

PREAMBLE

This Environmental Impact Statement (EIS) has been prepared by RSK Environment Ltd. on behalf of Enterprise Energy Ireland Ltd. (Enterprise). It relates to a proposal to develop the Corrib Natural Gas Field (the Corrib Field), which is an accumulation of natural gas located about 65 km off the west coast of County Mayo. Water depth in the area is about 350 m. The gas is contained in rocks that lie at a depth of about 3 km below the seabed.

The Corrib Field is of strategic importance to Ireland in that it will provide gas, which, from demand assessments, will be needed in 2003 to enhance security of indigenous supply.

The Corrib Field lies within the area covered by Petroleum Exploration Licences 2/93 and 3/94, which are licensed to Enterprise, Statoil Exploration (Ireland) Ltd and Marathon International Petroleum Hibernia Ltd. The Field lies beyond the Irish Territorial Limit but on the continental shelf on which the Irish Government, under the 1958 Geneva Convention on the Continental Shelf, has exclusive sovereign rights over hydrocarbon resources. There is no existing infrastructure in this area to support hydrocarbon production.

Enterprise wishes to develop the Corrib Field on behalf of itself, Statoil and Marathon, and has applied to the Minister for the Marine and Natural Resources under the 1992 licensing terms for a Petroleum Lease. It has been proposed that Corrib be developed as a subsea tieback to an onshore gas reception terminal (the Bellanaboy Bridge Terminal). The wells that collect gas from the field will be connected to equipment placed on the seabed (the manifold). The gas will be transported by a pipeline from the manifold to the Terminal, the pipeline coming ashore at Dooncarton in Broadhaven Bay, County Mayo (the landfall). The gas will be treated in the Terminal to ensure it meets the necessary sales gas specification.

The proposed Terminal site is located near Bellanaboy Bridge in the townland of Bellagelly South, near Glenamoy, County Mayo. The gas will be exported from the Terminal via a Bord Gáis Éireann owned and operated pipeline to a tie-in (to the proposed ring-main joining Dublin-Galway-Cork) located near Craughwell, Co. Galway. This pipeline will potentially form the basis of a local gas distribution system.

This EIS summarises the findings of the environmental impact studies carried out for the upstream part of the development, comprising the subsea facilities in the Field, and the pipeline from the Field facilities to the Terminal with its associated control umbilical and the water discharge pipeline from the Terminal terminating in Broadhaven Bay.

An EIS for the Terminal has been prepared and was submitted to Mayo County Council in April 2001, as a part of the application for Planning Permission for the Terminal. The Terminal EIS is also required as supporting documentation for the Integrated Pollution Control Licence application which Enterprise is required to make to the Environmental Protection Agency to operate the Terminal. The scope and content of the EIS have been prepared having regard to the information requirements specified in:

- the EU Directive 85/337 (amended 97/11/EC);
- the European Communities (Environmental Impact Assessment) (Amendment) Regulations, 1989-1999;
- the Local Government (Planning and Development) Act and Regulations, 1963-1999;
- the Foreshore Acts 1933-1998;
- Foreshore (Environmental Impact Assessment) Regulations 1990 (SI220/90);
- the Petroleum and Other Minerals Development Act 1960;
- the Gas Acts, 1976-2000; and
- the Environmental Protection Agency's Guidelines on Information to be Contained in Environmental Impact Statements, and Advice Notes on Current Practice in the Preparation of Environmental Impact Statements.

The Approvals Process

Before the Corrib Field can be developed, a number of approvals, consents and licences must be in place.

The Minister for the Marine and Natural Resources regulates all exploration activities in Irish waters. To date, Enterprise and its co-venturers have carried out exploration in the Field in accordance with the terms set out in an exploration licence issued under the 1992 licensing terms. As the joint venture proposes to develop the Field, they apply for a Petroleum Lease, which when granted, sets out detailed conditions for operations.

When a Petroleum Lease has been acquired, the Licence Operator, Enterprise, must apply, in the form of a Plan of Development, for the Minister's approval to develop the Field.

The development of the Corrib Field will consist of a number of different elements, which each require further approvals, permission or licence under separate legislation. The building of the Terminal requires planning permission from the local authority. Due to the energy requirements at the Terminal, arising from the need to pressurise the export gas, an integrated pollution control licence is required from the Environmental Protection Agency before operations can commence. This licence sets out the detailed limits for all emissions from the Terminal, and specifies the monitoring regime to be put in place to ensure that these limits are adhered to.

Enterprise must also obtain the consent from the Minister of the Marine and Natural Resources to construct and operate the pipeline from the gas field to the Terminal (Gas Acts); to construct and operate pipelines and umbilical across the foreshore (gas pipeline, water discharge pipeline and umbilical below high water mark (HWM), including the two crossings) (Foreshore Acts); and to produce gas from the Corrib Field (Petroleum and Other Minerals Act).

An Environmental Impact Statement is required to accompany each of these applications. Copies of the EIS will be forwarded to statutory consultees, and the EIS will be available for public consultation during the statutory period.

Each of these approvals, permissions and licences involves a high degree of external consultation, particularly through the environmental impact assessment process, to provide opportunities for authorities with specific environmental responsibilities as well as the public and interested parties to have input into the development process, and to scrutinise and improve the project, with emphasis on preventing any avoidable environmental deterioration, before the granting of consent.

List of Contributors and Experts

The preparation of the EIS has been co-ordinated by RSK Environment Ltd, who also prepared the briefing documentation for specialist consultants. Specialist inputs were provided by:

Specialist Consultants	EIS Contributions
RSK Environment Ltd See Appendix 0.1 for brief experience/capability statement	<ul style="list-style-type: none"> • Introduction • Description of Proposed Development • Construction • Alternatives • Soils and Geology • Water • Air • Climate • Landscape and Visual Impact • Material Assets (Waste) • Assessment of Potential Environmental Effects • Cumulative Effects • Environmental Management
Alan Saunders Associates	<ul style="list-style-type: none"> • Noise
Frank L. Benson & Partners	<ul style="list-style-type: none"> • Planning and Development Context • Human Beings
Dr. D.J.H. Phillips, independent consultant (trace metals in the marine environment)	<ul style="list-style-type: none"> • Impacts from the Waste Water Discharge
Marine Archaeology Underwater	<ul style="list-style-type: none"> • Cultural Heritage (Archaeology) – Marine
Margaret Gowan Associates	<ul style="list-style-type: none"> • Cultural Heritage (Archaeology) – Terrestrial
Aqua-Fact International Services Ltd & EcoServe Ltd	<ul style="list-style-type: none"> • Flora and Fauna-Marine
Environmental Advisory and Consultancy Services	<ul style="list-style-type: none"> • Flora and Fauna-Terrestrial
David Simmons, independent consultant (cetaceans)	<ul style="list-style-type: none"> • Flora and Fauna • Noise
Oscar Faber	<ul style="list-style-type: none"> • Material Assets (Traffic)
Kirk McClure Morton, Consulting Engineers	<ul style="list-style-type: none"> • Marine Dispersion Modelling

Specialist Consultants	EIS Contributions
Gardline Surveys Ltd	<ul style="list-style-type: none"> • Geophysical and Geotechnical Data on the Corrib Field and Pipeline Route
Granherne Ltd	<ul style="list-style-type: none"> • Description of Proposed Development • Alternatives • Air Emissions • Process Description • Engineering Design
Granherne Ltd (FEED Contractor)	<ul style="list-style-type: none"> • Construction
Rudall Blanchard Associates Ltd	<ul style="list-style-type: none"> • Review of EIS (Independent Peer Review)
Professor Alasdair McIntyre, Emeritus Professor, Aberdeen University, and chair of the Atlantic Frontier Environment Network (AFEN)	<ul style="list-style-type: none"> • Review of EIS (Independent Peer Review)
Dr. Per Albriksten, Alliance Technology AS (Norway)	<ul style="list-style-type: none"> • Seawater Chemistry, Impacts Monitoring

Consultation

Consultation with government departments and other agencies was a key component of the assessment process. The main organisations contacted were:

- The Department of the Marine and Natural Resources (DOMNR);
- Dúchas (Heritage Service);
- Marine Institute;
- National Museum of Ireland;
- Mayo County Council; and
- The Geological Survey of Ireland.

In addition, a number of other organisations were consulted (**Appendix 0.2**) in order to gain information and views on the project. To assist in that process a series of public exhibitions were held and the feedback has been incorporated into this EIS. The key concerns identified by the organisations consulted are shown in the table below, along with the section of the EIS in which the issues are addressed, while a full list of comments is presented in **Appendix 0.3**.

Consultees	Key Areas of Concern	Addressed in Section
An Taisce	<ul style="list-style-type: none"> • Potential impact on the biological environment 	7
Central Fisheries Board	<ul style="list-style-type: none"> • Potential impact on fish nursery areas 	7 and 9
Dúchas	<ul style="list-style-type: none"> • Potential impact on archaeology 	14
	<ul style="list-style-type: none"> • Designated conservation sites 	7
	<ul style="list-style-type: none"> • Deposition of spoil in SAC and SPA 	3/7
	<ul style="list-style-type: none"> • Potential impact on little tern breeding site when constructing landfall 	7

Consultees	Key Areas of Concern	Addressed in Section
Erris Inshore Fishermen's Association	• Potential impact on Broadhaven Bay water quality and bioaccumulation	9 and 7
	• Restriction of access to Broadhaven Bay	6 and 15
Irish Whale and Dolphin Group	• Potential impact on cetaceans	7 and Appendix 2.1
Mayo County Council and Local Community	• Fishermen – potential impact on Broadhaven Bay water quality and shellfish	9 and 7
	• Proposed abalone farm – impact on Broadhaven Bay water quality	9
	• Potential siltation from crossing Sruwaddacon	9
	• Economic implications of construction of the onshore pipeline on farmers with respect to REPS, Headage schemes, Area Aid and Afforestation schemes	19
	• Justification of landfall location and onshore pipeline route	4, 19
Department of the Marine and Natural Resources	• Consideration of alternatives	4
	• Potential impact on offshore fisheries	6 and 7
Marine Institute	• Offshore discharges and potential impact on water quality and flora and fauna	2, 3, 7, 8, 9

In summary, feedback from observations obtained from a wide range of bodies/individuals have been taken into consideration in the course of preparing the EIS.

An information centre was established in Bangor Erris in mid-July 2001, and has attracted a substantial number of visitors and enquiries relating to the project.

An Environmental Monitoring Forum, which will have representation from Mayo County Council, EPA, North-West Regional Fisheries Board and other interests, including local representation, will be established to enable consultation throughout the development of the proposed Terminal. It is proposed that this Forum will also be consulted on the nearshore, landfall and pipeline construction aspects of the Project.