCANI, taking account of the other updates set out above.
- 2.2 **Table 1** reports updated GHG assessment results by emissions Scope alongside those of the original GHG assessment submitted as part of the Carbon Neutrality RS, and identifies those emissions that are forecast to occur in Northern Ireland and hence relevant to Northern Ireland carbon budgets and CCANI. A breakdown of the updated GHG assessment results by emissions sources and associated commentary is provided in **Appendix 2**.
- 2.3 In order to track UK-wide progress towards international and domestic targets, the UK's GHG emissions are reported based upon territorial emissions (i.e. emissions that occur within UK borders). These figures are published annually by the Department for Energy Security and Net Zero (DESNZ) and produced in line with international guidance from the Intergovernmental Panel on Climate Change (IPCC); they are then reported to the United Nations Framework Convention on Climate Change (UNFCCC).
- 2.4 The Greenhouse Gas Inventories for England, Scotland, Wales & Northern Ireland (known as the Devolved Administration GHG Inventories) are direct subsets of the UK's territorial emissions dataset. In order to ensure alignment with Northern Ireland's emission targets (CCANI), the appraisal of project GHG emissions forecast to occur within Northern Ireland presented has applied the same methodology: <https://www.ons.gov.uk/economy/environmentalaccounts/methodologies/measuringukgreenhousegasemissions><sup>2</sup>.

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<sup>2</sup><https://www.ons.gov.uk/economy/environmentalaccounts/methodologies/measuringukgreenhousegasemissions>

**Table 1 Updated GHG Emissions Forecast by Scope, Updated Emissions Forecast in Northern Ireland, and Original GHG Forecast**

| Scope                                                                                                                                                                                                                                             | Emissions Sources                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | GHG Emissions (tCO <sub>2</sub> e) |                          |                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------|------------------------------|
|                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Updated Forecast (Total)           | Updated Forecast (in NI) | Original Forecast            |
| 1                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>• Peat</li> <li>• Biodiesel HVO</li> <li>• Explosives use</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 13,720                             | 13,720                   | 168,654                      |
| 2                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>• Generation of consumed grid electricity (market-based)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0                                  | 0                        | 952                          |
| 3                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>• Biodiesel HVO well to tank</li> <li>• Electricity transmission &amp; distribution losses</li> <li>• Manufacturing (surface infrastructure, explosives, cement, steel, oil &amp; lubricants, ventilation equipment, reagents: lime, reagents: other)</li> <li>• Water supply</li> <li>• Mine waste management</li> <li>• Other waste management</li> <li>• Transport: car</li> <li>• Inbound shipping (surface infrastructure except buildings, explosives, cement, steel, oil &amp; lubricants, ventilation equipment, reagents: lime, reagents: other)</li> <li>• Product outbound shipping</li> <li>• Product refining</li> <li>• Powerline construction</li> </ul> | 291,494                            | 18,540                   | 470,434                      |
| <b>TOTAL EMISSIONS (SCOPE 2 MARKET-BASED)</b>                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>305,214</b>                     | <b>32,261</b>            | <b>640,040<sup>(1)</sup></b> |
| <sup>(1)</sup> From Carbon Neutrality Rebuttal Statement Table 1, representing the original GHG assessment, the less extensive committed mitigation measures at that time, FODC's worst-case peat emissions assumption and powerline construction |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                    |                          |                              |

2.5 In summary, total GHG emissions of 305,214 tCO<sub>2</sub>e are forecast across the project's construction, operation and closure stages, of which 32,261 tCO<sub>2</sub>e (11%) are forecast to occur within Northern Ireland and hence be relevant to the CCANI and Northern Ireland carbon budgets.

2.6 For context, the recent A5 judgement identified that the emissions from the construction and operation of that project were estimated at 913,100<sup>3</sup> tCO<sub>2</sub>e which is c28 times greater than the NI emissions from the mine.

<sup>3</sup> [2025] NIKB 42 at [51]

- 2.7 Of the 32,261 tCO<sub>2</sub>e forecast to occur within Northern Ireland, 22,376 tCO<sub>2</sub>e occur during future periods for which Northern Ireland carbon budgets have been set or proposed, as shown in **Table 2**.

**Table 2 Updated GHG Emissions Forecast to Occur in Northern Ireland and Northern Ireland and UK Carbon Budgets**

| NI Carbon Budget                       | Budgeted Emissions (tCO <sub>2</sub> e) | Forecast Project Emissions in NI (tCO <sub>2</sub> e) | Forecast Project Emissions in NI as % of NI Carbon Budgets | Forecast Project Emissions in NI as % of UK Carbon Budgets |
|----------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|
| 2023-2027                              | 89,218,044                              | 2,895                                                 | 0.016%                                                     | 0.001%                                                     |
| 2028-2032                              | 69,243,855                              | 8,573                                                 | 0.012%                                                     | <0.001%                                                    |
| Interim 2030                           | 13,848,771                              | 1,426                                                 | 0.010%                                                     | --                                                         |
| 2033-2037                              | 50,601,279                              | 5,821                                                 | 0.012%                                                     | 0.001%                                                     |
| 2038-2042                              | 30,627,090                              | 5,086                                                 | 0.017%                                                     | 0.001% <sup>(2)</sup>                                      |
| Interim 2040                           | 6,125,418                               | 985                                                   | 0.016%                                                     | --                                                         |
| <b>Total (2027-2042)<sup>(1)</sup></b> | <b>168,315,832</b>                      | <b>22,376</b>                                         | <b>0.013%</b>                                              | <b>0.001%</b>                                              |

<sup>(1)</sup> Based on 17,843,609 tCO<sub>2</sub>e emissions budgeted for 2027

<sup>(2)</sup> The UK's Seventh Carbon Budget is not yet confirmed

- 2.8 Project GHG emissions of 22,376 tCO<sub>2</sub>e that are forecast to occur within Northern Ireland during carbon budget periods (2027 to 2042) equate to a maximum 0.017% of these budgets (for the period 2038-2042), prior to further GHG reductions, removals and offsetting for carbon neutrality.
- 2.9 It should be noted that the contribution of the project to Northern Ireland carbon budgets reported in the Carbon Neutrality Rebuttal Report (0.239%) is based on total GHG emissions from the original GHG forecast irrespective of their location. The disaggregation of emissions forecast to occur in Northern Ireland reported above allows a more accurate assessment, however a reasonable worst case approach is still applied to Scope 3 emissions given these are mostly forecast using current emissions factors and hence take no account of future decarbonisation.
- 2.10 Regarding UK carbon budgets, the project comprises a maximum 0.001%.
- 2.11 Section 6.3 of the IEMA guidance<sup>4</sup> advises that an indicative threshold of 5% of the UK or devolved administration carbon budget in the applicable time period is set at which the magnitude of GHG emissions irrespective of any reductions is likely to be significant.
- 2.12 To illustrate the insignificant nature of these emissions, it is calculated that three-hundred and two (302) Curraghinalt projects would be necessary to exceed the 5% GHG significance threshold regarding a devolved administration's (i.e. Northern Ireland's) carbon budget for the period 2038-2042. This clearly demonstrates the low carbon nature of the proposals prior to further GHG reductions, removals and offsetting for carbon neutrality. Forecast project emissions in Northern Ireland between 2027 and

<sup>4</sup> [2022 iema\\_greenhouse\\_gas\\_guidance\\_eia.pdf](#)

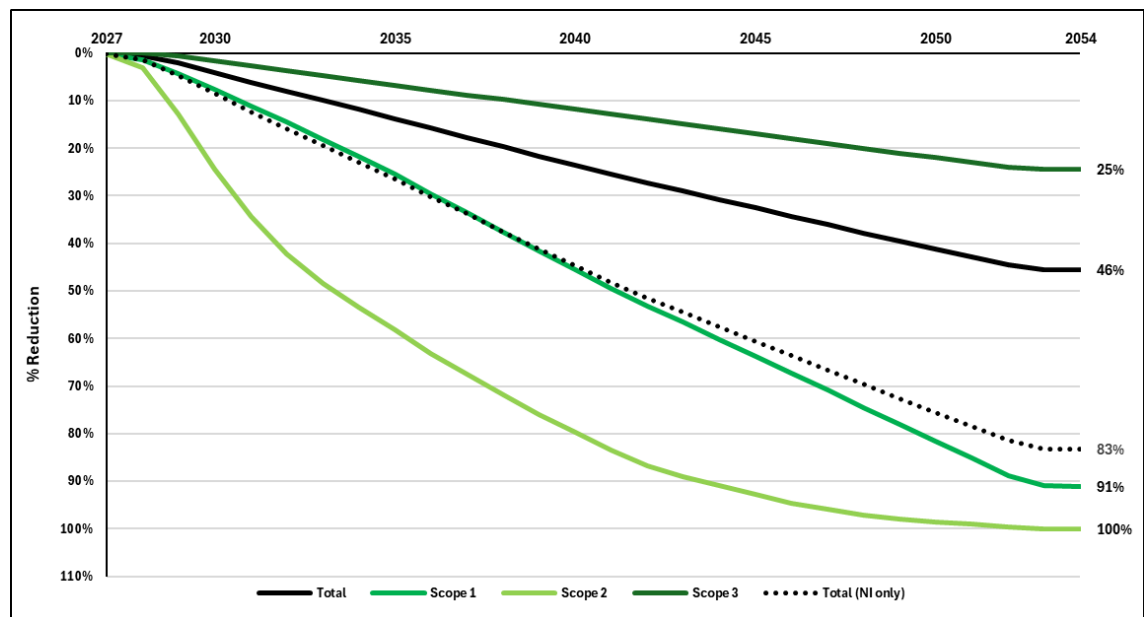


2042 equate to only 0.013% of overall Northern Ireland carbon budgets across the period, again prior to further GHG reductions, removals and offsetting. On this basis it is reasonable to conclude that the emissions from the mine do not prevent the government from achieving its carbon budgets under the CCANI.

2.13 Guidance in Section 6.3 also advises that a project's GHG impact can shift from significant adverse to non-significant effect by incorporating measures which substantially improve upon 'business as usual' performance and meet or exceed the science-based emissions trajectory of ongoing but declining emissions towards net zero.

2.14 **Figure 1** presents cumulative GHG reductions achieved by emissions scope from the committed GHG reduction measures (i.e. biodiesel HVO, 100% renewable power and reduced carbon cement, see **Table 4** below) relative to lifecycle 'business as usual' emissions. It excludes additional GHG reduction and removal measures as well as the offsetting of remaining emissions.

**Figure 1: Cumulative % GHG Reductions by Scope Relative to Total Lifecycle 'Business As Usual' Emissions**



2.15 **Figure 1** demonstrates the substantial decarbonisation that has already been achieved for the project below 'business as usual' through committed GHG reduction Scope 1 and 2 emissions are reduced by 91% and 100% respectively through committed GHG reductions alone (see **Table 4**).

2.16 Scope 3 emissions have also been reduced by 25% to date through the committed use of biodiesel HVO and reduced carbon cement specification. Committed mitigation measures together reduce total lifecycle emissions by 46%. Total Scope 1, 2 and 3 emissions forecast within Northern Ireland are reduced by 83% through committed mitigation alone.

2.17 The need to further reduce and/or remove remaining Scope 1 and Scope 3 emissions where possible is recognised. Further reductions in emissions will be achieved through

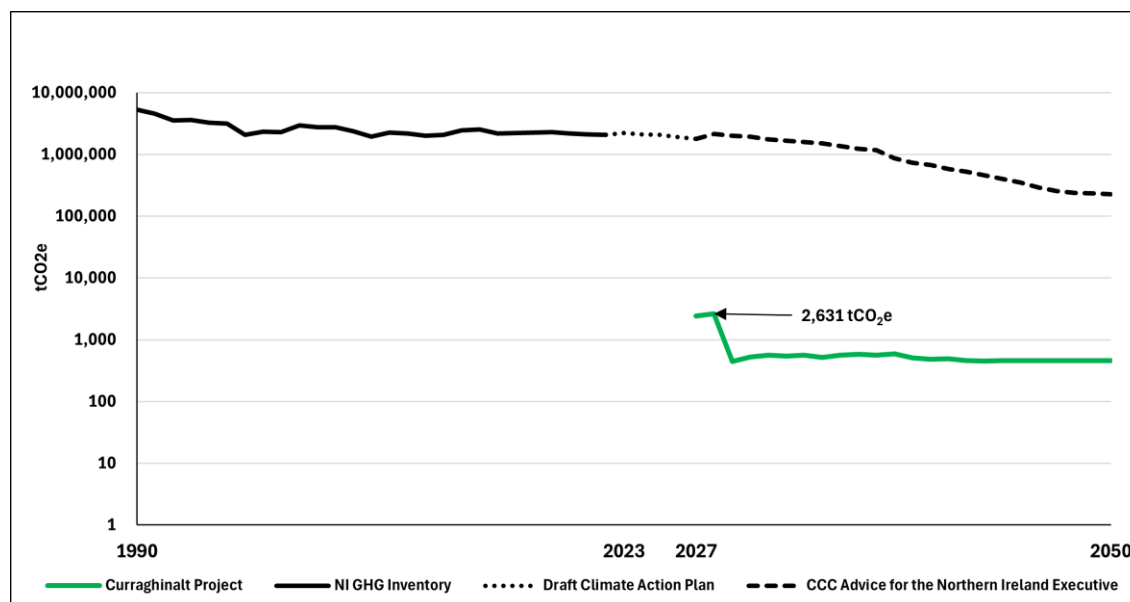
compliance with the Carbon Neutrality Management Plan (“CNMP”), as explained further below. Initiatives such as tree planting on land owned or controlled by Dalradian would potentially fully mitigate Scope 1 emissions (i.e. reducing net Scope 1 emissions below zero) by 2050.

- 2.18 Reductions in Scope 3 (supply chain) emissions will be most reasonably and effectively achieved following the granting of planning permission as part of Dalradian’s low carbon procurement strategy. As a result, together with the use of current emissions factors for the majority of forecast Scope 3 emissions and the exclusion of further GHG reductions, removals and offsetting, the more conservative decarbonisation rate suggested in **Figure 1** for Scope 3 emissions (relative to Scopes 1 and 2) is by necessity worse-case and conservative.
- 2.19 **Figure 1** nevertheless demonstrates a substantial reduction in project emissions below ‘business as usual’, particularly for Scope 1 and 2 emissions over which Dalradian has primary control at this pre-planning stage.
- 2.20 The commitment to ISO14068 and associated GHG reductions and removals, including those set out in **Table 3** and numerous additional measures under consideration (see draft Carbon Neutrality Management Plan, Appendix 3), will ensure the project’s GHG impacts are rigorously assessed, reduced and removed through a range of measures that go well beyond existing and emerging policy for a project of its type.
- 2.21 The offsetting of remaining GHG emissions through high-quality nature-based carbon removal projects will furthermore ensure the projects has minimal residual emissions.
- 2.22 This equates to a negligible GHG effect for which the IEMA guidance states (Box 3, page 38) *“the project’s GHG impacts would be reduced through measures that go well beyond existing and emerging policy and design standards for projects of this type, such that radical decarbonisation or net zero is achieved well before 2050. A project with negligible effects provides GHG performance that is well ‘ahead of the curve’ for the trajectory towards net zero and has minimal residual emissions.”*
- 2.23 A negligible GHG effect is not significant in EIA terms, therefore, the proposals cannot reasonably be said to have a significant GHG effect in EIA terms when considered against the IEMA guidance.
- 2.24 The IEMA GHG guidance also references (Table 1, page 29) the use of sectoral budgets or reduction strategies to help contextualise a project’s GHG effect and significance. **Figures 2 to 5** present GHG emissions forecast to occur from the project within Northern Ireland alongside the Northern Ireland sectoral emissions budgets proposed by the Climate Change Committee ([www.theccc.org.uk/wp-content/uploads/2025/03/Northern-Ireland-Target-Advice-full-dataset.xlsx](http://www.theccc.org.uk/wp-content/uploads/2025/03/Northern-Ireland-Target-Advice-full-dataset.xlsx)).
- 2.25 It should be noted these graphs (**Figures 2-5**) apply a ‘logarithmic’ scale for the vertical axis (GHG emissions, tCO<sub>2</sub>e). This means that, instead of showing equal increments as in a ‘linear’ scale, it shows equal multiplicative increments where each interval is multiplied by a constant factor (10 in this case) from the previous interval. Logarithmic scales are used in scenarios such as this where very high figures (i.e. CCC’s Northern Ireland

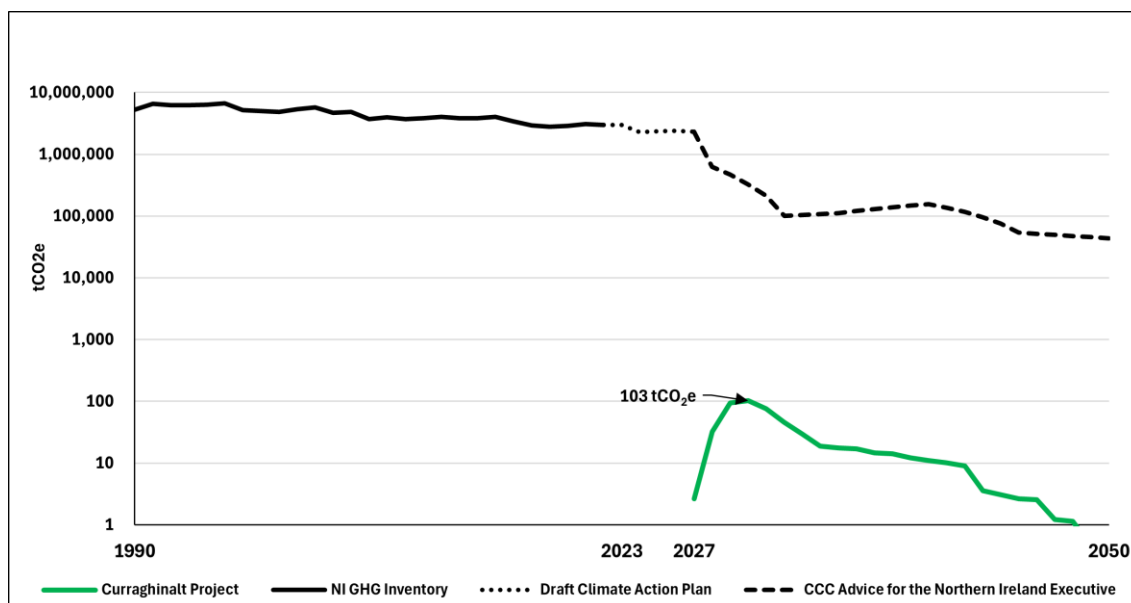
sectoral budget advice) and also very low figures (i.e. forecast project emissions in Northern Ireland) are presented together in the same graph.

- 2.26 For the purposes of reporting, GHG emissions are allocated into a small number of broad, high-level sectors known as Territorial Emissions Statistics (TES) sectors, which are as follows: electricity supply, fuel supply, domestic transport, buildings and product uses, industry, agriculture, waste, and land use land use change and forestry (LULUCF). These high-level sectors are made up of a number of more detailed sectors, which follow the definitions set out by the International Panel on Climate Change (IPCC), and which are used in international reporting tables which are submitted to the United Nations Framework Convention on Climate Change (UNFCCC) every year. A summary of the emissions included in each TES sector is outlined within the annual UK Greenhouse Gas Emissions Statistics Report (DESNZ).
- 2.27 For clarity, business and industrial sector emissions are assumed to comprise those from biodiesel HVO use, explosives use, the manufacture of surface infrastructure, oils and lubricants and lime reagent, water supply and powerline construction. LULUCF (Land Use) sector emissions are assumed to comprise net peat emissions only. Energy sector emissions comprise power generation and transmission and distribution. Waste management sector emissions comprise the management of mine and other wastes. Transport emissions comprise all car transport, inbound shipping and outbound product shipping.

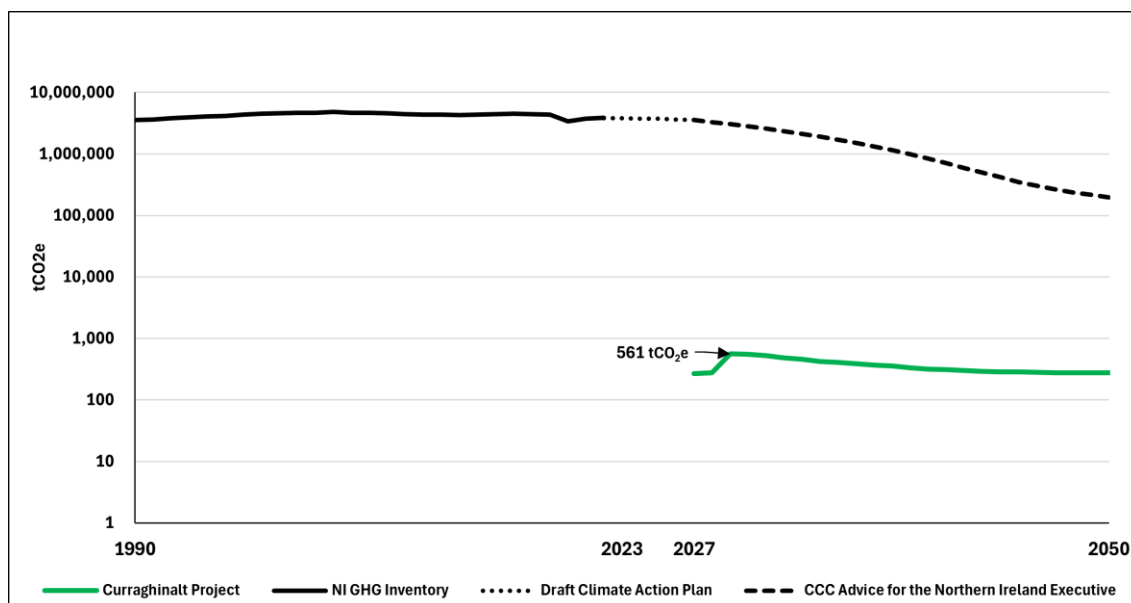
**Figure 2: Forecast Project Emissions in Northern Ireland vs CCC Sectoral Budget Advice: Business and Industrial Sector (logarithmic scale)**



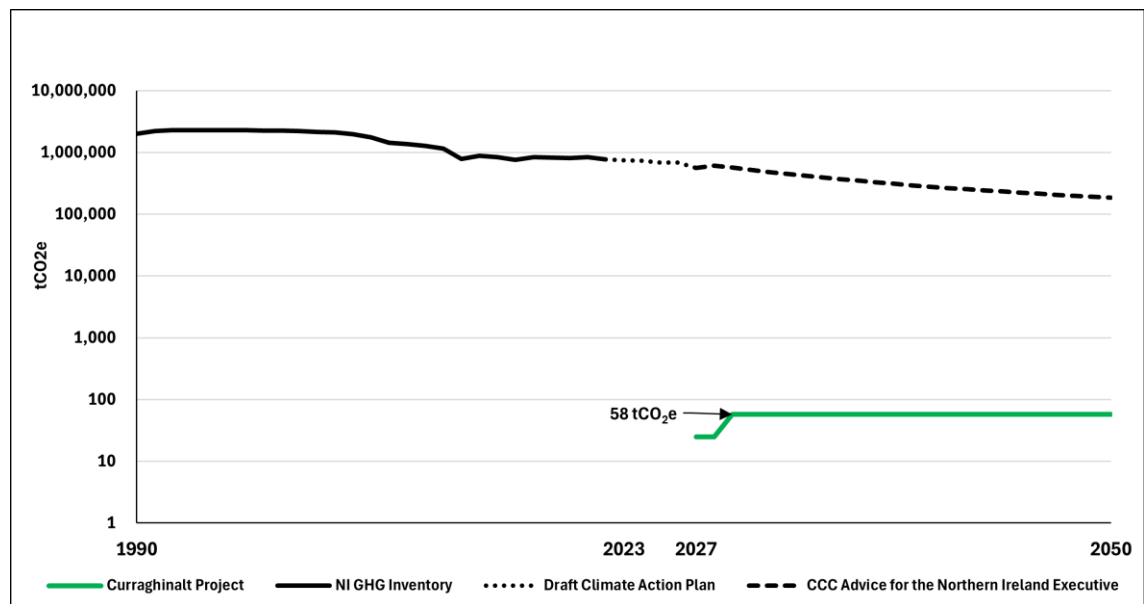
**Figure 3: Forecast Project Emissions in Northern Ireland vs CCC Sectoral Budget Advice: Energy (logarithmic scale)**



**Figure 4: Forecast Project Emissions in Northern Ireland vs CCC Sectoral Budget Advice: Transport (logarithmic scale)**



**Figure 5: Forecast Project Emissions in Northern Ireland vs CCC Sectoral Budget Advice: Waste Management (logarithmic scale)**



2.28 In the same way that **Figure 1** clearly demonstrates a substantial reduction in GHG emissions below ‘business as usual’ performance, **Figures 2 to 5** clearly demonstrate the extremely small contribution of the project to the CCC’s advised Northern Ireland sectoral carbon budgets, as well as the downward trajectory of forecast emissions in line with CCC trajectories even on the reasonable worst case basis on which Scope 3 emissions in particular are forecast and, significantly, prior to the consideration of further GHG reduction, removal and offsetting measures through the CNMP. With respect to transport emissions, the draft CAP identifies that transport emissions have grown by c6%<sup>5</sup> however Figure 4 demonstrates that the transport emissions from the mine are significantly lower than the draft CAP targets and are reducing over time.

2.29 This sectoral analysis therefore supports the conclusion reached at paragraph 2.22 above that the project cannot reasonably be concluded to have a significant GHG effect in EIA terms.

### **Additional Committed Mitigation**

2.30 A key reason for the significant reduction in project GHG emissions forecast in the updated GHG assessment (305,214 tCO<sub>2</sub>e, Scope 2 market-based) relative to the original assessment (640,040 tCO<sub>2</sub>e) is that, as introduced above, Dalradian is now able to commit to two additional GHG mitigation measures which sit within its wider commitment to ensure that the project is net zero but which have a substantial beneficial impact. As set out in TR3 (para 9.26), Dalradian had previously identified the use of low carbon alternatives to standard diesel fuel, for example biodiesel, as a potential mitigation measure. Following the continued development of the Northern Ireland market for such low carbon alternatives, Dalradian is now committed to the use

<sup>5</sup> [Draft Climate Action Plan 2023-2027.pdf](#). Table 4

of biodiesel hydrotreated vegetable oil (HVO) to substantially reduce Scope 1 (and some Scope 3 emissions) associated with site fuel use.

- 2.31 Dalradian has also confirmed the suitability of a cement specification with reduced carbon content (CEM III/B at 70% Ground Granulated Blast-Furnace Slag, GGBS) which reduces Scope 3 emissions from this source. When combined with Dalradian's existing commitment to procure 100% renewable electricity, total GHG emission reductions across the project lifecycle of 255,823 tCO<sub>2</sub>e are forecast as shown in **Table 3**.

**Table 3 Quantification of Committed Mitigation**

| Mitigation Measure             | GHG Savings over Life of Mine (tCO <sub>2</sub> e) |               |               |                |
|--------------------------------|----------------------------------------------------|---------------|---------------|----------------|
|                                | Scope 1                                            | Scope 2       | Scope 3       | Total          |
| Biodiesel HVO                  | 141,564                                            | --            | 2,603         | <b>144,167</b> |
| 100% Renewable Power           | --                                                 | 19,815        | --            | <b>19,815</b>  |
| Cement (CEM III/B at 70% GGBS) | --                                                 | --            | 91,841        | <b>91,841</b>  |
| <b>Total</b>                   | <b>141,564</b>                                     | <b>19,815</b> | <b>94,444</b> | <b>255,823</b> |
| % Saving by Scope              | 91%                                                | 100%          | 25%           | <b>46%</b>     |

- 2.32 These GHG reductions equate to 91% of Scope 1 emissions, 100% of Scope 2 emissions (market-based), 25% of Scope 3 emissions, and 46% of total forecast emissions. Dalradian has therefore committed to address the large majority of GHG emissions over which they have most control (i.e. Scope 1 and 2 emissions). Scope 3 emissions reductions can be further developed through engagement with the supply chain following the granting of planning permission and as a result are considered likely worse-case.
- 2.33 The above mitigation measures can be secured by planning condition in addition to ISO14068 compliance for carbon neutrality. ISO14068 compliance is addressed below. Additional GHG reduction and removal measures will be identified and delivered as part of the CNMP, a draft of which is presented at **Appendix 3**.

### **The withdrawal of PAS 2060 and the use of ISO 14068**

- 2.34 Within TR3 (Section 7), the Applicant had committed to using PAS2060 to objectively demonstrate how carbon neutrality is achieved and maintained across the project lifecycle. Within the RR3 (paragraph 2.34) the Applicant noted that standards with respect to alternative carbon neutrality are constantly evolving and that other standards were being developed.
- 2.35 PAS 2060 was withdrawn in November 2025<sup>6</sup> and is replaced by the ISO 14068 International Standard for Carbon Neutrality<sup>7</sup>. ISO 14068 provides principles, requirements, and guidance for achieving and demonstrating carbon neutrality. It focuses on quantifying, reducing, and offsetting carbon footprints, utilizing a hierarchical approach prioritizing direct and indirect GHG emission reductions and removal

<sup>6</sup> [PAS 2060 to be withdrawn, what you should know](#)

<sup>7</sup> <https://www.iso.org/standard/43279.html>

enhancements within the value chain over offsetting. It must be assessed and accredited by an independent, third-party technical consultant.

- 2.36 Dalradian will commit to ISO 14068 to be secured by planning condition. This secures commitment to achieving carbon neutrality over the lifecycle of the mine via a robust, recognised standard.

### **Carbon Neutrality Management Plan**

- 2.37 One of the main requirements of ISO14068 is to prepare and implement a CNMP to demonstrate a clear route and measures to implementing emission reductions measures on site over time.
- 2.38 The draft CNMP demonstrates the commitment to ISO14068.
- 2.39 The draft CNMP (found at **Appendix 3**) contains a list of committed and potential GHG reduction and removal measures that will be applied/ considered for various stages of the mine's lifecycle. The draft CNMP identifies measures to be considered which are directly supporting policies and projects contained within Northern Ireland's draft Climate Action Plan (CAP)<sup>8</sup> which was published in June 2025 for public consultation.

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<sup>8</sup> [Northern Ireland's draft Climate Action Plan 2023-2027 | Department of Agriculture, Environment and Rural Affairs](#)

### 3. Response to Additional Transboundary Consultation Issues

- 3.1 This section considers those matters raised by each third party TBR which relate to GHG emissions and carbon neutrality considerations.
- 3.2 Full consideration of the additional points raised are provided within this section. The TBR submitted by Friends of the Earth (FoE) and An Taisce have been presented in more detail below. All other TBRs submitted by third parties have been summarised in **Table 4**.
- 3.3 Many third party TBRs raised similar concerns and therefore responses to all comments pertaining to GHG emissions and carbon neutrality are grouped for clarity and efficiency with a reference to the third parties that have raised each concern. Only those issues that directly relate to climate change mitigation (i.e. GHG emissions) have been presented in this document.

#### **Friends of the Earth Northern Ireland TBA1501**

- 3.4 The additional issues raised in the TBR from FOE Northern Ireland are presented below together with our response.

*The two mega projects of the cross-border A5 road (sponsored by the Department) and the goldmine have not been assessed in combination for their climate impacts and the emissions of nitrogen.*

- 3.5 Page 21 of the IEMA guidance document([2022 iema greenhouse gas guidance eia.pdf](#)) states the following with respect to the cumulative assessment of GHG emissions:

*3.5.1 All global cumulative GHG sources are relevant to the effect on climate change, and this should be taken into account in defining the receptor (the atmospheric concentration of GHGs) as being of 'high' sensitivity to further emissions. Effects of GHG emissions from specific cumulative projects therefore in general should not be individually assessed, as there is no basis for selecting any particular (or more than one) cumulative project that has GHG emissions for assessment over any other*

- 3.6 Given the foregoing, we are of the opinion that no cumulative assessment is required. Further opinion on this issue is also contained in the legal submissions.

*There is a total failure to comply with the Climate Action and Low Carbon Development (Amendment) Act 2021 and the CCANI.*

- 3.7 The Climate Action and Low Carbon Development (Amendment) Act 2021 is legislation that is specific to Ireland and not Northern Ireland and therefore is not relevant to this Inquiry.



- 3.8 With respect to compliance with the CCANI, Section 3 of this report (paragraphs 2.5-2.12) demonstrates that the proposed development fully supports this legislation on the basis that project GHG emissions are forecast to equate to a maximum of 0.017% of the NI carbon budget for the period of 2038-2042 with total emissions across the period 2027-2042 equating to only 0.013% of total carbon budgets for this period. These emissions are before further GHG removals and offsetting. Reductions, removals and offsetting will be secured and managed under the CNMP as explained above and set out further in **Appendix 3**. This demonstrates that the proposed development is in full compliance with the CCANI and will not prevent NI from achieving its legal obligations.

### **Friends of the Earth Ireland TBA1495**

- 3.9 The main issues from the TBR from FoE Ireland are presented below together with our responses.

*A failure to assess the emissions associated with the use of fossil fuels during the construction and operation of the site with no plans in place to address these emissions in accordance with the legally binding carbon budget obligations.*

- 3.10 As stated in TR3 (Table 10) the mine was originally expected to consume c65 million litres of diesel over its lifecycle which has since been revised down to c56 million litres (**Appendix 2**). It is therefore clear that the emissions from diesel use have been considered in the GHG assessment to date and therefore we disagree with this FoE objection. However as also stated in the evidence before the Inquiry the Applicant is wholly committed to mitigating GHG emissions on site through a range of mitigation measures.
- 3.11 Paragraph 9.22-9.23 of TR3, confirms that the Applicant has already agreed to install an electric conveyor belt to transport rock to the surface for processing which will reduce diesel consumption (and therefore associated GHG emissions) by an estimated 19%. This was further to the Applicant's stated intention to seek and implement improvements where practicable. Consistent with that approach, since the submission of TR3 and RR3, the Applicant has continued to investigate the availability of biodiesel Hydrotreated Vegetable Oil (HVO) which can be used as a substitute for diesel fuel. As a result, and as set out in **Section 2**, the Applicant confirms their commitment to the use of biodiesel HVO for site fuel in place of standard diesel fuel previously proposed. This commitment is forecast to reduce Scope 1 emissions from this source across the lifetime of the mine from 141,564 tCO<sub>2</sub>e to 1,987 tCO<sub>2</sub>e, a highly significant commitment and emissions reduction.
- 3.12 As a result of the committed mitigation (and therefore clear plan to reduce emissions from diesel use), there will be a negligible impact on climate change from the consumption of diesel fuel because the Applicant will be using biodiesel HVO (a waste by product) and not directly refined diesel fuel. We therefore disagree with this objection raised by FoE NI.

*The abstraction of water will have a negative impact on peat resulting in greenhouse gas emissions.*

- 3.13 Paragraphs 3.24-3.25 of this document summarises the report attached at **Appendix 1** which demonstrates that the peat on site is currently in a degraded condition and emitting carbon and the total carbon losses over the lifecycle of the mine are c 10% of the total losses asserted by FODC.

### **An Taisce**

- 3.14 The TBR response from An Taisce is summarised below:
- 3.14.1 The previously submitted November 2024 RS from FoE England, Wales and NI is included and identified as the reasons behind the project's failure to comply with the CCANI 2022 with a particular emphasis on the levels of fossil fuel emissions at source and the lack of assessment of downstream emissions.
- 3.14.2 There is a reference to an article from the Carbon Brief which claims that emissions from mining cause 'up to £2.5tn' in environmental damages each year: Emissions from mining cause 'up to £2.5tn' in environmental damages each year - Carbon Brief.
- 3.15 The main issues raised in An Taisce's linked document from FoE England Wales and NI TBR are set out below together with our response.

*A lack of Governance ability to oversee the carbon neutral certification process.*

- 3.16 It is not for us to comment upon the knowledge and expertise of the national and local government. Since the beginning of the planning process, at Pre-application Discussion (PAD) stage and throughout the planning application stage the Applicant has responded to requests for information from the statutory consultees. The Applicant has adhered to the planning process for Regionally Significant applications which requires them to submit the application to the DfI and have continued to follow the due process for the application thereafter. Furthermore the Applicant has committed to implementing the ISO 14068 standard which is an internationally recognised and verified route to demonstrate carbon neutrality which must be certified and approved by an independent body.

*Compatibility with Climate Targets set by the CCANI 2022*

- 3.17 FoE presents three criticisms with respect to compatibility with the CCANI. These are presented below together with our response:

#### Criticism 1

- 3.17.1 *There are no carbon budgets or Carbon Action Plans (CAPs) set as yet and so no basis from which to measure compliance or how the project fits with other schemes and projects.*

### Response 1

- 3.17.2 At the time of submission of TR3 (Paragraph 3.5) and RR, the carbon budgets were in draft status and not yet adopted, however in December 2024 the NI Assembly formally adopted these into law. There were no changes between the draft and adopted carbon budgets and therefore comparison to the draft carbon budgets remains valid and a clear and consistent basis by which to establish compliance of the proposed mine with the budgets established by the CCANI.
- 3.17.3 On 19<sup>th</sup> June 2025, the Department of Agriculture, Environment and Rural Affairs (DAERA) published a draft CAP for consultation. This draft CAP presents a series of policy and proposals to achieve a 33% reduction in GHG emissions relative to a 1990 baseline. This draft CAP only addresses policies and proposals at a strategic level and does not identify or consider how individual projects are compatible with the CCANI which, in the case of the proposed mine, is the function of the planning Inquiry. It is relevant to state however that the mitigation proposed by the Applicant in connection with the project is consistent with the aspirations of the CAP as summarised in paragraph 3.13 of the CNMP.
- 3.17.4 To demonstrate the ability to deliver carbon neutrality via the ISO 14068 standard, **Appendix 3** contains a draft CNMP which has been drafted in accordance with requirements of the standard. It clearly demonstrates the committed mitigation and further measures that will be considered in order to deliver the carbon neutral requirement. Should planning permission be granted then this document will be finalised and used as part of the certification process.
- 3.17.5 Paragraph 2.5-2.12 of this TBS confirms that the scale of emissions forecast from the construction and operation of the mine do not prevent NI from meeting its legal requirements under the CCANI (2022) and that the scale of emissions will have a negligible impact upon climate change;
- 3.17.6 The draft CNMP (**Appendix 3**) sets out GHG reduction measures on-site which will achieve significant reductions over the lifetime of the mine and a raft of further measures to consider in the future which will further reduce emissions and, in combination with the support of NI / UK based nature-based removal projects, will deliver carbon neutrality.

### Criticism 2

- 3.17.7 *It is irrational for the Applicant to assess the climatic impacts against the UK carbon budgets and infer compliance with the draft NI carbon budgets. Given their draft status they are not a satisfactory baseline for which to assess the projects impact.*

### Response 2

- 3.17.8 As demonstrated in **Section 2 (Table 2)**, the assessment has considered the emissions against the (now adopted) Northern Ireland carbon budgets and the UK budgets. This approach was also followed in TR3 (Table 8). This approach is considered both rational and logical and presents an entirely satisfactory baseline with which to demonstrate that the project will have a negligible (not significant) effect upon Northern Ireland carbon budgets nor will it prevent Northern Ireland or the UK from achieving their carbon budgets.

### Criticism 3

- 3.17.9 *Given the urgent need to address climate change, even assessing the project against the requirements of the CCANI, it is not aligned with the goals of the Paris Agreement and will have a significant negative impact on the climate.*

### Response 3

- 3.17.10 The CCANI is a legislative programme that has occurred as a direct result of the UK's signatory to the Paris Agreement.
- 3.17.11 The Paris agreement is a legally-binding international treaty on climate change. It was adopted by 195 parties at the UN Climate Change Conference (COP21) in Paris, France, in December 2015. Its overarching goal is to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5 above pre-industrial levels. NI's adopted carbon budgets flow from the Paris Agreement and the Applicant disagrees with FoE that assessment against the CCANI is unsatisfactory because the CCA is enshrined in UK law (with CCANI (2022) established in Northern Ireland law) and a well-established approach for assessing a project's GHG effect upon national emissions budgets that are set from this legislation.
- 3.17.12 As stated in **Section 2**, the approach commits the Applicant to using an internationally recognised standard for Carbon Neutrality (ISO 14068). The International Standards Organisation confirms that '*by providing a structured approach to carbon neutrality, it aligns with global efforts to achieve net-zero emissions and supports the objectives of the Paris Agreement*<sup>9</sup>'.

### *The Finch Judgment*

- 3.18 FoE considers the Applicant is in breach of the Finch judgment for four asserted reasons which are presented below together with our responses.

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<sup>9</sup> [ISO 14068-1:2023 - Climate change management — Part 1: Carbon neutrality](#) - FAQ

Asserted reason 1

- 3.18.1 *Which effects fall within the scope of the EIA and should be assessed.* In effect FoE state that climate change should have been assessed as part of the EIA in accordance with the EIA Regulations 2015 and IEMA GHG in EIA guidance.

Response 1

- 3.18.2 The response to this issue is set out at Appendix 1 (Legal Submissions) to the Mine Rebuttal Statement. The available information demonstrates a negligible effect upon the climate as a result of GHG emissions from the proposed development.

Asserted reason 2

- 3.18.3 *The presentation of the data and the assessment conducted is flawed* – FoE states the Applicant has not sufficiently broken down the GHG assessment to allow for a meaningful assessment of the composite and overall impacts. As an example the emissions from 135,000 m<sup>3</sup> of peat extraction are not broken down and are likely to be a significant impact in itself. Without a full and transparent GHG emissions assessment that is broken down it is not possible to interrogate and analyse the issue.

Response 2

- 3.18.4 The updated GHG assessment presented in **Section 2** and **Appendix 2** (to be read with the material presented in the TR3 and RR3) includes a breakdown of forecast emissions by source and therefore addresses this point. The updated GHG assessment also analyses whether emissions from each source are forecast to occur within Northern Ireland (and hence be relevant to the CCANI and Northern Ireland carbon budgets) or outside Northern Ireland. Because the location of GHG emissions was not considered in the original GHG assessment, it ensured a worse-case comparison of the project's contribution to Northern Ireland carbon budgets. The updated assessment (which distinguishes between emissions inside and outside NI) now provides emissions by source as well as scope while retaining conservative assumptions.
- 3.18.5 With respect to the impact upon peat, **Appendix 1** of this TBS contains further information from Dr [REDACTED] with respect to the current condition of the peat and its associated GHG emissions which are summarised in paragraphs 3.24-3.25 of this TBS. It confirms that the peat impacted by the mine is considered to be of 'degraded quality' and emitting as opposed to storing carbon. This means that the carbon emissions lost through peat as a result of the proposed development are now substantially less than originally envisaged.
- 3.18.6 We refute the criticism that the assessment and presentation of the data is flawed and firmly believe that a robust GHG assessment, following recognised methodologies has been presented to the Inquiry for consideration.

### Asserted reason 3

- 3.18.7 *Omissions in the assessments of the effects that fall within the scope of the EIA and should have been assessed* – FoE considers that the omission of an assessment of the downstream emissions from processing the metals should be included even if this means adopting a ‘worst case’ assessment should this involve multiple countries and locations.

### Response 3

- 3.18.8 As stated in Paragraph 4.120 of TR3 and in Paragraphs 2.30-2.31 of RR3, the downstream impacts of gold are very different from that of oil which was the subject of the Finch judgment.
- 3.18.9 Paragraph 2.31 of RR3 references a World Gold Council (WGC) report which states that golds downstream emissions “have little material impact on golds overall carbon footprint or GHG emissions” and that downstream GHG emissions more generally are “extremely small” making up less than 1% of gold’s overall GHG emissions.
- 3.18.10 The location of any final processing will be determined by several factors including the price and availability of processing companies around the world albeit the options are limited. It is entirely possible that the Applicant will use different processing facilities during the course of the mine operation although at present the proposed destinations are in Europe or Canada.
- 3.18.11 The assessment is robust and conservative, providing evidence to demonstrate the insignificant contribution from the processing of the gold. The updated GHG assessment includes emissions from product refining. These emissions are calculated using the refining / recycling factor of 3.62 tonnes CO<sub>2</sub>e per tonne gold product from the World Gold Council report ‘Gold and climate change: Current and future impacts’ (2019) and the 99 tonnes of gold product that are forecast over the life of the mine. Emissions of 358 tCO<sub>2</sub>e are forecast from product refining, equating to 0.12% of total GHG emissions in the revised GHG assessment, supporting the World Gold Council conclusion that downstream GHG effects from gold are extremely small and less than 1% of total lifecycle emissions.
- 3.18.12 With respect to shipping of the gold concentrate we have maintained the shipping destination as Canada which is therefore likely to be an overestimate of the actual shipping emissions.

### Asserted reason 4

- 3.18.13 *The reliability of the assessments* – FoE considers the GHG assessment is flawed for the reasons stated above and cannot be relied upon to determine whether carbon neutrality is achievable.

#### Response 4

- 3.18.14 All three issues raised by FoE in relation to Finch have been positively addressed which, in turn, supports our conclusion that the entire GHG assessment is wholly reliable and is an accurate and thoroughly reasonable basis of forecasting potential downstream and lifecycle GHG emissions.

#### *The Reliability of Carbon Offsetting as a mechanism to achieve carbon neutrality.*

- 3.19 FoE believes the carbon offsetting market is not sufficiently reliable to deliver carbon neutrality. It provides seven reasons which are listed below together with a response from the Applicant.

#### Asserted reason 1

- 3.19.1 *The applicant has not yet clarified the specific detail of its carbon offsetting plans to underscore the authenticity of its intentions*

#### Response 1

- 3.19.2 The Applicant's approach to offsetting residual emissions following emissions reductions is set out clearly in the TR3 (Paragraphs 9.33-9.38) and in RR3 (paragraphs 2.26-2.27). The Applicant is committed to the use of high quality, verified nature-based removal projects following emission reduction measures. Furthermore, adherence to the ISO 14068 standard as confirmed in this document will also require the Applicant to identify and use appropriate high quality offsets.
- 3.19.3 **Appendix 3** contains the draft CNMP and, utilising the information provided by Dr [REDACTED] in **Appendix 1**, identifies that the current condition of the peat provides greater opportunities on site to restore the existing peat to reduce existing GHG emissions and which may enable the creation of high-quality local nature-based carbon removals. In addition, the Applicant is also actively considering the use of tree planting projects that adhere to the Woodland Carbon Code.
- 3.19.4 Furthermore, the planning condition that is proposed together with the proposed use of ISO14068 and the associated CNMP ensures a legally-binding framework for the achievement of carbon neutrality in accordance with a recognised international standard.
- 3.19.5 The commitment to reducing emissions on site can be seen from **Table 3** which forecasts that committed mitigation measures result in savings of 255,823 tCO<sub>2</sub>e over the lifetime of the mine.
- 3.19.6 Given the rapidly evolving nature of the UK carbon offset market, it is not considered reasonable to identify at the pre-planning stage which specific carbon offset projects may be available or used to achieve carbon neutrality over the lifetime of the project. Furthermore, the Applicant is committed to supporting Northern Ireland based projects and there is a benefit to retain this

focus (as opposed to the use of any current live projects) should planning permission be granted.

Asserted reason 2

*3.19.7 The use of offsets in two different countries by the Applicant to date suggests an inconsistency.*

Response 2

3.19.8 The Applicant's existing business operations have been certified carbon neutral since 2019 and as part of this certified commitment, the Applicant has purchased high-quality, certified carbon offsets from different sources which is entirely appropriate to that specific strategy.

3.19.9 ISO14068 is the leading standard for carbon neutrality and places no requirements on the location of carbon offset projects. It also places various quality criteria on any carbon offsets that are used to achieve carbon neutrality (Section 11.2 of ISO 14068) including the requirement for these carbon credits to be real, additional, measurable, permanent, and certified.

3.19.10 The Applicant's approach to the location for offsets has been consistent throughout with a commitment to prioritising local Northern Ireland / UK based offsets.

Asserted reason 3

*3.19.11 Carbon credits purchased on the international market do not count towards the UK carbon budgets so any commitment to carbon neutrality which is based on international credits would not ensure that the project would have a net zero impact for the purposes of comparison against Northern Ireland carbon budgets.*

Response 3

3.19.12 The Applicant agrees that international offsets cannot presently be used to demonstrate compliance with UK or Northern Ireland carbon budgets and has not presented any position to the contrary.

Asserted reason 4

*3.19.13 FoE has concerns that the offsetting market has deficiencies in terms of additionality and reliability which will make meaningful reductions in GHG emissions impossible.*

Response 4

3.19.14 The approach to offsetting residual emissions following emissions reduction measures is set out in TR3 (Paragraphs 9.33-9.38) and RR3 (paragraphs 2.26-2.27), and relates to the use of only high quality, verified nature-based carbon



removal projects in line with leading advice on this issue from the Climate Change Committee and Oxford Offsetting Principles, as set out in TR3 and RR3.

3.19.15 Section 11.2 of ISO14068 presents a range of minimum criteria for any offsets that are used that are fully compatible with the commitments the Applicant has made and which are summarised in the paragraph above. Section 11.2 of ISO14068 clearly states that offsets must:

3.19.15.1 Achieve real GHG emission reductions or real GHG removal enhancements

3.19.15.2 Be additional, demonstrated using a robust assessment methodology

3.19.15.3 Be measurable – in accordance with an approved carbon crediting programme

3.19.15.4 Be permanent – or issued by a provider that has adequate safeguards in place to ensure the risk of reversal is minimised; and

3.19.15.5 Be certified – via one of the high quality certifications specific listed by the Applicant in Paragraphs 9.33 – 9.38 of the Carbon Neutrality TR.

3.19.16 By committing to the principles above, offsets will be transparent, provide safeguards regarding potential impacts, provide governance information, include stakeholder consultation, avoid double-counting, minimise leakage, and have independent verification.

3.19.17 These requirements for offsetting respond robustly and positively to this criticism by FOE.

#### Asserted reason 5

3.19.18 *The Applicant intends to rely on tree planting schemes as part of a nature based approach to offsetting however FoE has concerns that tree planting projects can be negatively impacted by deforestation and disease thereby reducing their reliability.*

#### Response 5

3.19.19 Any tree planting schemes utilised by the Applicant for carbon credits will meet the Woodland Carbon Code<sup>10</sup> (WCC) which is a further commitment by the Applicant to ensure best practice as well as meet the requirement of ISO14068. The WCC includes specific requirements that projects are regularly monitored against offset quality criteria including being real and permanent, for example potential effects from fire or disease for which a buffer is included and where replanting may be required to mitigate such effects. The carbon credits purchased through this scheme are verifiable and will meet the carbon offset

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<sup>10</sup> [Home | Woodland Carbon Code](#)

quality criteria committed to the Inquiry in their evidence and to secure accreditation to ISO14068.

Asserted reason 6

3.19.20 *The Applicant intends to offset its emissions through the support of renewable energy companies in other countries. FoE has concerns that these do not generate additionality and they create significant local environmental impacts such as through community displacement or the creation of dams. Although the Applicant is committing to use third party verification of its carbon offsetting schemes, the absence of specific details on what these arrangements involve prevents an assessment of their effectiveness.*

Response 6

3.19.21 This is rejected. At no point has the Applicant stated in its submitted evidence to the Inquiry that it intends to offset its residual, unavoidable GHG emissions via the support of renewable energy generation in other countries. The Applicant has committed to procure 100% UK renewable electricity (e.g. via a Power Purchase Agreement) to mitigate emissions from its own grid electricity use. This approach is clearly set out in TR3 (paragraphs 9.28-9.32).

Asserted reason 7

3.19.22 *FoE concludes that to proceed with the application would be unlawful given the Applicant has failed to demonstrate that the project is aligned with the CCANI, and for failing to meet the requirements of the Finch judgment and EIA Regulations.*

Response 7

3.19.23 The information presented above to rebut all of the criticisms raised by FoE in the document submitted by An Taisce clearly demonstrates that all points raised with respect to alignment with the CCANI, the Finch judgment and the EIA regulations are unfounded and there is no legal reason why this application cannot be approved.

3.19.24 The information presented relevant to the criticisms demonstrates that:

3.19.24.1 The emissions from the mine are insignificant when compared to the Northern Ireland carbon budgets with forecasted project emissions in Northern Ireland between 2027 and 2042 equating to only 0.013% of overall Northern Ireland carbon budgets across the period, again prior to further GHG reductions, removals and offsetting.

3.19.24.2 The draft CNMP clearly demonstrates that the measures proposed to reduce GHG emissions across the lifecycle of the mine are supportive of a number of policies and plans proposed by the Northern Ireland Government in its own CAP. Paragraph 3.13 of the draft CNMP identify the compatibility with the NI CAP ; and

3.19.24.3 The evidence demonstrates that the emissions that occur within Northern Ireland will be offset with absolute prioritisation of Northern Ireland / UK based nature-based offset programmes.

### Third Party Transboundary Representations

3.20 **Table 4** summarises the main issues identified from the remaining third-party TB representations.

**Table 4 Summary of Transboundary Third Party concerns excluding An Taisce and FOE responses**

| Third Party                                  | Comments                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental Justice Network Ireland (EJNI) | Highlights a number of common concerns raised by others which include; poor carbon accounting and no consideration of the planned destruction of carbon sinks and legal compliance with the CCANI 2022 and the Finch judgment. The EJNI report also states that the Applicant was found in breach of misleading advertising by the Advertising Standards Agency for making false claims relating to carbon neutrality. |
| Donegal County Council                       | Impacts to the blanket bog (peat) will cause more damage through the release of carbon than the betterment plan can accommodate                                                                                                                                                                                                                                                                                        |
| Objection Sample Letter 1                    | Abstraction of half a million gallons of water per day for 25 years from the peatland would cause carbon to be lost adding to climate change and impacting our ability to meet carbon targets.                                                                                                                                                                                                                         |
| Objection Sample Letter 2.                   | Dalradian will use c3.5 million litres of diesel on site every year for 25 years which will take us past the legally binding date for net zero and will have implications for climate breakdown that are far reaching beyond the Island of Ireland.                                                                                                                                                                    |
| Zero Waste Alliance Ireland                  | The mining operation would require 15.9 m <sup>3</sup> / hour of fresh water. 8,000,000 kWh/ year of electricity and 3.3 million litres of diesel fuel per annum; all of which would have adverse impacts on the climate.                                                                                                                                                                                              |
| TBA0360: [REDACTED]                          | Gold mining is one of the most environmentally destructive industries in the world. It generates vast amounts of waste and.....contributes to climate change.                                                                                                                                                                                                                                                          |
| TBA0536: [REDACTED]                          | Objects due to impacts upon the Black Bog (Peat) with disturbance potentially resulting in significant amounts of carbon dioxide, contributing to greenhouse gas emissions. Peatlands are vital carbon sinks and their preservation is essential for climate change mitigation.                                                                                                                                        |
| TBA0596: [REDACTED]                          | The construction of the heavy-duty powerline across the Sperrins AONB would contribute to climate change                                                                                                                                                                                                                                                                                                               |

| Third Party                                           | Comments                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                       | through the diesel emissions of thousands of vehicles involved as well as the removal of peatland and the removal of trees to create the 10-metre-wide corridor. Additionally, the fossil fuel emissions occur well into the next decade and past the legally binding date for net zero targets and has implications for climate breakdown that are far reaching well beyond the Island of Ireland. |
| TBA0991: [REDACTED]                                   | Extracting the water would drain vital peatlands and drain carbon stores, releasing greenhouse gases and worsening climate change                                                                                                                                                                                                                                                                   |
| TBA1177: [REDACTED]                                   | Dalradian claim the mine will be carbon neutral which hardly seems possible.                                                                                                                                                                                                                                                                                                                        |
| TBA1206: [REDACTED]                                   | Extraction of water would impact upon the peatlands and so the stored carbon would be lost to the atmosphere adding to climate change                                                                                                                                                                                                                                                               |
| TBA1247: Progressive Politics NI                      | The consumption of 3.5 million litres of diesel fuel annually for 25 years will compromise NI's and the ROI's ability to hit net zero.                                                                                                                                                                                                                                                              |
| TBA1406: [REDACTED]                                   | The extraction of the water will damage the peatland north of Dalradian's proposed site. Peatland is an efficient store of carbon so this would be lost impacting our ability to meet climate targets regionally.                                                                                                                                                                                   |
| TBA1494: [REDACTED]                                   | The construction of the heavy duty powerline would contribute to climate change through the diesel emissions from the thousands of vehicles as well as the removal of peatland and cutting down of trees.                                                                                                                                                                                           |
| TBA1537: [REDACTED]                                   | There is a failure to account for the destruction of peatlands in the Applicants carbon accounting plans                                                                                                                                                                                                                                                                                            |
| TBA1548: Environmental Law and Justice Research Group | There is a failure to account for the destruction of peatlands in the Applicants carbon accounting plans. TR7 does not quantify emissions from disturbed or excavated peat, not does TR3 account for greenhouse gas savings from restoration effects. This undermines the credibility of the carbon neutral claims.                                                                                 |
| TBA1564: Ecojustice Ireland                           | The abstraction of 3.5 million litres of fuel annually would damage the peatlands north of the proposed mine site which means that this carbon store would be lost adding to climate change and negatively impacting our ability to meet climate targets in NI and the ROI.                                                                                                                         |
| TBA1581: Jesuit Centre for Faith and Justice          | The extraction of the water will damage the peatland north of Dalradian's proposed site. Peatland is an efficient store of carbon so this would be lost impacting our ability to meet climate targets regionally.                                                                                                                                                                                   |
| TBA1583: Rights of Nature Donegal                     | Given that we are in the middle of joint existential crisis of climate and biodiversity, wide scale destruction of trees in order to facilitate the process that is in itself a                                                                                                                                                                                                                     |

| Third Party                | Comments                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | major contributor to both the climate and biodiversity emergencies, make absolutely no sense. Furthermore there is significant destruction of peat as a result of the powerline construction                                                                                                                                                                                 |
| TBA1576: Save Inis Eoghain | Given that we are in the middle of joint existential crisis of climate and biodiversity, wide scale destruction of trees in order to facilitate the process that is in itself a major contributor to both the climate and biodiversity emergencies, make absolutely no sense. Furthermore there is significant destruction of peat as a result of the powerline construction |

- 3.21 **Table 4** above summarises the Transboundary consultation comments received with respect to climate change and carbon emissions. There are a small number of reoccurring themes within these comments and so these have been grouped below with identification of those third parties who have raised that specific issue together with our response.
- 3.22 *Impacts to the Peat Blanket Bog will cause a release of carbon emissions. (Donegal County Council, Objection Sample Letter 1, [REDACTED], Jesuit Centre for Faith and Justice)*
- 3.23 In assessing these representations, the issue was considered by Dr [REDACTED]: see **Appendix 1**.
- 3.24 In summary Dr [REDACTED] concludes that the estimates of peat loss by Fermanagh and Omagh District Council (FODC) in their submitted evidence (SoC) to the Inquiry is a gross overestimate for the following reasons:
- 3.24.1 The existing peat habitats are in a 'degraded condition' and as such are currently emitting carbon as opposed to storing it.
- 3.24.2 Any excavated peat is highly likely to retain a much greater percentage (up to 80%) of its stored carbon; and
- 3.24.3 The condition of the peat provides a much greater opportunity for restoration techniques to significantly improve the habitat and reduce the emissions.
- 3.25 Dr [REDACTED] concludes that, over the lifecycle of the mine, net emissions of only 3,675 tCO<sub>2</sub>e will be lost to the atmosphere as a result of the project.
- 3.26 *The mine will consume c3.5million litres of diesel on site every year for 25 years will have a very significant impact upon climate change as will the consumption of 8,000,000 kWh/year of electricity. (Objection Sample Letter 2, Zero Waste Alliance Ireland, Progressive Politics NI, Ecojustice Northern Ireland)*
- 3.27 Paragraphs 2.30 confirms that biodiesel HVO will be used instead of diesel fuel. Paragraph 2.31 confirms that renewable electricity will also be procured thereby resulting in no emissions or impact from electricity.

- 3.28 *Gold mining causes significant environmental impacts, particularly on climate change, water and air pollution and will prevent compliance with the CCANI 2022. (An Taisce -The National Trust for Ireland, EJNI [REDACTED])*
- 3.29 The evidence demonstrates that the impact upon climate change from the lifecycle GHG emissions are negligible and will not prevent Northern Ireland or the UK from achieving its budgets under the CCANI and CCA UK.
- 3.30 *There is a failure to account for the destruction of peatlands in the applicant's accounting plans nor has savings from restoration been considered. (Environmental Law and Justice Research Group, [REDACTED])*
- 3.31 GHG emissions resulting from extraction of peat during construction of the mine were included as presented in Paragraphs 2.20-2.25 of RR3. This information demonstrated that even based on the worse-case peat emissions suggested by FODC (32,926 tCO<sub>2</sub>e) in relation to the unsupported opinion that all carbon contained in the excavated peat would be lost, total GHG emissions from the mine prior to offsetting residual emissions are well below IEMA's 5% threshold for significance relative to a national carbon budget.
- 3.32 As stated above, Dr [REDACTED] work includes calculations of carbon lost from the peat excavation and from the restoration of peat habitat.
- 3.33 **Section 2** of this document contains an updated GHG assessment which also confirms that GHG emissions from peat are included in the assessment.
- 3.34 The GHG emissions from the loss and restoration of peat have been included in the GHG footprint.
- 3.35 *The construction of the heavy-duty powerline will contribute to climate change through the diesel emissions of the vehicles involved and the destruction of peat. Additionally the fossil fuel emissions occur well into the next decade and past the legally binding date for net zero targets.([REDACTED], Rights of Nature Donegal, Save Inis Eoghain)*
- 3.35.1 The powerline Applicant has prepared several evidence base documents however the Climate and Greenhouse Gases Rebuttal Technical Report (November 2024) concludes that:
- 3.35.1.1 With the implementation of the mitigations specified in Chapter 13 of the ES, it is concluded that the construction of the proposed underground cable and OHL will have a negligible impact on climate and GHG emissions (Section 4, page 8).
- 3.36 *There is a wide scale destruction of trees which contributes to the climate crisis. (Rights of Nature Donegal, Save Inis Eoghain)*Land Use Consultants (LUC) has prepared a number of drawings which demonstrate:
- 3.36.1 The areas of trees to be removed (Drawing reference LUC6335LPPLN001) noting that most of these are non-native conifer species, planted as shelter belts along field boundaries, and now reaching the end of their natural life span,

and have suffered from recent storm events, with many of these trees falling as a result.

3.36.2 The areas of trees to be replanted (Drawing reference LUC6335LPPLN003) noting that all species would be native and of local provenance.

3.37 Although the planting plans are outline in nature (detailed planting plans and schedules would be prepared by way of Condition), the intention is to replant at least the same quantum of trees as will be felled. The trees which will be lost will be mostly non-native conifers, and where possible, these lines of trees will be replaced with native broadleaf species, which will have a longer life span than the relatively short-lived conifers they replace. Furthermore, **Table 4** of the draft CNMP (**Appendix 3**) confirms the Applicant's commitment to the consideration of additional tree planting to remove carbon emissions from the atmosphere. These measures are in addition to the existing scenario where more trees are being planted than being lost.

## 4. Conclusions

- 4.1 This TBS considers transboundary issues, and responds to all of the TBRs received. It reflects changes to standards, guidance and the market, without which it would be inaccurate.
- 4.2 In order to respond accurately to these TBRs, it has been necessary to update the GHG assessment previously submitted, in **Section 2** and **Appendix 2**.
- 4.3 This updated GHG assessment forecasts total lifecycle GHG emissions from the mine of 305,214 tCO<sub>2</sub>e of which 32,261 tCO<sub>2</sub>e (11%) are forecast to occur within Northern Ireland and hence be relevant to the CCANI and Northern Ireland carbon budgets.
- 4.4 Of the 32,261 tCO<sub>2</sub>e forecast to occur within Northern Ireland, 22,376 tCO<sub>2</sub>e occur during future periods for which Northern Ireland carbon budgets have been set which equate to a maximum 0.017% of the budget for the period 2038-2042, prior to offsetting for carbon neutrality. This equates to a negligible GHG effect which is not significant in EIA terms. Therefore, the proposals cannot reasonably be said to have a significant GHG effect in EIA terms when considered against this guidance. Furthermore it is reasonable to conclude that the emissions from the mine do not prevent the government from achieving its carbon budgets under the CCANI or CCA UK.
- 4.5 The updated GHG assessment includes downstream emission data from the processing of the gold concentrate thereby ensuring that the assessment is compliant with the Finch judgment.
- 4.6 A key reason for the significant reduction in project GHG emissions that are forecast in the updated GHG assessment (305,214 tCO<sub>2</sub>e, Scope 2 market-based) relative to the original assessment (640,040 tCO<sub>2</sub>e) is that the Applicant is now able to commit to additional GHG mitigation measures which include the use of biodiesel HVO (instead of diesel fuel) and the use of low carbon concrete which, in combination with the existing commitment to use renewable electricity result in total GHG emission reductions of 255,823 tCO<sub>2</sub>e.
- 4.7 Following the withdrawal of PAS 2060, the Applicant will commit to the use of the internationally recognised ISO 14068 standard to demonstrate carbon neutrality.
- 4.8 The draft CNMP demonstrates the route that the Applicant will take toward carbon neutrality. This document sets out the range of committed and potential mitigation measures to reduce GHG emissions on site prior to offsetting any residual emissions via Northern Ireland / UK based nature-based projects. The mitigation measures within the draft CNMP clearly support the policies and programmes identified in the draft Northern Ireland CAP.



## **Appendix 1: Curraghinalt Peatland Carbon Emissions Assessment (SLR)**

## Appendix 2: Updated GHG Assessment

**Table 5 Updated GHG Assessment Results, Comments, & Emissions Forecast within Northern Ireland**

| Scope | Emissions Source             | Total Emissions (tCO <sub>2</sub> e) | Emissions in NI (tCO <sub>2</sub> e) | Comments                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------|------------------------------|--------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Peat                         | 3,675                                | 3,675                                | <ul style="list-style-type: none"> <li>Original assessment incorporated FODC's unsupported assertion that 100% of carbon present in excavated peat will be lost.</li> <li>Updated net emissions figure from Dr [REDACTED], peat specialist at SLR, accounts for peat areas and condition pre- and post- development including proposed peat extraction, management and restoration (see <b>Appendix 1</b>).</li> </ul> |
| 1     | Biodiesel HVO                | 1,987                                | 1,987                                | <ul style="list-style-type: none"> <li>Dalradian commitment to biodiesel HVO for site fuel substantially reduces emissions.</li> <li>Forecast fuel consumption revised from 54,281,798 litres to 55,838,454 litres. Product shipping is reported separately in Scope 3.</li> </ul>                                                                                                                                     |
| 1     | Explosives use               | 8,058                                | 8,058                                | <ul style="list-style-type: none"> <li>Previously excluded, based on Subtek Charge bulk emulsion explosive data sheet (183 kgCO<sub>2</sub>/tonne<sup>11</sup>).</li> </ul>                                                                                                                                                                                                                                            |
| 2     | Electricity (market-based)   | 0                                    | 0                                    | <ul style="list-style-type: none"> <li>DGL commitment to procure 100% renewable electricity previously assumed for mine operation only, now extended to construction and closure phases.</li> </ul>                                                                                                                                                                                                                    |
| 3     | Biodiesel HVO 'well to tank' | 31,515                               | 0                                    | <ul style="list-style-type: none"> <li>Dalradian commitment to use biodiesel HVO for site fuel.</li> <li>Forecast fuel consumption revised from 54,281,798 litres to 55,838,454 litres. Product shipping is reported separately in Scope 3.</li> </ul>                                                                                                                                                                 |

<sup>11</sup> [https://www.oricaminingservices.com/Download.ashx?File=%2F1%2FSubtek+Charge\\_TDS\\_en\\_2009-08-24\\_UK.pdf](https://www.oricaminingservices.com/Download.ashx?File=%2F1%2FSubtek+Charge_TDS_en_2009-08-24_UK.pdf)

| Scope | Emissions Source                               | Total Emissions (tCO <sub>2</sub> e) | Emissions in NI (tCO <sub>2</sub> e) | Comments                                                                                                                                                                                                                                                                                                                                     |
|-------|------------------------------------------------|--------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3     | Electricity transmission & distribution losses | 524                                  | 524                                  | <ul style="list-style-type: none"> <li>Forecast from the difference between DESNZ 'consumption-based, industrial' and 'generation-based, industrial' grid emissions factors 2027 to 2054<sup>12</sup>.</li> </ul>                                                                                                                            |
| 3     | Surface infrastructure manufacture             | 6,455                                | 3,946                                | <ul style="list-style-type: none"> <li>Emissions factors for buildings previously RICS 2014, now OneClick LCA Embodied carbon benchmark for European Buildings 2021<sup>13</sup>.</li> </ul>                                                                                                                                                 |
| 3     | Explosives manufacture                         | 75,556                               | 0                                    | <ul style="list-style-type: none"> <li>US EPA expenditure factor for 'explosives manufacture' updated from 0.521 kgCO<sub>2</sub>e/\$ (2021) to 0.500 kgCO<sub>2</sub>e/\$ (2022)<sup>14</sup>.</li> </ul>                                                                                                                                   |
| 3     | Cement manufacture                             | 64,740                               | 0                                    | <ul style="list-style-type: none"> <li>Reduced carbon cement specification (CEM III/B at 70% GGBS).</li> <li>Emissions factor updated to 0.344 kgCO<sub>2</sub>e/kg (Embodied CO<sub>2</sub>e of UK cements; MPA Fact Sheet 18; April 2025<sup>15</sup>, previously 0.832 kgCO<sub>2</sub>e/kg (ICE v3.0 2019 average UK cement).</li> </ul> |
| 3     | Steel manufacture                              | 40,720                               | 0                                    | <ul style="list-style-type: none"> <li>Emissions factor updated to CARES 2024 UK steel market<sup>16</sup> (0.72 tCO<sub>2</sub>e/tonne), previously ICE v 3.0 2019 engineering steel emissions factor (1.27 tCO<sub>2</sub>e/tonne).</li> </ul>                                                                                             |
| 3     | Oil & lubricants manufacture                   | 1,373                                | 1,373                                | <ul style="list-style-type: none"> <li>Factor updated to 1.65 kgCO<sub>2</sub>e/litre (UCLan 2023<sup>17</sup>) to account for additives,</li> </ul>                                                                                                                                                                                         |

<sup>12</sup> <https://assets.publishing.service.gov.uk/media/6567994fcc1ec5000d8eef17/data-tables-1-19.xlsx>

<sup>13</sup> <https://oneclicklca.com/resources/research-embodied-carbon-benchmark-european-buildings>

<sup>14</sup> [https://pasteur.epa.gov/uploads/10.23719/1531143/SupplyChainGHGEmissionFactors\\_v1.3.0\\_NAICS\\_CO2e\\_USD2022.csv](https://pasteur.epa.gov/uploads/10.23719/1531143/SupplyChainGHGEmissionFactors_v1.3.0_NAICS_CO2e_USD2022.csv)

<sup>15</sup> [https://cement.mineralproducts.org/MPACement/media/Cement/Publications/Fact-Sheets/FS\\_18\\_Embodied\\_CO2e.pdf](https://cement.mineralproducts.org/MPACement/media/Cement/Publications/Fact-Sheets/FS_18_Embodied_CO2e.pdf)

<sup>16</sup> [https://carescertification.com/content/HtmlContent/d7cc4369-ff70-4b95-8c62-24b076626737/1f3382f3-e62f-4e13-94d7-cb9bbfa431ab/240812%20CARES%20Understanding%20UK%20average%20embodied%20carbon%20emissions%20for%20steel%20reinforcing%20bar\\_FINAL.pdf](https://carescertification.com/content/HtmlContent/d7cc4369-ff70-4b95-8c62-24b076626737/1f3382f3-e62f-4e13-94d7-cb9bbfa431ab/240812%20CARES%20Understanding%20UK%20average%20embodied%20carbon%20emissions%20for%20steel%20reinforcing%20bar_FINAL.pdf)

<sup>17</sup> [https://knowledge.lancashire.ac.uk/id/eprint/48795/9/18\\_268.pdf](https://knowledge.lancashire.ac.uk/id/eprint/48795/9/18_268.pdf)

| Scope | Emissions Source                  | Total Emissions (tCO <sub>2</sub> e) | Emissions in NI (tCO <sub>2</sub> e) | Comments                                                                                                                                                                                                                                                   |
|-------|-----------------------------------|--------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                   |                                      |                                      | previously 0.87 kgCO <sub>2</sub> e/litre (DEFRA 2024 mineral oil, primary production).                                                                                                                                                                    |
| 3     | Ventilation equipment manufacture | 743                                  | 0                                    | <ul style="list-style-type: none"> <li>US EPA expenditure factor for 'air purification equipment manufacture' updated from 0.205 kgCO<sub>2</sub>e/\$ (2021) to 0.21 kgCO<sub>2</sub>e/\$ (2022).</li> </ul>                                               |
| 3     | Reagents manufacture: lime        | 932                                  | 932                                  | <ul style="list-style-type: none"> <li>No change.</li> </ul>                                                                                                                                                                                               |
| 3     | Reagents manufacture: other       | 5,220                                | 0                                    | <ul style="list-style-type: none"> <li>US EPA expenditure factor for 'miscellaneous chemical manufacturing' updated from 0.517 kgCO<sub>2</sub>e/\$ (2021) to 0.500 kgCO<sub>2</sub>e/\$ (2022).</li> </ul>                                                |
| 3     | Water supply                      | 60                                   | 60                                   | <ul style="list-style-type: none"> <li>UK Government emissions factor for main water supply updated from 0.153 kgCO<sub>2</sub>e/m<sup>3</sup> (2024) to 0.1913 kgCO<sub>2</sub>e/m<sup>3</sup> (2025)<sup>18</sup>.</li> </ul>                            |
| 3     | Mine waste management             | 821                                  | 821                                  | <ul style="list-style-type: none"> <li>Waste confirmed to be inorganic, hence previous organic assumption removed.</li> <li>Now categorised as 21% plasterboard and 79% aggregates – assume all landfilled however some recycling likely.</li> </ul>       |
| 3     | Other waste management            | 694                                  | 694                                  | <ul style="list-style-type: none"> <li>Previously assumed all landfilled, now assume 23% landfilled and 77% recycled or incinerated in line with Northern Ireland Local Authority Collected Municipal Waste Management Statistics<sup>19</sup>.</li> </ul> |
| 3     | Transport - car                   | 3,421                                | 3,421                                | <ul style="list-style-type: none"> <li>Originally based on current emissions factors hence no account taken of future decarbonisation.</li> <li>Update based on DfT Transport Analysis Guidance</li> </ul>                                                 |

<sup>18</sup> <https://assets.publishing.service.gov.uk/media/6846a4f55e92539572806125/ghg-conversion-factors-2025-full-set.xlsx>

<sup>19</sup> <https://www.daera-ni.gov.uk/sites/default/files/publications/daera/lac-municipal-waste-2022-23-report.pdf>

| Scope | Emissions Source                                 | Total Emissions (tCO <sub>2</sub> e) | Emissions in NI (tCO <sub>2</sub> e) | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------|--------------------------------------------------|--------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                                  |                                      |                                      | <p>(TAG) May 2025 methodology to take account of policies in place to decarbonise the UK car fleet e.g. increased fuel efficiency and electric vehicle (EV) uptake.</p> <ul style="list-style-type: none"> <li>Reasonable worse-case average return distance of 60km assumed.</li> </ul>                                                                                                                                                                                                                                                |
| 3     | Inbound shipping: surface infrastructure (roads) | 114                                  | 114                                  | <ul style="list-style-type: none"> <li>Originally based on current emissions factors hence no account taken of future decarbonisation.</li> <li>Update based on DfT TAG methodology which takes account of limited future decarbonisation of UK HGV fleet through increased fuel efficiency (no EV uptake).</li> <li>Assumes 120km HGV transport (NI).</li> <li>Excludes inbound shipping of building materials (no known way to translate building floor areas into materials weights for shipping emissions calculations).</li> </ul> |
| 3     | Inbound shipping: explosives                     | 883                                  | 432                                  | <ul style="list-style-type: none"> <li>Originally based on current emissions factors hence no account taken of future decarbonisation.</li> <li>Update based on DfT TAG methodology which takes account of limited future decarbonisation of UK HGV fleet through increased fuel efficiency (no EV uptake).</li> <li>No account taken of future rail or sea shipping decarbonisation.</li> <li>Assumes 240km rail (Europe), 270km sea (Europe) and 130km HGV (NI).</li> </ul>                                                           |
| 3     | Inbound shipping: cement                         | 2,087                                | 1,044                                | <ul style="list-style-type: none"> <li>Originally based on current emissions factors hence no account taken of future decarbonisation.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                       |

| Scope | Emissions Source                        | Total Emissions (tCO <sub>2</sub> e) | Emissions in NI (tCO <sub>2</sub> e) | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------|-----------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                         |                                      |                                      | <ul style="list-style-type: none"> <li>Update based on DfT TAG methodology which takes account of limited future decarbonisation of UK HGV fleet through increased fuel efficiency (no EV uptake).</li> <li>Assumes 150km HGV (50/50 between RoI and NI).</li> </ul>                                                                                                                                                                                                           |
| 3     | Inbound shipping: steel                 | 1,135                                | 560                                  | <ul style="list-style-type: none"> <li>Originally based on current emissions factors hence no account taken of future decarbonisation.</li> <li>Update based on DfT TAG methodology which takes account of limited future decarbonisation of UK HGV fleet through increased fuel efficiency (no EV uptake).</li> <li>No account taken of future rail or sea shipping decarbonisation.</li> <li>Assumes 240km rail (Europe), 270 km sea (Europe) and 120km HGV (NI).</li> </ul> |
| 3     | Inbound shipping: ventilation equipment | 8                                    | 4                                    | <ul style="list-style-type: none"> <li>Originally based on current emissions factors hence no account taken of future decarbonisation.</li> <li>Update based on DfT TAG methodology which takes account of limited future decarbonisation of UK HGV fleet through increased fuel efficiency (no EV uptake).</li> <li>No account taken of future rail or sea shipping decarbonisation.</li> <li>Assumes 240km rail (Europe), 270 km sea (Europe) and 120km HGV (NI).</li> </ul> |
| 3     | Inbound shipping: oil & lubricants      | 6                                    | 6                                    | <ul style="list-style-type: none"> <li>Originally based on current emissions factors hence no account taken of future decarbonisation.</li> <li>Update based on DfT TAG methodology which takes account of limited future</li> </ul>                                                                                                                                                                                                                                           |

| Scope | Emissions Source                   | Total Emissions (tCO <sub>2</sub> e) | Emissions in NI (tCO <sub>2</sub> e) | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------|------------------------------------|--------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                    |                                      |                                      | <p>decarbonisation of UK HGV fleet through increased fuel efficiency (no EV uptake).</p> <ul style="list-style-type: none"> <li>Assumes 120km HGV (NI).</li> </ul>                                                                                                                                                                                                                                                                                                                       |
| 3     | Inbound shipping: reagents (lime)  | 11                                   | 11                                   | <ul style="list-style-type: none"> <li>Originally based on current emissions factors hence no account taken of future decarbonisation.</li> <li>Update based on DfT TAG methodology which takes account of limited future decarbonisation of UK HGV fleet through increased fuel efficiency (no EV uptake).</li> <li>Assumes 120km HGV (NI).</li> </ul>                                                                                                                                  |
| 3     | Inbound shipping: reagents (other) | 63                                   | 31                                   | <ul style="list-style-type: none"> <li>Originally based on current emissions factors hence no account taken of future decarbonisation.</li> <li>Update based on DfT TAG methodology which takes account of limited future decarbonisation of UK HGV fleet through increased fuel efficiency (no EV uptake).</li> <li>No account taken of future rail or sea shipping decarbonisation.</li> <li>Assumes 240km rail (Europe), 270 km sea (Europe) and 120km HGV (NI).</li> </ul>           |
| 3     | Outbound shipping of product       | 52,065                               | 3,737                                | <ul style="list-style-type: none"> <li>Originally based on current emissions factors hence no account taken of future decarbonisation.</li> <li>Update based on DfT TAG methodology which takes account of limited future decarbonisation of UK HGV fleet through increased fuel efficiency (no EV uptake).</li> <li>No account taken of future rail or sea shipping decarbonisation.</li> <li>Assumes 120km HGV (NI), 2,881nm sea (to Montreal, Canada – previously 2,661 nm</li> </ul> |

| Scope                               | Emissions Source       | Total Emissions (tCO <sub>2</sub> e) | Emissions in NI (tCO <sub>2</sub> e) | Comments                                                                                                                                                                                                                                                       |
|-------------------------------------|------------------------|--------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     |                        |                                      |                                      | to Halifax, Canada) and 640km rail (Canada).                                                                                                                                                                                                                   |
| 3                                   | Product refining       | 358                                  | 0                                    | <ul style="list-style-type: none"> <li>Previously excluded.</li> <li>Based on World Gold Council 2019 refining / recycling benchmark (3.62 tCO<sub>2</sub>e /tonne gold)<sup>20</sup> and forecast 99 tonnes of gold product over life of the mine.</li> </ul> |
| 3                                   | Powerline construction | 1,991                                | 832                                  | <ul style="list-style-type: none"> <li>No change.</li> </ul>                                                                                                                                                                                                   |
| <b>TOTAL (SCOPE 2 MARKET-BASED)</b> |                        | <b>305,214</b>                       | <b>32,261</b>                        |                                                                                                                                                                                                                                                                |

<sup>20</sup> <https://www.gold.org/download/file/14316/gold-and-climate-change-current-and-future-impacts-3.pdf>



## **Appendix 3:   Draft Carbon Neutrality Management Plan**

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Manchester

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