

Research study into the potential  
economic, societal and  
environmental impacts of mineral  
exploration and mining in Northern  
Ireland

Contract Scope, Requirements &  
Methodology

## Scope of the Contract

The Department for the Economy is seeking to appoint a Contractor to commission bespoke analysis of the potential economic, societal and environmental impacts of mineral exploration, mining, mine closure and restoration in Northern Ireland across a range of pre-identified scenarios. The proposed methodology should incorporate an internationally recognised tool such as life cycle assessment. The research should also consider other relevant information from other jurisdictions.

## Out of Scope

The Department has no statutory authority in relation to gold and silver, therefore, the research and analysis should not consider any impacts, costs or benefits that are exclusively in relation to gold or silver.

## Research Aims and Objectives

The research should provide sufficient data to inform the Department's:

- Understanding, based on a current knowledge of the resource that might exist in Northern Ireland, of the potential economic, social and environmental benefits and dis-benefits to Northern Ireland of mineral exploration and mining, from exploration to mine restoration.
- Identification of the key economic, social and environmental variables that may be impacted by mineral exploration and mining, and to determine suitable indicators against which the impacts can be assessed and monitored.
- Identification of any potential cross border implications of mineral exploration and mining.

The specific objectives are to:

- Assess the economic, social and environmental impacts in all stages of mineral development, mining, mine closure and restoration (in each of the development scenarios set out below).
- Evaluate the supply chain, business support and the jobs likely to be directly and indirectly created, from the exploration stage through to mine closure and restoration, and their associated skills, qualifications and wage levels.
- Consider the requirements for, and benefits of developing education and training provision in Northern Ireland to meet this skill requirement.
- Estimate the potential social and environmental benefits and dis-benefits to communities hosting mines.
- Estimate the potential environmental benefits and dis-benefits of mineral exploration and mining in general and specifically to areas designated because of their environmental importance or scenic value in each of the development scenarios.
- Determine impacts of mineral exploration on other economic sectors in Northern Ireland including (but not exclusive to) tourism, transport, agriculture, fisheries, and the circular economy.

This research is intended to be an independent assessment of the potential economic, societal and environmental impacts of mineral exploration and mining in Northern Ireland. This research should be based on a range of data sources including, publicly available information, an analysis of that information and where appropriate stakeholder engagement to inform and test conclusions.

## Assessment Requirements

The Contractor will carry out the following assessment requirements.

### Policy

An assessment of the impact of UK and NI climate change policies and Net-Zero commitments on the mining life cycle.

An assessment of the impact of, current energy policy, including consideration of any indicated policy direction from the new NI Energy Strategy which is in development and which has issued a call for evidence<sup>1</sup>, on the mining life cycle.

An assessment of current and proposed future environmental policy, particularly of the ongoing work on green growth, on the mining life cycle.

An assessment of how proposals in other strategies and policies in relation to mineral exploration and mining across the UK and Ireland and globally, where appropriate, could impact on the mining life cycle. For example, these strategies and policies may include planning policy, initiatives to promote exploration and extraction, economic development measures, community benefit initiatives, etc.

### Resource Position

Consideration of the latest available evidence on:

- An assessment of the global demand and supply position in relation to critical minerals and other technology metals such as copper;
- An assessment of the key factors that determine the technically and economically recoverable resource, including their relevance to the conditions in NI; and
- An assessment of the estimates of technically and economically recoverable reserves in Northern Ireland, if they are available.

### Economic Impact Evidence

Collate and apply relevant data from existing studies examining national, regional and local impacts of mineral exploration and mining, including:

- Economic, sectoral and labour market impacts;
- Critical minerals impacts (e.g. assets, pricing, security); and
- Local community impacts.

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<sup>1</sup> <https://www.economy-ni.gov.uk/energy-strategy-call-for-evidence>

The assessment should take account of international literature due to the greater experience of mineral exploration and mining at scale and the existence of large evidence base, but consideration should be made for the geological, economic and fiscal differences between countries.

The assessment should also consider the changing importance of global and local environmental protection – particularly net zero requirements, with a focus on how this could change the economics of mineral development.

### Environmental Impact Evidence

Collate and apply relevant data available from published literature which consider the national, regional and local impacts of mineral exploration and mining, including:

- Impacts on areas which are designated or protected because of environmental importance or scenic value;
- Impact on air and water quality; and
- Local community health impacts.

Account should be taken of international literature due to the greater experience of mineral exploration and mining at scale and the existence of large evidence base, but allowing for the geological, economic and fiscal differences between countries.

### Social Impact Evidence

Collate and apply relevant data available from published literature which consider the national, regional and local impacts of mineral exploration and mining, including:

- social/community benefits and dis-benefits to communities hosting mines;
- Impact on local community cohesion; and
- Impact of potential protest sites and associated security presence.

### Impact Scenarios

The research should draw on the data available from experience elsewhere, the various impact assessment evidence and the stakeholder engagement exercise to inform the assessment of the economic, social and environmental impacts on the life cycle of mining in Northern Ireland. The Department has identified a number of development scenarios and the economic, social and environmental impacts should be assessed for each of these.

### Development Scenarios

As there is considerable uncertainty over the likely development path of mineral exploration and mining the analysis should use a range of scenarios to test the potential economic, social and environmental impacts of various development paths within Northern Ireland.

The economic impact of the activity should consider the period from now up to at least 2035 and consideration should further extend to the decommissioning of any potential mines and long term restoration.

The basis of the scenarios are summarised as follows:

- Climate Change/increased demand – Move to a low carbon economy. Net Zero commitments create higher demand for critical metals and concerns around security of supply creates incentives for NI to extract its natural geological resources. New extraction techniques mean that resources not currently economically viable are now in demand. Resources have been identified that would support a mine for 10 years, 20 years and 30 years. NI government has ensured that minerals are managed sustainably. Good environmental and health protections mean that environmental risks are controlled. Companies proactively engage with local communities to obtain a social licence and better and more employment opportunities are realised. The likelihood of this scenario is judged to be moderate.
- Status Quo – Business as Usual. Uncertainties and other barriers to widespread development remain. There remains a good supply of critical metals globally and there are no real concerns about security of supply. Resources have been identified that would support a mine for 10 years, 20 years and 30 years. Existing environmental and health protection activities are considered adequate and there increasing objections from local communities. The likelihood of this scenario occurring is judged to be moderate.
- Uncertain resource availability – There is currently insufficient information on resource potential in Northern Ireland at present and this will remain the case for the next 10 years. However, technology changes after that mean that resources not currently of interest are now economically viable and new resources are identified. Some social barriers to exploration and mining exist but there is now an acceptance that mineral resources are required to support technological change. Existing environmental and health protection activities are considered inadequate. The likelihood of this scenario occurring is judged to be moderate.

## Research Methodology

The Contractor must work closely with all local and national stakeholders where appropriate to gather the necessary evidence to meet the objectives outlined above. It is envisaged that the methodology will follow a process necessary to deliver the outputs below – a bespoke form of Life-cycle Analysis would be preferred. This should include desk top analysis and engagement.

## Research Outputs

The Contractor must prepare a detailed report which fully meets the Research Aims and Objectives and the Assessment Requirements as specified above. A short summary report covering key messages must also be provided.

The Contractor must make a presentation of their findings to senior managers within Department for the Economy and others as is deemed appropriate.

### Timescales and Costs

The overall budget for this research is a maximum of **£100k**. Therefore, the maximum contract value will be £100,000 exclusive of VAT, but inclusive of expenses and all other costs associated with the delivery of the Contract. Whilst this is the maximum budget available, in order to gain a competitive advantage tenderers should price their bids accordingly. Any bid received above this figure will not be considered and will be eliminated from the competition.

An initial payment of 45% will be made upon acceptance of an approved Draft Report, with 45% upon submission of a final Draft Report and 10% when DfE is content to sign off on a Final Report.

A draft final report should be provided within 6 months of signing of the contract, with a final report agreed and presentation to senior DfE officials within 4 to 6 weeks of agreement of the draft final report.

### Service Levels and Key Performance Indicators (KPIs)

The Contractor will be required to have an initial project initiation meeting and at least fortnightly contact, with the DfE/ Geological Survey of Northern Ireland (GSNI) Project Group to provide updates on progress and details of work undertaken.

The following outputs are:

- Output 1: Project Initiation meeting & Desk top research – list of information and data will be provided from DfE/GSNI but Contractor will be expected to add value by fully researching other sources which the Contractor identifies as relevant;
- Output 2: – Engagements – agree methodology for the Contractor to seek information from stakeholders; - a list of key stakeholders will be identified by DfE/GSNI;
- Output 3: Discussion with DfE/GSNI project group on key findings, additional analysis required and proposed structure of Report;
- Output 4: Draft produced for comment by DfE/GSNI; and
- Output 5: Final draft Report produced and DfE/GSNI comments incorporated

## Contract Management and Review

DfE/GSNI will work with the Contractor to agree:

- i. A breakdown of the working timeline to deliver a final Report within a maximum of 6 months of the signing of the contract;
- ii. Outputs at each stage of the timeline;
- iii. Agree fortnightly contact and meeting schedule with project group;
- iv. Lists of key stakeholders and licence holders with whom the contractor should engage; and
- v. List of available reports, data and statistics available from DfE/GSNI

The Contractor must appoint a Contract Manager to act as a single point of contact to liaise and communicate with DfE/GSNI to ensure that the timetable is met and the outputs required, as mentioned above, are delivered.

The Contractor must have management information and reporting systems in place to ensure that the standard of service will be measured and overall Contract performance achieved and maintained.

The Contractor must have a complaints procedure and escalation process in place to resolve any issues which may arise throughout the life of this Contract. All issues must be resolved within a ten day working period.

## Contract Period

The Contractor will be expected to complete their agreed final report within 6 months of the signing of the contract.