

Liquid assets

Ireland's oil and gas resources and how they could be managed for the people's benefit



Introduction

Ireland is at a crucial juncture in its approach to energy supply. As global supplies of oil and gas dwindle, more attention has focussed on the prospects for these resources in Ireland's offshore. The economic crisis has also prompted people to ask whether mineral resources could offer a new source of wealth.

Debate about Ireland's oil and gas resources has progressed somewhat, due to pressure from campaigners. There is a growing awareness that Ireland's licensing terms are highly unusual, putting Ireland at the bottom of the international league table in terms of the State's share of the revenue from the sale of oil and gas – resources that belong, according to the Constitution, to the State.

The oil industry and Irish Government no longer try to pretend that Ireland is resource-poor. They now concede that Ireland is very likely to have large reserves of oil and gas, but now argue that the only way to get at it is to transfer full ownership and control of those resources to private companies.

Media coverage of, and political debate around, this issue continues to be hampered by a lack of information and by misinformation. Politicians, economists and journalists have tended either to ignore the issue or to represent it through a distorted prism created by the oil industry lobby.

Against this background, this information booklet aims to provide an alternative source of reliable, referenced information for campaigners, academics, trade unionists, politicians, journalists and anyone with an interest in gaining a critical understanding of this sector. This booklet does not seek to prescribe any one course of action, but does set out several options for improving the situation.

– *Dublin Shell to Sea, July 2012*

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Executive summary

Generations of Irish schoolchildren have learned that Ireland lacks valuable natural resources. However, Ireland's offshore territory of 652,000 square km is nine times larger than Ireland itself. Recent government and industry data – as well as discoveries by oil companies – indicate the potential for vast reserves of oil and gas under this seabed.

According to a 2006 study for the government, the Atlantic Margin alone, off the west coast, contains "potential reserves of 10 billion barrels of oil equivalent (oil or gas)." At June 2012 prices, this is worth €750 billion euro. This estimate does not include the areas off Ireland's south and east coasts, where several valuable discoveries have been made, nor does it include Ireland's onshore.

For the purposes of this booklet, a detailed map and tables have been painstakingly compiled. **These provide, for the first time, a detailed overview of all the prospects and discoveries in Irish territory, complete with the companies' own estimates for how much oil or gas they contain. The combined total of these company estimates is almost 20 billion barrels of oil equivalent.** These tables and map are complemented by an extensive online resource, including sources.

Even if a small amount of this is present and recoverable, it will be an enormous strategic asset for Ireland. However, due to an uninformed public debate and interference by the powerful oil lobby, we risk handing over control and ownership of this asset to private oil companies, whose interests are very different from those of the Irish public.

The Irish government has been actively encouraging exploration in Irish waters. One of its aims is to turn Ireland from a "net importer" into a "net exporter" of oil and gas.

TRANSFER OF OWNERSHIP AND CONTROL

Unfortunately, the terms under which companies are granted permission to explore for these hydrocarbons are so heavily weighted in favour of oil companies that **the benefit to Ireland is almost non-existent.** The terms were introduced 20 years ago, following heavy lobbying of the Haughey government by the oil industry. Under these terms, when a company finds oil or gas in Irish territory:

- **Ownership and control of that oil or gas is transferred in full to the company;**
- **No royalties are paid to the State;**
- **The company can choose to export the oil or gas;**
- **They do not have to land the resources in Ireland or use Irish services or personnel;**
- **Even if the companies decide to sell in Ireland, the full current international price will be recovered from the consumer;**
- **Ireland has no ability to limit extraction in light of the link between fossil fuels and climate change.**

The only guaranteed benefit to Ireland from extraction of these resources is a 25% corporation tax on the profits declared from the sale of the oil or gas. Before declaring profits, **the company can write off 100% of costs against this tax, including the cost of previous, unsuccessful wells drilled anywhere in Irish waters** and costs incurred in other countries. (Following changes in 2007, in exceptional cases a very large field could incur an additional tax of between 5% and 15% on post-tax profits. However, this does not apply to the many licences granted before 2007.)

International studies show that State 'take' in Ireland is among the lowest, roughly half the rate of countries with a similar economic approach. An industry re-

port suggests **the exchequer would earn as little as 7% of the revenue generated from the sale of the gas from an Irish field.** In other words, Ireland effectively pays 25% of the exploration and development costs, but gains considerably less than 25% of the profits, despite owning the resource in the first place.

WHY HAVE SUCCESSIVE GOVERNMENTS MAINTAINED THESE TERMS?

The government and oil industry argue that it is necessary to maintain these “attractive” terms, because exploration in Irish waters is difficult, with a low success rate and because Ireland needs to secure a domestic supply of gas and oil. They also point to the importance of encouraging “inward investment”. However, improved technology and huge rises in the price of oil and gas mean it is now much easier and more lucrative to locate and extract these resources than it was when the terms were drawn up a quarter of a century ago.

SECURITY OF SUPPLY

Ireland’s terms do not provide security of supply, because they do not stipulate that Irish oil or gas must be supplied to the Irish market, or even brought ashore here. **Oil can be shipped abroad directly from the rig, meaning no jobs, investment or supply in Ireland;** gas found in the Irish Sea can be piped directly to the UK. Also, even if gas is supplied to Ireland, this will not help us in the event of an international crisis: as world prices increase, the price we pay for oil or gas from Irish fields will increase accordingly.

CAN WE NOT WAIT UNTIL MORE IS FOUND AND THEN CHANGE OUR TERMS?

There is an argument that Ireland’s terms can be changed later, once Ireland’s potential has been “proven”. Unfortunately, the Government is rapidly awarding licences for the remaining blocks that are likely to contain commercial quantities of oil and

gas. As the map and tables in the centre of this booklet show, companies are accumulating scores of prospects, waiting for international commodity prices to increase and the technology to extract to improve.

FOSSIL FUELS AND CLIMATE CHANGE

Improving Ireland’s licensing terms is not simply a case of substituting the Irish people for private corporations as the beneficiary of the extraction and burning of fossil fuels. However, under our current terms, the decision about whether and at what rate to extract such fossil fuels – in light of global climate change – is solely in the hands of these private companies, whose only motive is profit.

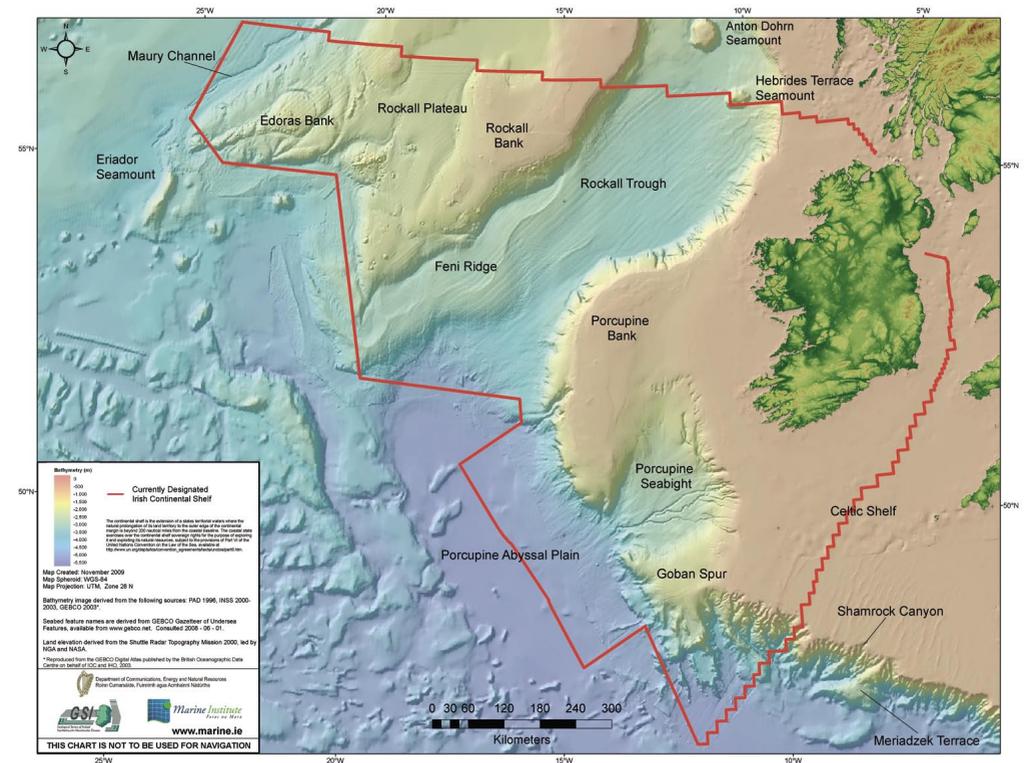
WHERE TO FROM HERE?

Across the world, national governments are redrafting their licensing terms for oil and gas exploration. In some cases, they are revoking or renegotiating existing contracts with oil companies on the basis that these deals represented a corrupt transfer of sovereign assets to private companies.

Ireland is out of step with these global developments. However, it is not too late to take action. In the section starting on page 10, we outline a variety of options that are available, based on the systems in place in other countries.

COLLATERAL DAMAGE

The harmful consequences of Ireland’s pro-corporate approach to oil and gas are not purely financial: there are also severe social consequences associated with the mismanaged extraction of our resources. The final section of this booklet documents how the State’s facilitation of the Corrib Gas project has wreaked devastation on people’s lives in north Co. Mayo and also how the huge power of the oil industry combined with the State has been given pause by the non-violent resistance of a few small communities.



Ireland’s offshore territory is nine times larger than Ireland itself
(See map on centre pages, showing all discoveries and prospects in Irish waters)

How much oil and gas is under Irish territory?

The story of Ireland’s oil and gas begins more than 200 million years ago. Oil and gas formed from oceanic sediment containing the remains of microscopic algae or plankton, which drifted down to the sea bed after their death. Over unimaginable aeons of time, these layers became many miles thick in places and were eventually compacted to sedimentary rock. Areas of sea bed which were subject to subsidence and consequent infilling by sedimentation over this period are referred to as sedimentary basins. Ireland has a relatively large offshore territory,

nine times greater than its land area. This territory contains several sedimentary basins that are geologically significant for hydrocarbon exploration.

In the Jurassic and Cretaceous Periods (roughly 200 to 65 million years ago), when much of the oil-bearing rock of the North Atlantic was formed, the North American and Eurasian continents lay close together. Ireland’s basins were formed alongside geologically similar basins (see map on next page) which are now in Norwegian, UK and Canadi-

an waters¹, and which contain proven giant oil and gas fields. These include the Faroe-Shetland, an established major hydrocarbon-producing area in the North Sea, the Møre Basin, which contains the giant Ormen Lange gas field, and the Newfoundland and Labrador waters, which produce about 270,000 barrels of crude oil per day, representing 10% of Canada's total crude oil production².

This proximity is particularly pronounced with the vast and under-explored Hatton and Rockall Basins, in the outer reaches of Ireland's offshore waters. Natural oil seeps and gas chimneys, indicators of oil and gas deposits, have been observed in these areas, which are also in the oil industry's sights for the longer-term future.^{3,4,5}

However, as yet it is in the closer and more accessible waters such as the Slyne, Erris, Porcupine and Celtic Sea Basins that most current exploration activity is focused.

IRELAND'S RESERVES BECOMING EASIER AND CHEAPER TO FIND AND EXTRACT

For more than a century now, the global oil and gas industry has been in a process of moving from 'easier' and cheaper hydrocarbon to the more challenging prospects, at first on land, next in the shallow waters of bays and lakes, and then in the deeper seas, driven by rising oil prices and technological advances. **The Irish offshore, traditionally regarded as in-**

hospitable and unrewarding, is increasingly coming within reach, and contains numerous oil and gas prospects.

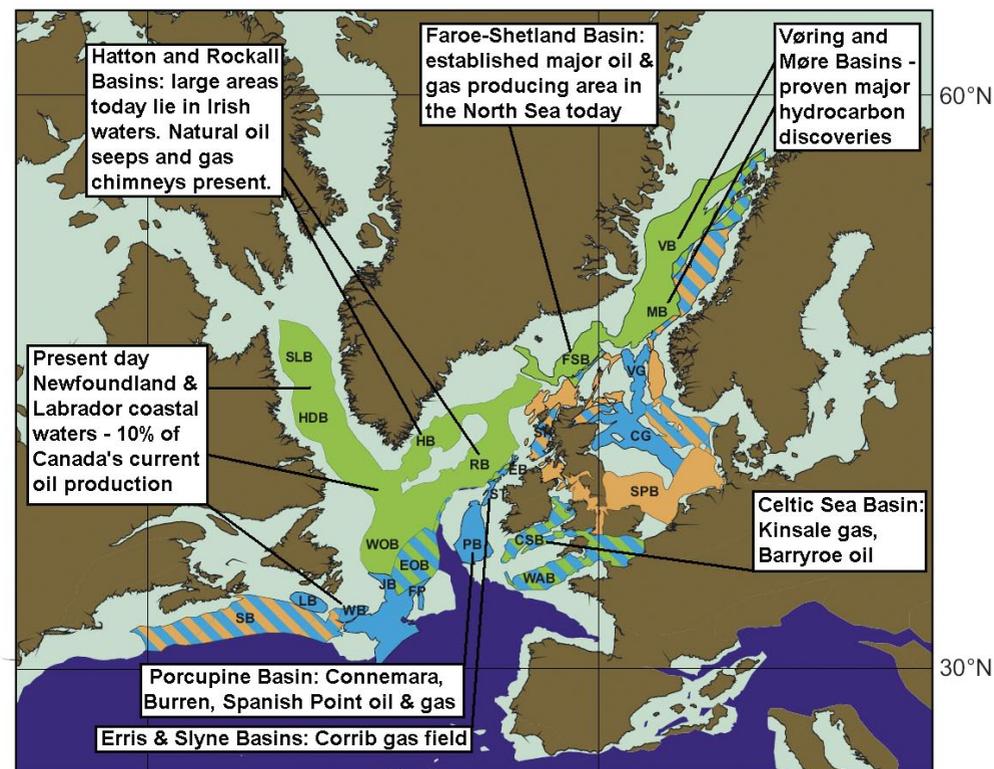
The map in the centre of this booklet (pages 22-23) shows 69 exploration areas. Their numbers on the map can be cross-referenced against the tables on pages 20-21, which give further details, including **estimates published by the relevant exploration companies for how much oil and gas they may hold.** Areas 1-21 include the most notable discoveries alongside some other areas currently attracting attention. It is likely that some of the other 48 areas will also yield significant quantities of oil and/or gas in the future. Many have been identified only very recently.

The estimates of the potential quantities in each prospect are figures that have been published by the companies who hold the licences. **The total would come to an immense 20,964 million (i.e. approx. 21 billion) barrels of oil equivalent (mboe).** If even a small fraction of this were in place and commercially recoverable, it would be worth a colossal sum of money.

These tables and map are accompanied by an online spreadsheet, with detailed information about sources: www.shelltosea.com/booklet. This will be updated on an ongoing basis and is intended as a resource for researchers, campaigners and journalists.

However, it must be borne in mind that the oil industry speaks with two contradictory voices (see box on page 14). One is the message often heard through the mainstream news media: that there is very little oil or gas to be found, and the State should reduce its terms still further since the oil companies take all the risk of exploration.⁶ Simultaneously, often in the financial pages of the same newspapers and in the industry press, the oil companies puff out the prospects of striking oil, in the hope of attracting investment.

The companies and their lobbyists are entitled to do this. However, what is important to note is that, contrary to what the oil lobby would have us believe, **Ireland is surrounded by a cloud of promising areas: experienced exploration companies have seen fit to spend**



- Present day land areas
- Present day water depths < 2 km
- Present day water depths > 2 km

Rotated to position at 100 Ma* only. These do not represent paleo-land mass or paleo-water depth.

Mesozoic rift basins (main age of formation)

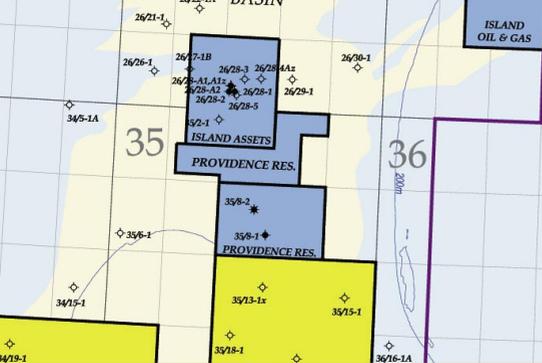
- Mainly Permo-Triassic
- Permo-Triassic and Jurassic
- Mainly Jurassic
- Jurassic and Cretaceous
- Mainly Cretaceous

Reconstruction of the North Atlantic region at approximately 100 Ma (100 million years ago, mid-Cretaceous) showing the palaeo-location of the Hatton and Rockall Basins. Reconstruction based on output from ATLAS plate reconstruction software, Cambridge Paleomap Services Ltd.

LEGEND: CG: Central Graben, CSB: Celtic Sea Basin, EB: Erris Basin, EOB: East Orphan Basin, FP: Flemish Pass Basin, FSB: Faroe-Shetland Basin, HB: Hatton Basin, HDB: Hopedale Basin, JB: Jeanne d'Arc Basin, LB: Laurentian Basin, MB: Møre Basin, PB: Porcupine Basin, RB: Rockall Basin, SB: Scotian Basin, SH: Sea of Hebrides Basin, SLB: Saglek Basin, SPB: Southern Permian Basin, ST: Slyne Trough, VB: Vøring basin, VG: Viking Graben, WAB: Western Approaches Basin, WB: Whale Basin, WOB: West Orphan Basin.

Myth Ireland imports its natural gas from Russia, which means we are vulnerable to political instability in Russia and eastern Europe.

Reality According to Bord Gais, "Ireland's imported natural gas supplies are sourced from the North Sea. The possibility of gas supplies to Ireland from these sources being restricted is very remote." (www.bordgais.ie/corporate) See also: 'Security of supply', page 25.



large sums of money on each of these in the knowledge that the possibility of a commercial find exists there, and that the potential prize far outweighs the risk.

A 2006 report for the DCENR estimated the quantity of oil and gas in the Atlantic Margin off Ireland's west coast at 10 billion barrels of oil equivalent (BBOE). This is the origin of the often quoted figures of €420 and €540 billion (the values of 10 BBOE at different times). While this is a huge figure, it applies only to the Atlantic Margin. As can be seen from the map, the majority of discoveries are in the Celtic Sea, to the south of Ireland.

THE PROCESS OF OIL AND GAS EXPLORATION (Key to [numbered labels](#) on map p.22-23)

a) Prospect, lead or other exploration (denoted by **BLACK** labels on map)

To identify an area where oil and gas might be present, existing geological knowledge is used to select areas for closer study. Then, to build up a picture of the rock layers, and thus the likelihood of the presence of oil or gas, companies use several methods, for example seismic surveys. These involve generating a shockwave underground using explosives or a pneumatic gun. Then detectors 'listen' for the returning 'echoes', and computers create images of the rock layers. Gravitational and magnetic surveys are also used.

b) Oil or gas discovery (denoted by **ORANGE** labels on map)

If successful, the exploration phase ends with the drilling of an exploration well which brings oil and/or gas to the surface, known as a 'discovery'. The project then enters the 'appraisal' phase, in which the maps of the underground are updated using data from the exploration well and further surveys. These help to determine locations to drill further 'appraisal wells' to gauge how far the oil or gas field extends underground, and whether it is commercially worthwhile to develop it for production. Appraisal may take between four and ten years – sometimes longer. Some discoveries which were deemed not commercially viable can be re-appraised years later

in the light of new data, or reprocessing of existing data; also in the light of new technologies and rising oil and gas prices.

c.) Commercial discovery (denoted by **GREEN** labels on map)

If successful, the appraisal phase ends with a Declaration of Commerciality and the project moves into the **development** phase. Only five discoveries in Irish territory have been declared commercial to date, the most recent at time of writing (July 2012), Barryroe off Cork. Development implies the bringing of the underground oil/gas field to the 'production' phase, i.e. the point where it is ready to be extracted and sold. Corrib and Barryroe are at this stage. Ballycotton, Kinsale and Seven Heads are **in production**.

THE LICENSING PROCESS

(Key to [block colours](#) on map pages 22-23)

A licence is required to carry out hydrocarbon exploration. There are different types of exploration licences in Ireland.

1) First of all, a **licensing option** can be applied for. Licensing options (LOs) are shown on the map in grey (offshore) or dark olive green (onshore). Typically valid for two years, they give the holder the first right to a future exploration licence for the area in question, subject to completion of a modest work pro-

gramme. Most of the grey blocks on the map were awarded in the November 2011 licensing round.

2) An **exploration licence** grants the exclusive right to explore for petroleum in a specified area. There are three types of licenses available, as follows:

a) **standard exploration licence** (light blue on map): issued for a period of **6 years** for an area with water depths of up to 200 metres.

b) **deepwater exploration licence**: issued for a period of **9 years** for an area with water depths exceeding 200 metres. (None are shown on the map. The block that contains the Corrib field was the only one to be issued as a deepwater licence. It is now a lease, shown in red on the map.)

c) A **frontier exploration licence** (dark blue on map) is issued for an area posing significant logistical difficulties. This type is valid for not less than **12 years** and can be extended.

3) A **petroleum lease** (red on map) grants the exclusive right to produce petroleum from the leased areas, once a discovery is declared commercial. This can last for 30 years. Production does not have to begin until 6 years after the expiration of an exploration licence. However, the licenced company is entitled to rely on its own data in assessing commerciality. The licensing terms stipulate that the Minister must grant the lease if requested.

Footnotes

1. McInroy & Hitchen, 'Geological evolution and hydrocarbon potential of the Hatton Basin (UK sector), northeast Atlantic Ocean'
2. Canadian Association of Petroleum Producers, 'Newfoundland and Labrador's Offshore Oil and Natural Gas Exploration and Production Industry', at <http://www.capp.ca/getdoc.aspx?DocID=176807>
3. McInroy & Hitchen, 'Geological evolution and hydrocarbon potential of the Hatton Basin (UK sector), northeast Atlantic Ocean'
4. Pp 2-5, at http://www.dcenr.gov.ie/NR/rdonlyres/2A154470-B6B1-495B-B268-D5429B747F13/0/1673R002Annexs2Physicalandchemicalaspects_final.pdf
5. http://www.aap.org/explorer/2000/10oct/eng-land_explo2.cfm
6. 'E.g. 'Chances of striking oil off Irish coast slim' by Fergus Cahill of IOOA, Irish Times 2009

For how long can a company sit on a licensed area?

What Ireland's licensing regime means is that a **licensing option (LO)** awarded in **November 2011 could give the holder the exclusive right to control that territory for a total of 47 years**: 2 years for the LO, up to 15 years for a licence, followed by a 30-year lease; that is, up until the year 2058. Production need not begin until 23 years after the area was cherry-picked by the company, and the pace of production can be varied to suit the needs of the corporation, which are often diametrically opposed to Ireland's needs. In the period leading up to a declaration of commerciality, nobody knows the prospectivity of an area but the company itself – the Irish government does not force the companies to reveal their data to it.

While nobody knows what the world will look like in 2058, it is safe to say that oil and gas will continue to rise steeply in price relative to other commodities. Even in the most wildly optimistic energy scenario, with a timely transition to renewable energy, there are certain functions which only hydrocarbons can perform. Despite what the oil lobbyists, successive Ministers, and media commentators say, it is not in Ireland's interests to gift its oil and gas reserves to the multinationals for them to use up in the most destructive ways possible.

How do Ireland's terms compare to those in other countries?

INTRODUCTION

Defenders of Ireland's licensing terms for oil and gas sometimes claim they conform to international practice. This is not consistent with the facts. Ireland's approach is unique in terms of both its pro-corporate bias – in particular the ceding of control to private companies – and the extremely low returns to the State. Several international studies have found that the share of revenues (government 'take') Ireland receives is among the lowest in the world, less than half that of comparable countries. As well as the issue of government take, other aspects of the licensing terms are also remarkably skewed in favour of oil companies. For example, companies which extract oil or gas from Irish waters:

- are not required to supply it to the Irish market (meaning Ireland remains vulnerable to global supply issues);
- are not required to give discounted rates if they do sell it in Ireland;
- are not required to bring it ashore in Ireland;
- are not required to source services, equipment or staff in Ireland;
- can write off 100% of costs against tax, including costs incurred up to 25 years before

field production begins and including the cost of any unsuccessful wells the company has drilled anywhere in Irish waters in that 25-year period.

The terms do not seek any State participation in development or production. The State demands no royalties. Furthermore, once the gas or oil is produced, the State no longer has any control over these resources as ownership of them is transferred in full to private, profit-making companies with no accountability to the Irish people.

THE LICENSING SYSTEM

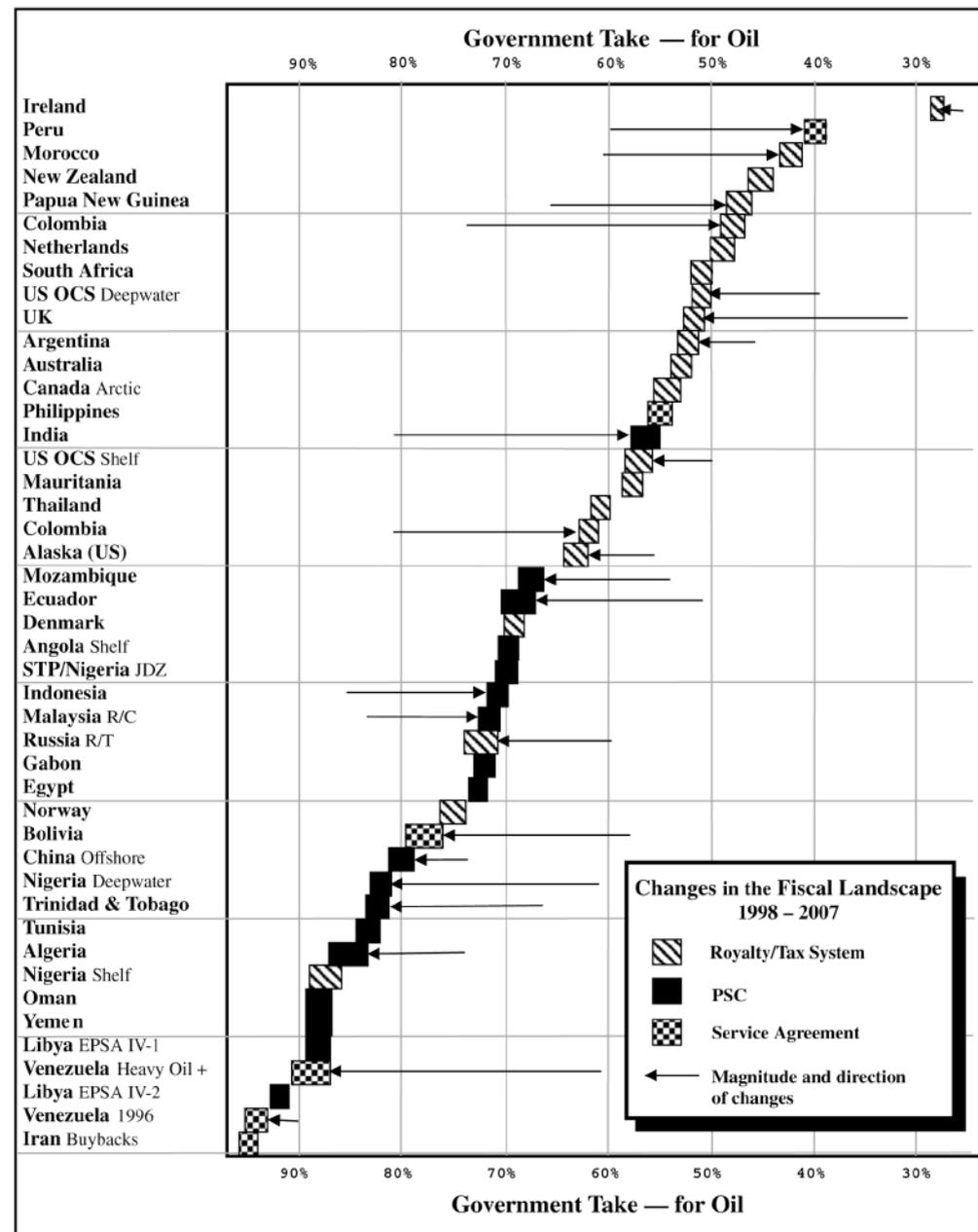
Ireland's hydrocarbon (oil and gas) reserves are managed on behalf of the people of Ireland through a licensing system controlled by the Petroleum Affairs Division (PAD) of the Department of Communications, Energy and Natural Resources (DCENR). Licences granted under this system are governed by either the 1992 Licensing Terms, introduced by ministers in Charlie Haughey's governments, or the 2007 Licensing Terms.¹ Prior to 1992, licences had been dealt with under the 1975 Licensing Terms, introduced by Labour's Justin Keating. See 'How we got here', page 30.

do so. Unless the terms are changed now, all or most of the areas likely to contain oil and gas will have been licensed exclusively to companies for decades to come. The companies will have exclusive control over how much oil is produced and when and to whom it will be sold. Moreover, data on which finds are significant can be withheld by the company. The Petroleum Affairs Division has acquiesced in the withholding of this information, thus denying to the public information relevant to the debate about Government policy on offshore exploration. See article by economist Colm Rappale: <http://colmrappale.com/?p=86>

Myth Ireland's 'take' can be increased later, once more oil and gas is found.

Oil company executive John Craven told the *Irish Independent* (April 15, 2012): "The Irish Government need to create an environment where people are happy to come in and drill and to park the tax issue until people are on production, when there is something to tax."

Reality Licences already offered by the Government can be changed, but only with considerable political will and some risk. In reality, future Irish governments will be extremely reluctant to



Johnston, Daniel: 'Changing fiscal landscape', in the *Journal of World Energy Law & Business*, 2008, Vol. 1, No. 1 (<http://jwelb.oxfordjournals.org>). Following Minister Eamon Ryan's minor changes to licensing terms in 2007, Ireland's 'take' – according to Johnston – is still well below 30%. When the extraordinary tax write-offs allowed under Ireland's terms are taken into account, this will be considerably lower than Johnston's estimate (see box on page 12).

What % of revenue from the sale of Irish oil or gas will return to the Irish State?

There is a perception that the Irish exchequer will earn a quarter of the value of oil or gas extracted from Irish territory. This is not the case. The figure of 25% is a corporation tax rate applied to the profits a company declares on the sale of Irish oil or gas. After making a 100% write-off of costs, including the cost of unsuccessful wells drilled elsewhere in Irish waters in the previous 25 years and costs incurred in various countries, how much tax will an oil company actually pay under Ireland's very unusual licensing terms?

To date, no oil or gas has been extracted under the 1992 or 2007 licensing terms, so we have no concrete example. However, the Corrib Gas project provides an intriguing insight into what this tax take might be.

Let's start by looking at the Government's prediction. In 2008, Mayo TD Michael Ring asked the minister in charge of the project, Eamon Ryan, about the value of Corrib. In a written reply on 24th September 2008, the minister said the 800-900 billion cubic feet of gas estimated to be in the field was

worth €9.5 billion and that the tax revenue from the field would be in the order of €1.7 billion. That's just under 18%.

However, one must assume that the Department of Energy and Natural Resources, which wrote that ministerial reply, would be inclined to make the most optimistic prediction possible about tax take, considering the controversy around Ireland's management of its resources. On the other hand, a prediction made by Shell, or by consultants on its behalf, would likely be much closer to the truth, especially if it was confidential. A private review by industry experts would factor in all the costs, write-offs and loopholes that Shell's skilled accountants would avail of.

Just such a confidential study of the Corrib project was carried out for Shell by globally respected energy consultants Wood Mackenzie in 2003. The study is not publicly available, but figures from the study have been provided by the man who was in charge of the Corrib project until 2002.

Brian O'Cathain was Managing Director of

Enterprise Energy Ireland before that company was bought by Shell. Speaking at a public debate at the IFI cinema in Dublin on 4th December 2010, he said that, according to Wood Mackenzie's 2003 study, "the overall tax bill that Corrib would have paid if it had gone ahead when it was supposed to would have been €340 million." O'Cathain subsequently confirmed this information to a journalist, who published it on www.irishoilandgas.com

That's just 3.6% of the field's value as given by the Department five years later. However, the price of gas did increase during those five years, so the value of the field or gross revenue in Wood Mackenzie's projections would have been lower than €9.5 billion. But how much lower? O'Cathain would not reveal what the 2003 study's estimate was for gross revenue; in other words, how much Wood Mackenzie predicted that Shell would sell the gas to Bord Gais for.

According to Bord Gais, the price at which they buy gas approximately doubled between 2003 and 2008, meaning the field was worth around €5 billion at the time of the study. On this basis, the figures suggest that, had Corrib Gas come on stream on schedule in 2005, approximately **7% of the revenue from the sale of the gas would have returned to the exchequer in tax**. Remember that what we're talking about here is the State's share in the earnings from the sale of *Irish* gas to Irish consumers (via Bord Gais) at the international price for gas.

Finally, you might wonder why Brian O'Cathain was quoting from this study. The answer is that he was arguing that delays to the Corrib project had cost the exchequer millions of euro in lost tax revenue. Remarkably, he claimed that **Corrib would not now pay any tax at all**, because the long delays would mean yet more costs that Shell could write off against tax.

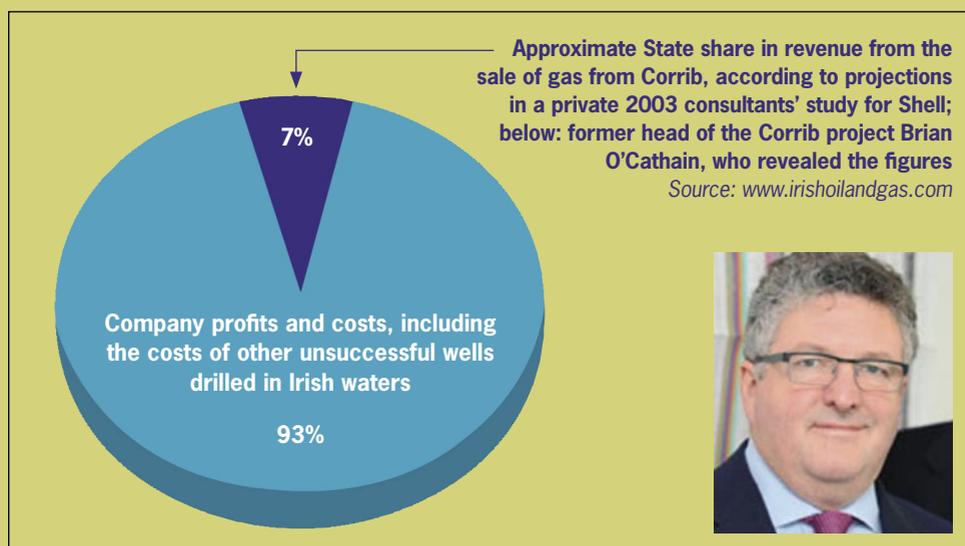
The 1992 terms came about when Keating's terms were changed in the late 1980s, initially by minister Dick Spring, but then more drastically by minister Ray Burke following intensive lobbying by oil exploration companies.² These were then further amended in 1992 by finance minister Bertie Ahern. See: '*How we got here*', page 30.

RETURNS

Financial returns to the Irish State from extraction of Irish oil and gas are extremely low by international standards. According to a report commissioned by the Irish Government, "the current fiscal system ... yields among the lowest government take in the world"³. A former director of Statoil Exploration (Ireland), Mike Cunningham, told The Irish Times in 2000 that no other country in the world had given such favourable terms to oil companies as Ireland⁴. The article continued: "He compared this to the situation in the Faro Islands, where no company can operate without agreeing to a minimum take by the Government of 55% through taxes and royalties. 'In Norway, the government got up to 79% on some of the older fields,' he said." Meanwhile, economist Colm Rapple has described Ireland's terms as "decidedly soft by international standards"⁵. A 2012 report by a Joint Oireachtas Committee on oil and gas exploration also referred to this reality, placing Ireland at the bottom of a league table of dozens of countries, with regard to financial returns, and recommending an increase in the latter.

IRELAND IN A GLOBAL CONTEXT

The Department of Energy and Natural Resources has frequently boasted about the "attractiveness" of the Irish licensing system⁷. This is demonstrated by a table contained in a report carried out for the Department by consultants Indecon⁸. Ireland's position is starkly illustrated in a study by international petroleum expert Daniel Johnston (see diagram, page 11). In 2008, Johnston compared 45 fiscal systems in 40 countries. The graph reflects the fact that, even allowing for the PRRT introduced in 2007, the maximum government take in Ireland



is well below 30%. The results show just how out of step Ireland is with the rest of the world. Ireland's is the lowest take on the graph; even the second lowest country, Peru, has a rate of government take of more than 40%.

Notice how, in 38 of the 45 fiscal systems surveyed, government take was greater than 50%, nearly twice that of Ireland, while more than half of the fiscal systems (28) resulted in government take greater than 60% – more than twice the rate of Ireland. Ireland's take is roughly half that of its neighbours, the US and the UK. As will be seen below, Ireland's terms are well out of line with those of other countries, and not just oil-rich countries but even with the poorest.

2007 TERMS

Following public protest over the prospect of such poor returns to the exchequer, the Department reviewed the 1992 Licensing Terms. In

June 2007, minister Eamon Ryan introduced new licensing terms, presenting them as a significant overhaul of Ireland's licensing system. They were reported as such in the mainstream news media, with the implication that 40% of oil and gas wealth would return to the exchequer. Unfortunately, the reality is very different.

The new terms introduced a Profit Resource Rent Tax (PRRT), levied on the net profits, i.e. the profits remaining after the corporation tax had been paid (see box on page 17). In exceptional cases, where a field is highly profitable, this could be up to 15%, but in the case of smaller and medium-sized fields, it would be zero.

Given the extraordinary value of fossil fuels, these taxes still remain extremely low by international standards. Eamon Ryan's changes made no reference to royalties, equity share, carbon taxes nor any proposal to ring-fence these taxes for investment in renewable energy systems.

simply cherry pick the choicest areas.

Although it is true that the exploration process involves the drilling of more 'dry wells' than 'gushers', this risk is calculated in advance in light of the above data, and balanced against the potential rewards and the likelihood of a find. **In the long term the oil giants cannot lose.** This is why their profits are so phenomenal, for instance Shell's profits of €2.5 million per hour in 2011.

Although the industry is very skilled at presenting a poor mouth, industry leaders speak with a very different voice when talking amongst themselves, for example in the industry press. Holders of Irish licences regularly boast that **Ireland's waters hold great promise**, and that the Irish regulatory and fiscal regime is the "best in the world" for the industry.

Energy costs are expected to increase enormously in coming decades, but the Irish state is handing over exclusive licences, which can be sat on for up to 23 years before starting production, on giveaway terms established 20 years ago by Ray Burke and Bertie Ahern.

Table 2.1: Estimated Government Take

Country/Region	Government Take (%)
North America	42 – 60+
South America	25 – 90
Ireland	25
Europe excluding Ireland	35 – 65
Sub Saharan Africa	44 – 85
FSU, Middle East, North Africa	60 – 90+
Asia (exclude Central)	40 – 84

Source: DCMNR (2006).

From 'Expert Advice on Review of Irish Petroleum E&P Licensing Terms', a 2007 report by consultants Indecon for the Irish government (www.dcenr.gov.ie)

In addition, Eamon Ryan's terms still include the tax write-offs that allow the company to whittle down their declared profits, so that the corporation tax and the new PRRT are calculated on relatively low amounts. Finally, the 2007 terms only apply to fields licensed after January 1, 2007. Even if a field goes into production in 2020, for example, the 1992 terms will still apply if the original exploration licence for the field was granted before 2007.

GOVERNMENT 'TAKE'

"Government take" is defined as the total percentage of revenue from oil and gas production and can take the form of tax, royalties, bonuses or some other method of extracting revenue⁶. Ireland uses only one means of extracting revenue from our oil and gas: a tax on profits from their sale. A 25% tax rate is applicable under both the 1992 and 2007 Licensing Terms. However, the terms allow the company to offset all costs associated with the oil or gas project before they declare profits and they can include costs "incurred in the 25-year period prior to commencement of field production", including the cost of other unsuccessful wells drilled in Irish

waters, costs incurred in other countries and the cost of dismantling the project. In short, this means the State will not earn anything close to 25% of the value of the field. The tax write-offs are so generous that – according to figures provided by the former head of Corrib Gas project – the State will end up receiving as little as 7% of the revenue from the sale of Irish gas or oil to Irish consumers (see box on page 12).

DIFFERENT TYPES OF FISCAL SYSTEM

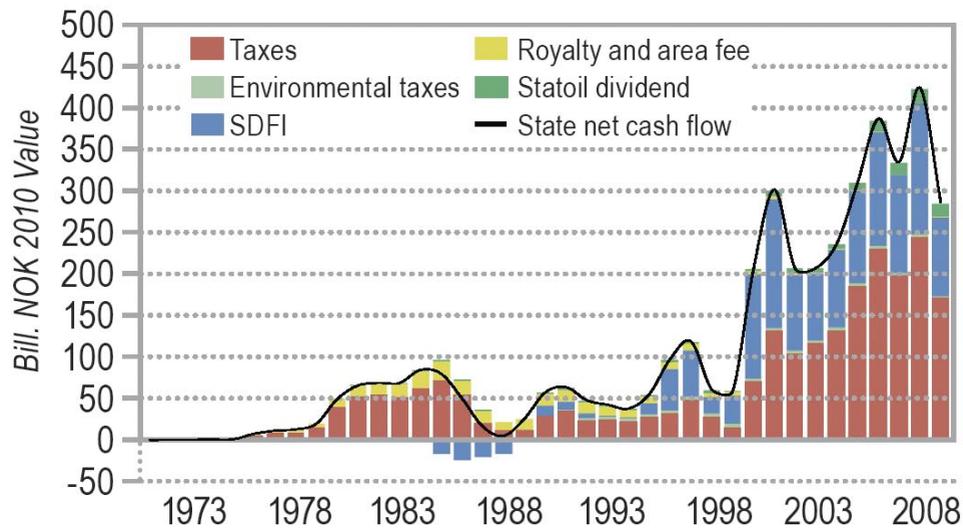
Johnston's 2008 study is interesting for another reason. In the table, notice that he differentiates between three types of approach to gas and oil management by governments:

- Licensing System (Ireland uses this type, also known as a Royalty/Tax system): the government transfers ownership of the resource to the company, in return for the payment of returns from the sale of the product;
- PSCs (Production Sharing Contracts): government retains ownership but gives the oil company a right to receive a share of production.
- Service Agreements: company is paid an agreed fee for its exploration, development and production services.

Myth Oil and gas in Ireland's hostile waters are like needles in a haystack. If our fiscal terms really respresented a giveaway, more companies would be exploring here.

Reality Ireland's waters are becoming more attractive for exploration year by year. Impelled by commercial pressure, by rapidly developing technology, and by the approaching exhaustion of fields that were more accessible (such as the North Sea giants), global exploration is constantly expanding into deeper and more remote waters.

Imaging techniques have advanced greatly, but the licensing terms have scarcely changed in two decades. Seismic, magnetic and gravitational surveys from land, ships, aircraft and satellites are integrated with complex data from other wells into sophisticated mathematical models to give a clearer picture than ever before of which areas are likely to hold oil and gas. Many surveys are paid for by the taxpayer, just one of many subsidies to the industry. Companies can



Other countries typically extract revenue via several sources. Table shows Norway's net government cash flow from Petroleum activities (source: Norwegian Public Accounts 2009 and SDFI account figures)

The differences between these three are crucial, as under both the Production Sharing Contracts and Service Agreements the government retains strong control of the gas and oil when it has been produced. On the other hand, under the Licensing (or Royalty/Tax) System, ownership of the State's gas and oil is transferred to the oil company that extracts it. However, other countries using the Royalty/Tax System differ from Ireland in that:

- they receive much higher rates of return;
- many are guaranteed a supply of their own gas and oil;
- many extract royalties or bonuses as well as tax, while Ireland extracts only tax (the US government has received over \$65 billion in bonuses for the Outer Continental Shelf since 1953.)⁹

A 2006 study for the US government states that Production Sharing Contracts are likely to be the preferred contract type in new acreage rounds¹⁰. Not only is Ireland's approach to licensing not common practice internationally, it almost falls off the bottom of the chart when compared to other countries.

In summary, Ireland's licensing system fails on several grounds:

- Extremely low rates of government take, among the lowest in the world.
- No State participation in exploration, development or production.
- Ownership and control of Irish gas and oil is transferred to international oil companies, which means:
 - no guarantee of resources being sold to the Irish market;
 - no guarantee that the oil or gas will be landed in Ireland;
 - no guarantee of jobs or investment in Ireland;
 - Irish consumers must pay full market prices for Irish resources.
- No consultation with the public about how Ireland's gas and oil is, or should be, managed.
- No public debate around the speed at which oil and gas in Irish territory should be exploited – or whether it should be exploited at all – given the major contribution fossil fuel consumption makes to global climate change and environmental degradation.

Options for Ireland

If Ireland is to enjoy any real benefit from its potentially vast oil and gas reserves, serious changes are required before any further petroleum leases are awarded or additional acreage is opened up for licensing. Separately, the Government could impose a moratorium on exploration licences and leases already granted before Ireland gives away any more of its resources.

Some members of the Government and the oil industry lobby argue that changes can't be made because either a) we'll scare away the oil companies, or b) the current licensing system prevents it.

However, opportunities for change lie in both the 1992 and 2007 Licensing Terms for offshore oil and gas exploration, development and production, through which the Minister for Energy and Natural Resources has the right to increase money terms, grant authorisations, impose conditions, suspend or interrupt activities, and revoke authorisations. In their research for the US Minerals Management Service (2004, 2006), Kaiser and Pul-

sipher declare that contract terms are often negotiated and renegotiated as political and economic conditions change, or as the perception of prospectivity in a region changes. When Bolivia, Russia and others renegotiated terms in recent years in order to reduce the companies' share, the industry warned that those countries would be shunned. However, the companies ultimately accepted the new terms because the profits were still so handsome.

Similarly, Daniel Johnston (2008) acknowledges the strong position of states and their ability to change their fiscal systems, arguing that resource management has a "changeable nature". He writes that there are so many changes currently underway, it is difficult to keep track of them all. "Oil companies, particularly the majors, are struggling to hold on to their position in face of the overwhelming pressure in almost every country in which they operate"¹¹.

Every country except Ireland, that is.

Ireland, however, can change its approach

What is PRRT?

PRRT, or Profit Resource Rent Tax, was introduced by Minister Eamon Ryan (pictured) under the 2007 Licensing Terms. PRRT is payable on profits, subject to a profit ratio which is defined as "the cumulative after tax profits on the specific field divided by the cumulative level of capital investment on the specific field"¹⁸. Once after-tax profits (against which costs have already been offset) are divided by the level of capital investment for the overall project, companies may pay a PRRT of between 5% and 15%, based on the following ratio:

- No change where the profit ratio is less than 1.5
- An additional 5% where the profit ratio is



- between 1.5 and 3.0
- An additional 10% where the profit ratio is between 3.0 and 4.5
- An additional 15% tax where the profit ratio exceeds 4.5

Considering that companies can offset all costs, and then have the ratio of their capital investment calculated against the remaining profits, it appears that only the largest, most profitable fields will see companies paying the PRRT. The 2007 terms make little real difference. If anything, they serve to reinforce how badly Ireland fares from extraction of its hydrocarbon reserves.

to how its resources are managed and there are a wealth of options available. We consider three possible options here – improving the existing licensing system; introducing a contractual system (production sharing contracts and service contracts); or utilising a hybrid system. It is arguable that, whichever model is used, it should be subjected to a comprehensive process of public consultation and engagement in decision-making, giving people in this country a say in how Irish gas and oil is managed.

1. Overhaul the Irish licensing system

Under a licensing system, a form of which is used in Ireland, the State transfers ownership and control of its oil and gas to the company that produces it. This company can be a multinational oil company or a state oil company. A licensing system is also used in countries such as New Zealand, US, UK, Denmark and Norway, with a key difference being much higher returns to these states.

Learning from Norway

Under Norway's licensing system, corporations are liable to pay a tax rate of 78%. Of this, 28% is the ordinary tax rate and 50% is a special tax derived from the extractive activities. This is more than three times the level of taxation in Ireland under the 1992 licensing terms. In addition, corporations are subject to a number of environmental taxes. In Norway, the net government cash flow from petroleum activities in just one year (2008) was more than €50 billion. What makes Norway's model of resource management especially valuable is the state's direct participation in exploration, development and production. This takes place via the State Direct Financial Interest (SDFI) and also via Statoil. Originally a state company, Statoil is still 67% owned by the Norwegian government¹². The SDFI is managed by Petoro AS, a state-owned corporation, and the percentage of state participation is decided when licences are awarded. For example, if a 40% state participation is agreed, Petoro will contribute to 40% of the costs and receive 40% of the profits.

According to Norway's Ministry of Petroleum and Energy, the state's net cash flow from the petroleum sector amounted to 27% of total revenues in 2009. State revenues from this sector are allocated to a special fund known as the 'Government Pension Fund – Global', set up in 1995. By the end of 2009, the value of this fund was NOK 2,640 billion¹³ (around €325 billion). As Norway's population is 4.9 million, the fund is worth €66,000 per capita, making it the largest capital reserve per head of population of any nation.

"Throughout nearly 40 years of business activities, the industry has created values of approximately NOK 8,000 billion (€980 billion) in current terms"¹⁴.

Following Norway's example, Ireland could modify its licensing system and increase its tax rate. Ireland could also introduce:

- royalties;
- a 'State Direct Financial Interest';
- a requirement upon companies to guarantee supply to the State at reduced prices;
- a State-owned oil company to also produce resources, ensuring increased returns to the State with additional benefits accruing through the use of local services, workforce and materials.

This would leave plenty of profit to be made by companies, while bringing Ireland into line with other countries.

2. Introduce a contractual system.

Under a contractual system, the state retains ownership of the oil and gas, and is involved in production either through sharing production, i.e. production sharing contracts (PSCs), via its national oil company and international oil companies, or by allocating service contracts to companies. Countries using a contractual system include Ecuador, India, Malaysia, the Philippines and China.

Ecuador's contractual system

Ecuador uses PSCs and service contracts, ensuring significant economic benefits for the country. International oil companies participate – with Petroecuador (the national oil company) – in exploration and production.

Department of Communications, Energy and Natural Resources
Roinn Cumarsáide, Fuinnimh agus Acmhainní Nádurtha
www.pod.ie

LICENSING TERMS for OFFSHORE OIL and GAS EXPLORATION, DEVELOPMENT & PRODUCTION

Ireland operates a low tax model with the aim of encouraging investment in exploration. Ireland's tax model is based on a tax on profits and allows for a 100% write off of exploration costs. There are no royalty payments, no State participation and no production levies.

Operating Expenses
Operating expenses are 100% deductible.

Exploration Cost Allowance
Exploration costs can be written off immediately (i.e. 100% write off in Year 1 or as early as possible thereafter). This write off rule relates to all exploration expenses, including those exploration costs that are not field relevant, provided they have been incurred in the 25 year period immediately prior to commencement of field production.

Participation of contractors varies between 81.5% and 87.5%. Under a PSC, contractors are subject to a corporate income tax of 25% and royalties of between 12.5% and 18.5%.

Under the Service Contracts, the contractor commits to Petroecuador to provide exploration and exploitation services, using its own economic resources, and the contractor has to invest the necessary capital and use the equipment required for such contracts¹⁵. A percentage of production belongs to the government and companies are subject to a higher income tax rate of 44%. In addition, all companies are required to make other financial contributions, including 'compensation for public construction', water and minerals contribution, provinces contribution, fund for the development of the Amazon provinces, fund for the development of the ecosystem of the Amazon region, and environmental warranties¹⁶.

In adopting the Ecuadorian model, Ireland could make use of the existing State-owned Irish National Petroleum Corporation (INPC). This company was established in 1979 but was precluded from engaging in production.

By using the INPC, or establishing a new national oil company, Ireland could enter into contractual agreements with international oil companies. Critics might argue that the INPC lacks the capital, human or technical resources for this. However, Ireland could follow Norway and Statoil's example and devise a contract in which INPC staff are trained by the oil companies with which they would share production, becoming involved in all the phases of a project from exploration, through development and into production. The INPC's share of profits would go towards financing the development of the INPC. Upon developing the necessary expertise and resources, the INPC could then become a partner in production through the implementation of production sharing contracts, or could conduct operations on its own.

In countries such as Mexico, Iran and Venezuela, the state produces its resources through its state-owned oil companies. While the state may engage multinational companies to perform specific services, the state remains in control of operations at all times.

Service contracts are another option for

Ireland's most significant prospects & discoveries (see map, p. 22)

Number on map, page 22	Name of prospect / discovery	Oil or gas or both	Current operator	Estimates published by company - up to:	Million barrels of oil equivalent (mmboe)
1	Corrib gas field	Gas	Shell	1,000 bcf	172
2	Bandon oil discovery	Oil	Serica Energy	1.7 tcf	292
3	Connemara oil field	Oil	Island Oil and Gas	26.5 mmbo + 10.6 bscf	28
4	Spanish Point	Gas condensate & oil	Providence Resources	1.4 tcf gas, 160 mmbo	401
5	Burren oil discovery	Oil	Providence Resources	66 mmbo	66
6	Dooish gas condensate discovery	Gas Condensate	Shell E&P Ireland	69 mmbo	69
7	Lough Allen gas field	Gas	Lough Allen Natural Gas Co (Langco) & Tamboran	9,400 bcf	1617
8	Dalkey oil prospect	Oil	Providence / Petronas	870 mmbo	870
9	Clare Basin shale gas exploration	Possible shale gas	Enegi Oil	n/a	n/a
10	Helvick oil field	Oil	Providence Resources	15 mmbo	15
11	Dunmore oil discovery	Oil	Providence Resources	18 mmbo	18
12	Hook Head oil field	Oil & gas	Providence Resources	ca. 120 mmbo	120
13	Ardmore/Nemo	Gas & heavy oil	Providence Resources	230 mmbo	230
14	Old Head of Kinsale gas field	Gas	Island Oil and Gas	78 bcf	13
15	Kinsale Head gas field	Gas	PSE Kinsale Energy	1,400 bcf	241
16	Ballycotton gas field	Gas	PSE Kinsale Energy	60 bcf	10
17	Seven Heads gas field	Gas	PSE Seven Heads	35 bcf gas	6
18	Barryroe	Oil	Lansdowne Oil and Gas	24 bcf gas + 1,600 mmbo	1,604
19	Schull gas field	Gas	Island Oil and Gas	18.2 bcf	3
20	Carrigaline gas discovery	Gas	Lansdowne Oil and Gas	81.8 bcf	14
21	Galley Head gas discovery	Gas	Lansdowne Oil and Gas	86 bcf (estimate)	15

bcf and bscf – billion cubic feet of gas at standard temperature and pressure
tcf – trillion (one thousand billion, or 1,000,000,000,000) cubic feet
mmbo – Million barrels of oil

These tables and map are accompanied by an online spreadsheet, with detailed information about sources: www.shelltosea.com/booklet

Other areas in Irish territory (see map, p. 22)

Number on map, page 22	Name of prospect / discovery	Estimates published by company – in MMBOE	Number on map, page 20	Name of prospect / discovery	Estimates published by company – in MMBOE
22	Amergin oil prospect	231	46	Petrel Resources Nov 2011 LO	n/a
23	Eremon lead	n/a	47	Bluestack Energy Nov 2011 LO	n/a
24	South East Rosscarberry gas prospect	12	48	Two Seas Oil&Gas Nov 2011 LO	n/a
25	West Rosscarberry gas prospect	9	49	Spanish Point South LO	n/a
26	Rosscarberry gas prospect	52	50	Wilde / Behan oil + gas prospect	n/a
27	Western Upside gas Prospect	13	51	Syngé, Shaw, Rusheen (North and South), Costelloe (Main, North and South) leads	n/a
28	Baltimore heavy oil & gas discovery	100	52	Slyne gas prospect (excluding Inishmore)	n/a
29	Marin gas prospect	13	53	Inishmore gas prospect	292
30	Middleton (Celtic Sea) gas prospect	46	54	San Leon Nov 2011 Slyne LO	172
31	Pegasus / Dionysus gas prospect	52	55	Achill lead (gas)	n/a
32	Orpheus gas prospect	50	56	Liffey oil & gas prospect	758
33	Dragon gas discovery & field	39	57	Boyne oil & gas prospect	226
34	East Kinsale gas prospect	13	58	Kylemore LO	n/a
35	Blackrock oil discovery	613	59	Cashel oil prospect	250
36	Rushane lead (oil)	30	60	Kingfisher gas Prospect	808
37	Newgrange oil & gas prospect	4	61	Killiala gas prospect	688
38	Tir Na nOg oil & gas prospect	5800	62	Conn oil & gas prospect	250
39	Europa Oil & Gas Nov 2011 LO	n/a	63	Fiachra oil & gas prospect	500
40	Drombeg oil & gas prospect	n/a	64	West Dooish Prospect (Rockall Basin LO)	n/a
41	Dunquin North and South oil & gas prospects	3732	65	Serica West Middleton gas & gas condensate prospect (Rockall Basin LO)	n/a
42	Cuchulain oil & gas prospect (incorporating Emer, Conall and Blathnad leads)	241	66	Serica Middleton gas & gas condensate prospect (Rockall Basin LO)	n/a
43	Petrel Resources Nov 2011 LO	n/a	67	Mackoght prospect	n/a
44	Antrim Energy Nov 2011 LO	n/a	68	Muckish east prospect	n/a
45	Europa Oil&Gas Nov 2011 LO	n/a	69	Muckish Gas and gas condensate, possible oil prospect	166

LO = Licensing Option

Myth The Corrib field will supply 60% of Ireland's gas needs

Reality The gas in Corrib – one trillion cubic feet or approx 30 billion cubic metres – is equivalent to the quantity of gas consumed in Ireland every **six years**. According to Bord Gais, around five billion cubic metres is consumed in the Republic of Ireland each year. What Shell has said is that Corrib “will supply up to 60% of Ireland's gas needs during peak production and is estimated to have a field life of between 15 and 20 years.” (www.corribgaspipeline.com)

“Peak production” will be short-lived. Shell's careful phraseology has had its intended effect: media reporting has simplified Shells' claim to: “Corrib will supply 60% of Ireland's gas needs for 20 years”. In fact, if Shell's figures are accurate, a field life of 20 years would see Corrib supplying up to 15% of Ireland's gas needs over its lifetime.

Furthermore, Shell is at liberty to export the gas via the UK. This means Bord Gais must bid against buyers in other countries, which in turn means consumers here will pay the same for Corrib gas as they currently pay for gas imported from Norway.

ried out by both international oil companies and the Irish State. If a licensing system is used, the current system under the 1992 and 2007 licensing terms would have to be replaced with one which brings real benefits to people in Ireland.

Following Peru's example

Peru combines a licensing system and service contracts. Exploration and production is conducted under licence or service contracts granted by the government. Under a licence contract, the contractor pays a royalty, whereas under a service contract the government pays remuneration to the contractor. However, in Peru, a licence contract does not imply a transfer or lease of property over the area of exploration or exploitation. By virtue of the licence contract, the contractor acquires the authorisation to explore or to exploit hydrocarbons in a determined area and Perupetro (the entity that holds the Peruvian state interest) transfers the property right in the extracted hydrocarbons to the contractor, who must pay a royalty to the state¹⁷. Companies are also subject to a corporate income tax of 30%.

CONCLUSION

Clearly, there is a wealth of options available to Ireland. The experience of other countries provides several models which Ireland could consider.

The current debate around Ireland's fiscal terms has, to some extent, been falsely simplified by the Government and oil lobby to one question: can Ireland afford to invest the hundreds of millions of euro required to explore for oil and gas? This question is wilfully misleading.

For example, during a Dáil debate on the issue in April 2011, Minister for Energy and Natural Resources, Pat Rabbitte dismissed proposals for State involvement in the sector:

“At €80 to €100 million spend per hole drilled I am unsure where the money could be found for that at this time ... Having regard to the high risk of unsuccessful exploration, it is difficult to make the case that the Irish tax-

payer should invest billions of euro in an intensive exploration effort at this time. Instead, this should be left to the industry.”

This is a false argument. In order to take a share in an oil or gas field discovered by a private company, the State would not need to have shared the risk involved in finding that field. The State can simply issue exploration licences to private companies on the basis that when a discovery is made, the State will step in and take a percentage share in the ownership.

These resources belong to Ireland in the first place. Thus, it is entirely reasonable for the State to retain ownership of a percentage of an oil or gas field discovered by a private corporation, while granting that company a generous share the field they discover.

Indeed, this was the model used in Ireland between 1975 and 1992. Minister Ray Burke abolished this State share.

This shared ownership could operate on a sliding scale: the bigger the find, the greater

the share that the State takes. For smaller finds, the State could take a smaller share.

Footnotes

1. The 1992 and 2007 Licensing Terms are available at: www.dcenr.gov.ie
2. Centre for Public Inquiry, 2005, pp.57-60.
3. Indecon, 2007, p. 15.
4. ‘Region fears Corrib oil pipeline will pass it by’, Irish Times, 13/10/2000.
5. www.colmrapple.com
6. US Government Accountability Office, 2007, p. 11.
7. See reports: Fox, 2003; Indecon, 2007.
8. Indecon, 2007, p. 5.
9. Johnston, 2008, pp. 49-50.
10. Kaiser and Pulsipher, 2006, p.73.
11. Johnston, 2008, p.38.
12. Ministry of Petroleum & Energy, Norway, 2010, p. 21.
13. Ministry of Petroleum & Energy, Norway, 2010, p. 14.
14. Ministry of Petroleum & Energy, Norway, 2010, p. 14.
15. Ernst & Young, 2009, p. 97.
16. Ernst & Young, 2009, pp. 99-100.
17. Ernst & Young, 2009, p. 219.
18. Ernst & Young, 2009, p. 124.

Security of Supply

The question of “security of supply” is the subject of one of the great contradictions in Irish government policy on oil and gas. A central argument in defence of Ireland's unusual licensing terms has been that “attractive” terms are needed to encourage exploration and thereby secure a domestic supply of oil and gas. This argument has no basis in reality. Because Ireland's licensing terms were drafted to meet the wishes of the oil industry, there is no obligation on companies who find oil or gas in Irish waters to supply it to the Irish market. In other words, Ireland's licensing terms do not provide any improvement in our security of supply.

In the case of Corrib Gas, for example, the Shell-led consortium has the option of exporting the gas via one of three interconnector

pipelines between Ireland and Scotland. What this means is that Bord Gais must bid against buyers in other countries in order to secure gas from Irish waters. Irish consumers will pay the full international market rate for this gas.

Furthermore, not only are companies under no obligation to supply the Irish market: they are not even required to land the oil or gas in Ireland. This makes a mockery of another central tenet of government policy: namely, that further oil and gas discoveries will create jobs, infrastructure and “investment” in Ireland. Oil companies operating in Irish waters plan to export oil directly from the rig. Oil extracted from Irish waters is unlikely ever to come ashore in Ireland, which would mean no jobs or investment in Ireland, no new infrastructure, no oil supply to the Irish market

and no protection against global price rises. In the case of gas, there is also genuine doubt over whether future discoveries in Irish waters will come ashore in Ireland.

Our licensing terms weaken rather than strengthen our security of supply.

THE GLOBAL PICTURE

Security of energy supply has become a crucial issue in today's world. We are now either close to, or have just passed, "peak oil" – or the peak carbon resource production point. From now on, reserves of commercially extractable oil and gas will decline and their cost will rapidly rise. Thus, it is becoming more important that a country has its own reserves or else a guaranteed supply from nearby countries. As an island on the periphery of Europe, Ireland's security of supply is seen as particularly urgent.

Ireland has become highly dependent on gas, both for home heating and for electricity generation. In 2009, 57% of our electricity was generated by burning gas.¹

WHERE DOES OUR GAS COME FROM?

There is a widely-held belief in Ireland that our gas is sourced in Russia or the Ukraine. Debates about the Corrib Gas project and the wider issues around Ireland's offshore oil and gas issue often feature warnings that Ireland is "vulnerable" to events in eastern Europe. We must get the gas ashore quickly, we are told, as the "pipeline from Russia" might be cut off at any moment.

In fact, Ireland does not source any of its natural gas from eastern Europe, but it is hardly surprising that this myth enjoys such widespread currency. Then Minister for energy and natural resources Noel Dempsey even used it in an comment piece published in The Irish Times on September 8th, 2005: "Our natural gas is imported through Britain from some of the most unstable regions in the world."

So what are the "unstable" regions through which Ireland's gas is imported? The answer is that more than 95% of Ireland's gas is imported and all of this comes via Scotland from

North Sea gas fields. The remainder comes from the Kinsale gas field. According to Bord Gais, "Ireland's imported natural gas supplies are sourced from the North Sea. The possibility of gas supplies to Ireland from these sources being restricted is very remote."²

However, all of our imported gas does reach us through one pipeline in Scotland. There is a tiny risk that supply could be interrupted due to damage to this onshore pipeline, though there is a "very low probability" of this, according to John Fitzgerald of the ESRI³. An onshore pipeline can be repaired much more quickly than an undersea pipeline. There are three undersea interconnectors between Scotland and Ireland, one to Northern Ireland and two to the Republic.

The government/oil industry might argue that, if the supply of gas from Russia to western Europe were interrupted, then western European demand for North Sea gas would suddenly increase; and that this would put Ireland in a vulnerable position, if we did not have a domestic supply. However, as we shall see, Ireland's licensing system does not protect against this eventuality: if a situation arose in which Ireland had to bid against other European states for North Sea gas, then we would also be bidding against those countries for gas from Irish fields.

COMPANIES CAN EXPORT OUR GAS & OIL

One of the many fundamental deficiencies in Ireland's management of its oil and gas resources is that there is no requirement on exploration companies to sell Irish oil and gas to the Irish market. They are at liberty to sell it abroad. They can pump our gas through "interconnector" pipes to the UK and beyond. These interconnectors were laid primarily to bring gas from the UK to Ireland, but they are designed so that they can, if required, facilitate the export of gas. In the case of crude oil, the companies can choose to pump oil directly into tankers at the rig for immediate export.

These companies are not even required to land the oil or gas in Ireland. An example is the Dalkey Prospect off Dublin, operated by Providence Resources, a company controlled



Ireland's oil and gas and climate change

Any discussion of fossil fuel extraction must consider climate change. All fossil fuels add carbon dioxide (CO₂) – as well as other pollutants – to the atmosphere when they are burned. This is another argument in favour of Ireland retaining control of its oil and gas deposits, rather than passing that control to private corporations. But does it also mean that it would be a mistake to extract any of them? For the sake of the planet, would we be better off leaving them in the ground?

The overwhelming scientific consensus on climate change is that human activity is the cause of the rapid increase in global average temperatures over the past several decades. Scientists are agreed that, unless drastic steps are taken, we are facing increases in temperature that will have catastrophic consequences for human and other life on the planet. Despite this, the governments of the world have failed to agree anything approaching a solution.

Climate change is highly unequal in its effects. The people who are worst affected live in developing regions of the world; they have contributed little to the problem. The enormous energy demands of the developed world, and the resulting scramble for fossil fuels, also have harmful consequences for people who live close to the point of extraction, such as around the Corrib Gas project in north Mayo (see page 33)

and potentially areas of Ireland's northwest, where hydraulic fracturing or "fracking" may be used (see page 31).

The energy use and carbon output of hyper-consumerist societies such as Ireland are well above the global average. We don't need nearly as much energy as we currently consume. On average, each person in Ireland uses the equivalent of 3,700 kg of oil per year.

Significant energy use/emissions reductions can be made by reducing consumption of manufactured goods, improving energy conservation etc. We can also develop more renewable energy sources. However, the reality is that such changes will take time and a transition phase is inevitable.

Above all, it makes no sense for the decisions affecting climate change to be in the hands of private corporations. Their only goal is maximising profits for their shareholders; they will always opt to extract and burn fossil fuels as rapidly as possible with no regard for what dangerous impacts this might have, either in terms of extraction or pollution caused by consumption.

The need for Ireland to reduce emissions that contribute to climate change is yet another compelling reason for the ownership and control of our energy resources to be in the hands of the Irish people rather than private corporations.

by media baron Tony O'Reilly and his family. Providence estimates it contains up to 870 million barrels of oil, a third of which might be "recoverable". Providence has stated that the oil would be loaded into tankers at the rig and exported directly to a refinery abroad.⁴

This means there will be no change to Ireland's security of supply. Oil fields in Irish waters might as well be off the coast of Greenland. It will also mean:

- no protection against further rises in the global price of oil and gas;
- no onshore jobs;
- no new infrastructure.

What about employment on the oil rigs? In practice, the workers on these rigs are not based in Ireland. An Irish Times article in 2007 about the Corrib Gas rig reported that, of the 100 staff, there was "only one Irish person on the rig, with the majority of workers flying in from Aberdeen."⁵ Scotland will see more economic spin-offs than Ireland will from oil production here.

WILL IRISH GAS BE EXPORTED DIRECTLY FROM OFFSHORE FIELDS?

Turning to gas, Prof John Fitzgerald of the ESRI has warned that companies might consider piping gas from Irish waters directly to the UK⁶. Gas from a field off Ireland's east coast could be piped to Wales. In relation to gas off the west coast, a radical new technology is being developed, which would allow gas to be shipped directly from the field. Floating Liquefied Natural Gas (FLNG) is being pioneered by Shell for the Prelude gas field off northern Australia. FLNG allows gas to be processed and liquefied at sea and transferred to tankers for export.⁷ Again, this would mean no security of supply and no jobs or investment in Ireland.

The Department of Energy and Natural Resources has pointed out that: "Any future oil/gas production project in the Irish offshore would require the approval of the Minister for the Plan of Development for the project. The methodology proposed for producing the oil/gas would be central to the Minister's consideration of a proposed Plan of Develop-

ment."⁸ In other words, if the company was proposing to pipe the gas away from Ireland, the Minister could choose not to approve the project.

However, ministers in Irish governments have a very poor track record in balancing the interests of people in Ireland against those of powerful oil companies. It should be cause for grave concern that, if a multinational corporation wished to export gas directly from an Irish field, all it would need to do is persuade a minister to approve its Plan of Development.

PIPING GAS THROUGH IRELAND FOR EXPORT

Even when gas is piped ashore in the Republic, it can be exported via one of our interconnector pipelines to Scotland. Indeed, turning Ireland into a "net exporter" of gas is an element of Government policy. This means Bord Gais will have to bid against buyers in other countries. So, if the international price of gas were to double in the next 10 years, the price Irish consumers pay for gas would double, even if that gas comes from Irish fields. This was confirmed by the ESB's chief executive, Pdraig McManus, speaking in March 2011: "It's an international commodity you know, Corrib, we are not going to get Corrib Gas cheaper than gas from anywhere else... So we'll pay the same price as getting it from the UK."⁹

In fact, Irish consumers are likely to pay more for gas from Corrib than they pay for imported gas, according to the Commission for Energy Regulation in a July 2011 report.¹⁰

CONCLUSION

Exaggerated fears over "security of supply" have been used in defence of Ireland's giveaway licensing terms. While energy security is a hugely important issue for Ireland, our licensing terms serve to **weaken** our security of supply. They allow and even encourage companies to export our resources, either via Ireland or directly from offshore fields. In future decades, when global supply issues are more acute, Ireland may have fewer resources as a result of this export.

Myth Further oil and gas discoveries off the Irish coast will lead to a thriving industry here, with jobs, infrastructure, investment and a secure domestic supply of gas and oil. This is a reason to maintain Ireland's "attractive" licensing terms.

Reality Ireland's licensing terms do not stipulate that oil or gas found in Irish waters or in Ireland must be supplied to the Irish market. Nor do they require that the oil or gas be brought ashore in Ireland. In some cases, oil companies with prospects in Irish waters have already stated their intention to export oil directly from the field. In other words, they will transfer the oil to tankers at the rig and ship it to a refinery overseas. This will result in **no economic benefits to Ireland: no onshore**

jobs, no infrastructure and no supply to the Irish market.

The Dalkey Prospect off Dublin, operated by Tony O'Reilly's company, Providence Resources, is a case in point. The company plans to drill 6 km from Dalkey Island (pictured): in environmental terms this project is dangerously close to the shore – a spill could reach the shores of Dublin in one hour, according to an Oil Spill Contingency Plan submitted by Providence to the Dept of the Environment (www.environ.ie). However, since Providence has said it would probably export directly from the rig, in terms of "inward investment", the project might as well be off the coast of Malaysia.

The economic spin-offs of exploration and production in Irish waters will benefit countries other than Ireland.

For more, see 'Security of supply', page 25.



Ireland sources most of its natural gas from the North Sea. Bord Gais bids for this gas against buyers of gas in other countries and thus pays the going rate on the international market. Remarkably, the same will apply to gas and oil extracted from Irish gas fields unless Ireland's licensing terms are renegotiated. If, at some future date, an international crisis leads to a shortage of gas or oil on international markets, the price of these commodities will rise. In such a situation, Ireland's gas and oil fields will be of no benefit to the country, because the price will be determined by international demand.

In summary, Ireland's licensing terms for oil and gas exploration, which remain largely unchanged since they were introduced by

Ray Burke and Bertie Ahern two decades ago, serve to weaken Ireland's security of gas and oil supply, not strengthen it.

Footnotes

1. SEAI, 2010, 'Energy in Ireland, 1990-2009', Dublin
2. www.bordgais.ie/corporate
3. ESRI, 'Review of Irish Energy Policy', April 2011, p.41
4. www.irishoilandgas.com
5. www.irishtimes.com/newspaper/finance/2007/0706/1183410373036.html
6. www.irishoilandgas.com
7. Extensive information about Floating LNG technology can be found via a Google search
8. Sunday Times (Ireland), July 3rd, 2011, p.17
9. Speaking on 'Today with Pat Kenny'
10. Sunday Business Post, 'Corrib Gas could push up prices', July 10th, 2011

How we got here

We have seen that Ireland's licensing terms for oil and gas exploration are among the worst in the world, from the point of view of benefit to the State. This was not always the case. How did this situation come about?

Marathon Oil discovered gas off Kinsale, Co. Cork in 1971. Gas was extracted from the field under a one-off deal made in 1973 between the Government and the company. Senior civil servants argued that the deal was weighted too heavily in favour of the industry¹. There was a public outcry which became an issue in the 1973 general election. A Resources Protection Campaign was set up to apply further pressure. The Minister for Industry and Commerce in the new government, Labour's Justin Keating, introduced new terms, influenced by the Norway's hugely successful creation of an indigenous oil and gas industry. The 1975 terms included:

- a 50% maximum State stake in any commercial find,
- production royalties of 8% to 16% and
- production bonuses on significant finds.
- The standard corporation tax of 50% was also applied.

Companies were required to drill at least one exploratory well within three years and to surrender 50% of the original licensed area they were granted within four years. Crucially, the State would gain a "carried interest" by

taking a share of the project after a discovery and thus would not have to bear the costs of exploration.

The terms envisaged the formation of a State oil company similar to Norway's Statoil, if significant finds were made. They also ensured that the Government would have full access to the exploration data, allowing it to make independent decisions about the likely success of any potential development.

When oil had been discovered in Norway in the 1960s, the energy companies had played down the find². However, the Norwegian state drove a tough bargain with them, taking up to 90% of the profits, setting up Statoil and forcing the industry to share its knowledge and technical expertise with Statoil. See page 8.

The Fine Gael-Labour coalition lost power in 1977. Keating's successor, Fianna Fáil's Des O'Malley, was ideologically opposed to creating a State-owned oil company.³ However, due to the international oil crisis, he reluctantly set up the Irish National Petroleum Corporation (INPC) in 1979, under pressure from a number of oil-producing countries which would only sell their oil to a state company.

The INPC was precluded from engaging in exploration or production. As a result the Irish State did not develop expertise as the Norwegians had done. Instead, the Petroleum Affairs Division (PAD) of the Department of



Fracking in Ireland

Hydraulic fracturing, or 'fracking', is an industrial process used to exploit 'unconventional gas plays', areas where methane gas is distributed throughout the rock layer rather than concentrated in one reservoir. Fracking involves pumping massive volumes of water (3 to 5 million gallons plus per well), mixed with sand and chemicals, under huge pressure, to open up natural fissures in the gas-bearing rock and allow the gas to be forced up the well to the surface to be harvested.

While fracking has been around since the late 1940s, recent technological advances have led to a huge surge in shale gas exploitation since 2007. The Bush regime in the US exempted fracking from clean air and water legislation, which allowed it to proliferate with a minimal of environmental regulation. Fracking has caused environmental degradation and pollution of water supplies across the US. A 2011 study by researchers at Duke University in the US firmly establishes the connection between the fracking process and water contamination*.

Three companies have been given preliminary authorisations to explore for shale gas in parts of 12 Irish counties, including Cavan, Leitrim, Roscommon, Sligo, Fermanagh and Clare. Five Irish local authorities have voted to ban fracking, but the decision

on whether or not to allow it will rest with Government ministers and the Environmental Protection Agency.

There are numerous concerns surrounding this process, including:

- **Environmental damage, air and water pollution, in particular drinking water supply;**
- **Excessive water usage;**
- **Industrialisation of a rural landscape with drilling pads on intersections of a 2 km grid;**
- **Infrastructure risk caused by a massive increase in HGV traffic and resultant damage to roads and increased risk of accidents;**
- **Long term human and animal health risks;**
- **Delaying of the transition to a low-carbon economy;**
- **Economic risks, another short term construction boom, followed by a massive bill to the taxpayer to clean up the environmental damage, while ownership of the gas is transferred to private companies with a negligible financial return to the State;**
- **Risks to Ireland's tourism industry and to Ireland's reputation as a clean, green food producer.**

In May, a preliminary study into fracking in Ireland by the University of Aberdeen for the EPA identified potential risks to groundwater purity and risks of tremors or earthquakes.

* www.pnas.org/content/early/2011/05/02/1100682108.full.pdf



Justin Keating's 1975 terms were subsequently dismantled by Ray Burke and Bertie Ahern

Industry and Commerce became the ad hoc administrative centre for the oil and gas industry in Ireland.⁴ That industry spent heavily to lobby Irish politicians.

Through the 1970s and 1980s, oil and gas finds in Irish waters were regarded as commercially unviable. Industry sources told the media there were no big fields. However, people in the industry knew that ‘uneconomic’ or ‘sub-economic’ fields can become economic, through improvements in technology and rising energy prices. It now appears that substantial oil and gas finds will be made in Irish waters, as detailed elsewhere in this booklet. But when this happens, the finds will be subject to the legislation introduced 20 years ago.

The substantial changes to the 1975 terms were made by energy minister Ray Burke in 1987 and finance minister Bertie Ahern in 1992. The new fiscal terms included:

- The abolition of royalty payments;
- A 100% tax write-off against profits on capital expenditure for exploration, development and production extending back 25 years before the start of production;
- The abolition of all other State participation in oil and gas development.

Questions were raised by several TDs in 1987 about the new terms, described by Labour’s Dick Spring as “an act of economic treason”. Burke defended the changes, saying existing licensing terms were unattractive to the exploration companies and said he was ‘gravely concerned’ that exploration might disappear from Irish waters altogether.

In 2005 Ray Burke was convicted and jailed on charges arising from political corruption in office and was found to have received a number of corrupt payments in the late 1980s. While there is no public evidence that he received payments from energy companies, he did negotiate personally with company executives prior to his introduction of the 1987 terms, at times taking the unusual step of meeting directly with company representatives in the absence of his department officials – and against the advice of those officials.⁵

In 1992, minister for finance Bertie Ahern introduced new terms within the 1992 Fi-

nance Act, cutting oil industry corporation tax from 50% to 25%. The terms provide for oil and gas to be delivered at ‘market prices’, unlike the 1975 terms, which allowed prior approval by the Minister of all contracts for the sale of gas, and gave the Minister powers to require delivery of petroleum to specified purchasers to satisfy national requirements. The 1975 terms also gave the Minister control, during emergencies, over supplies of petroleum. These safeguards were removed with the onset of the 1992 terms. This means that the State will have to pay full price for all oil and gas from its own waters, and will have no control over supply, even in emergencies.

Moreover, the new licences allow companies to hold onto leases on their licensed territory for up to 30 years in the event of a commercial find. Companies are entitled to rely on their own data and their own plans in assessing commerciality, and the Minister must grant the lease if requested.⁶

With the discovery of the Corrib gas field by Enterprise Oil, the industry intensified its lobbying. Enterprise bought a table at the Fianna Fáil tent at the Galway Races and made large contributions to that party. Fianna Fáil Minister for Marine and Natural Resources Michael Woods supported Enterprise’s decision not to hire Irish workers (who were unionised) on its Petrolia rig, overturning an earlier minister’s insistence that Enterprise hire Irish workers or lose tax breaks.

In this way the energy companies gained control over exploration data, petroleum pricing and supply, and even whether to sell the oil and gas in Ireland or to export it. Ireland’s oil and gas reserves have been effectively ceded to energy corporations into the distant future – or until such time as the Irish people reclaim their property and renegotiate the terms, as has been done in many other countries.

Footnotes

¹ Centre For Public Inquiry, 2005, page 51

² Michael McCaughan, 2008, p.69

³ Centre For Public Inquiry, 2005, page 54

⁴ Centre For Public Inquiry, 2005, page 56

⁵ Centre For Public Inquiry, 2005, page 58

⁶ Centre For Public Inquiry, 2005, page 64



Corrib Gas: a decade of resistance

INTRODUCTION

We have seen how the oil lobby has created a perception that Ireland needs to find and extract its oil and gas reserves as quickly as possible; and how this urgency has been paradoxically used to bring about licensing terms that are overwhelmingly to the advantage of private companies, leaving Ireland with a tiny share of revenue, no security of supply and few benefits. This perceived urgency over energy supplies has also played a major and damaging role in the Corrib Gas saga, allowing Shell and the Government to falsely portray the project as being crucial to Ireland’s national interest.

More importantly, the Corrib Gas project is a shocking illustration of how the State’s flawed approach to managing its natural resources has a devastating impact on people and the environment. Ireland’s excessively pro-corporate approach has resulted in all the powers of

the State being used to force an inland refinery and ultra-high pressure raw gas pipeline onto an unwilling community to facilitate the removal of a national resource for the benefit of a private, profit-making corporation. The powers used by the State include the introduction of Compulsory Acquisition Orders (CAOs) for farmers’ land on behalf of private companies and the deployment of Gardaí and the Irish Navy to suppress opposition.

The story of the Corrib Gas project needs to be told also because it is an inspiring example of how committed people can resist a powerful, but unjust, ‘development’ process that threatens their well-being and lives. In their non-cooperation with Shell and the State, the communities most affected by the Corrib project have exposed inappropriate links between big business and government, and the violence to which this alliance is prepared to resort, attracting support from around the

world and forcing both State and developer to alter their plans. Their research has also created and informed a national debate on oil and gas management.

Residents of northwest Mayo were initially motivated to object to the inland refinery project due to the threat it posed to their health and safety and to the environment. This started a long process of research by several local people, who discovered that, although they were being required to make sacrifices, including facing new risks, supposedly for the common good, almost no benefit would accrue to Ireland from the gas that would pass at high pressure under their fields and roads. This is why the aims of the Shell to Sea campaign include the renegotiation of Ireland's terms.

HOPE TURNS TO FEAR

In 1996, Enterprise Energy discovered gas in the Corrib field, 83km off the Mayo coast. By 1999, the company was proposing to bring the gas ashore near the tiny village of Rosspoint, on the shores of Sruwaddacon Estuary, an EU Special Area of Conservation (SAC). Local people initially greeted the news with optimism. A remote area of northwest Mayo, plagued by emigration and unemployment, might now enjoy jobs and lasting infrastructure.

However, the communities in the area of the proposed pipeline and gas refinery soon became very alarmed when it transpired that what the company was proposing was a cost-saving but highly unorthodox method of bringing the gas ashore. Raw, odourless gas would be pumped at extremely high pressure from the well head directly to a refinery 9km inland. Gas is normally processed and odourised offshore or at the shore, before reaching residential areas. Residents were facing the prospect of an "upstream" production pipeline, carrying raw gas, passing close to their homes. Upstream pipelines, which contain a volatile mix of corrosive chemical compounds, are normally only found under the sea or in uninhabited areas. Local people were also concerned that the project was being rushed through without any consultation or dialogue. People were not reassured to

learn of the Pecos River incident, near Carlsbad in New Mexico, USA in August 2000, when seven adults and five children had been burned to death. They had been camping more than 200 metres from the site of the explosion, which occurred in a raw gas pipeline, and was determined by investigators to be caused by corrosive chemicals in the raw gas, poor maintenance by the company and lax oversight by regulators.

THE 'WRONG SITE'

In 2000, local residents took the first steps in what would become a long and difficult but inspiring campaign when they filed planning objections with Mayo County Council to the proposed inland refinery at Bellanaboy. Among their many concerns were the proposed location of this colossal refinery in the catchment area of Carrowmore Lake, which supplies drinking water to 10,000 people; and also the fact that the raw gas pipeline would pass close to houses and under roads and farmland. Despite numerous and well-researched objections, the Council granted planning permission in 2001, but this was appealed and an oral hearing was held by An Bord Pleanála in February 2002. Observers were surprised by the depth of technical knowledge displayed by local people who testified to the hearing.¹

The board's senior planning inspector, Kevin Moore rejected permission for the refinery in 2003, concluding: **"From a strategic planning perspective this is the wrong site. From the perspective of Government policy which seeks to foster regional development, this is the wrong site; from the perspective of minimising environmental impact, this is the wrong site; and consequently, from the perspective of sustainable development, this is the wrong site."**²

Enterprise Energy Ireland had been acquired by Royal Dutch Shell in 2002, which meant the project would now be developed by Shell E&P Ireland. Shell's appalling safety and environmental record globally and the human rights abuses that have taken place around its projects increased local people's fears.



An anti-Shell protestor is taken to an ambulance after being assaulted by Gardaí close to Bellanaboy, Co. Mayo in November 2006

Human rights and the policing of Corrib

Several international human rights organisations have raised the alarm about how both Gardaí and Shell's private security firm IRMS have dealt with protests around the Corrib Gas project. Front Line – the International Foundation for the Protection of Human Rights Defenders – published a report in 2010 by barrister Brian Barrington which was highly critical of how the protests were being policed. Among its findings and recommendations were:

- There was "an overall pattern of failure [by Gardaí] to take issues raised by protesters and residents seriously – even when they have the law on their side," for example, where works by Shell were not authorised under law.
- Pat O'Donnell's trawler appeared to have been detained by Gardaí unlawfully in order to remove him from the offshore pipeline route.
- The assault on Willie Corduff in Shell's compound at Glengad in April 2009 should be reinvestigated by Gardaí based outside Mayo. The report is at: www.frontlinedefenders.org/files/en/corrib_gas_report.pdf

In February 2007, the San Francisco-based Global Community Monitor published a report stating: "the behaviour of Gardaí in Mayo is endangering the safety of people participating in non-violent protests as well as consistently infringing on their civil rights. The report is at: www.gcmmonitor.org/article.php?id=598

In January 2010, former Garda sergeant and human rights observer Benny McCabe, reporting to by justice and peace organisation Afri, said that policing of Corrib had been an "anathema to the spirit of community policing". He said: "Gardaí have been acting with impunity in north Mayo." He said this was borne out by the Garda Ombudsman's statement late in 2009 that 75% of complaints made about policing aspects of the Corrib gas project were admitted for investigation. (*Irish Times*, 7th January 2010)

In May 2010, Amnesty International and Front Line appointed a full-time human rights monitor for the Corrib gas project.

Campaigners, politicians and advocacy groups have repeatedly called for an independent international inquiry into the policing of the Corrib Gas project.

Opinion polls and the Corrib Gas project

Shell and some of its allies have sought to portray the campaign against its inland refinery as representing a minority within the local community and within Co. Mayo. In reality, every opinion poll conducted in Co. Mayo on the issue has found a majority in favour of the campaign's demands that the gas be processed before coming ashore. The following four polls were all conducted throughout Co. Mayo:

- TNS-MRBI poll for TG4, September 2006: 61% feel the gas should be processed at sea; 23% felt it should be processed at Bellanaboy.

- Public Opinion Ltd. poll for Mayo Advertiser, October 2006: 45% want the refinery located offshore; 15% support Shell's proposal (40% have no opinion).

- Red C poll for RTE's Prime Time and Irish Independent, November 2006: 44% support offshore processing; 29% support the Bellanaboy option; 12% wanted the project abandoned.

- Red C poll for Western People, March 2007: 55% support offshore processing; 34% support Bellanaboy option; 7% wanted the project abandoned.

Crucially, in the parish of Kilcommon, where the inland refinery and high pressure pipeline are due to be located, opposition has always been very strong. Out of an adult population of around 1,200 in the parish, 850 signed a petition in September 2006 opposing the inland refinery.

Following An Bord Pleanála's rejection, Shell executives met with Taoiseach Bertie Ahern, ministers and senior civil servants. Within a week, company executives were granted a meeting with senior Bord Pleanála members, including the chairman. The company was encouraged to re-apply, which it duly did later in 2003. This time around – with a different inspector presiding – the board granted planning permission in October 2004.³ Five years later, Shell would admit that it specifically asked An Bord Pleanála not to assign Kevin Moore. The board confirmed it had received the request in writing, but stated that its decision not to assign Moore to the appeal was not influenced by Shell's request.⁴

RESISTANCE BUILDS

More and more people in the affected area joined the opposition to this experimental inland refinery. They wanted Shell to process the gas at a shallow platform off the coast, before piping it ashore, as is common practice for gas production around the world. To this end, the campaign name Shell to Sea was adopted on 27th January 2005.

Within the community, many people's experiences at the hands of the oil companies and officials were causing them to lose faith in the independence of the planning process and in the willingness and ability of the structures of State to protect them and their families. For several months, landowners on the pipeline route obstructed Shell staff from entering their land. In April 2005, the High Court granted Shell an injunction against these landowners, compelling them to allow Shell access to their fields. Four landowners ignored the injunction: Willie Corduff, Bríd McGarry, Philip McGrath and Brendan Philbin. In June, Shell asked the High Court to take further action. On June 29th, 2005, the three men (but not Bríd McGarry) were sent to prison, along with two other local residents named by Shell, Micheál Ó Seighin and Vincent McGrath.

The jailing of the "Rosspport Five" sparked public outrage and a large national campaign

to seek their release. In north Mayo, resistance escalated, with local people engaging in civil disobedience. They blocked the entrance to the refinery site and prevented any work from taking place there for more than a year. A solidarity camp was established on the pipeline route as a base for supporters visiting the area. Rosspport Solidarity Camp still plays a vital role in the local campaign.

SHELL FACES POLITICAL PRESSURE

As the five Mayo men sat in prison during the summer of 2005, public meetings and rallies were held across Ireland. The growing campaign to release the men brought to national attention what was happening in the north-west corner of Mayo: namely, that a powerful multinational company, with the full support of the Government, was attempting to force through an experimental, cost-saving method of bringing gas ashore that would pose a major threat to the health and safety of the receiving community and to the environment.

The Shell to Sea campaign also raised public awareness about the fact that Shell and its partners would own 100 per cent of the gas they extracted from this Irish gas field, would pay no royalties to the Irish State and could sell the gas to Irish consumers at the full market rate.

After 94 days in prison, the Rosspport Five were released without making the commitments to facilitate Shell that had been demanded of them by the court. The intense public protest and political pressure had led to Shell applying to the High Court to have the injunction rescinded.

PROTESTS AND POLICE BRUTALITY

Despite the men's release, hundreds of local people maintained a constant picket at the refinery site in Bellanaboy. After 15 months, a huge Garda contingent was bussed in and the blockade was broken by force with many injuries in October 2006. The protestors continued to mount pickets at the gates of the site, attempting to prevent trucks from entering and leaving. Gardai dealt with the protests

'Agencies of the State got involved on the side of the developer, rather than on the side of the community. Given that alternative models were available in other countries, it was scandalous that we proceeded as we did.'

Michael D Higgins, speaking in 2010 about the Corrib Gas project

violently, baton charging protestors, punching and kicking them, and throwing them in ditches. A particular feature of the policing of these protests was personalised verbal abuse and threats directed by many Gardai at individuals who were perceived to be taking leadership roles in the protest, and at their family members.

Supporters from around the country travelled to Erris to show solidarity, in response to calls from the local community. The policing of protests drew heavy criticism from human rights organisations. In particular, there was concern over the Garda's "no-arrest" policy, which was outlined by Supt Joe Gannon in the Garda Review (November 2006 issue): "There were no arrests. That was part of our strategy: we did not want to facilitate anyone down there with a route to martyrdom." Instead of being arrested, people engaging in civil disobedience were physically assaulted by Gardaí, threatened or intimidated. A report by the San Francisco-based Global Community Monitor, which visited the area in February 2007, found there was "excessive physical force by gardaí against peaceful protestors who were prepared to be arrested, which resulted in serious injury."

International support culminated in the awarding of the world's most prestigious environmental honour, the Goldman Environmental Prize, to one of the Rosspport Five, Willie

Corduff, in April 2007. The Irish government made no public reference to Corduff's award.

NAVY AND GARDAÍ CLEAR A PATH FOR THE PIPELINE

In the summer of 2008, Shell made the first of several attempts to lay its offshore pipeline from the landfall site at Glengad beach to the offshore gas field. An army of IRMS security staff closed off sections of the beach.

Members of the Rosspoint Solidarity Camp took to sea in kayaks and obstructed the dredging of the trench for the pipe. When the world's largest pipe-laying vessel, the *Solitaire*, arrived in Broadhaven Bay, escorted by Irish navy vessels, fishermen prepared to resist its work and retired local school principal Maura Harrington began a hunger strike. Respected local fisherman Pat O'Donnell was twice ar-

rested at sea while lawfully going about his work. After 10 days the *Solitaire* left Broadhaven Bay, citing damage to its crane. Maura Harrington ended her hunger strike.

In March 2009, Maura Harrington was jailed for 28 days for a public order incident in June 2007. A large group of Gardaí had forced their way onto private land at Pollathomas Pier to erect a temporary office for Shell, resulting in injuries to 20 local people.

In April 2009, Shell again erected the compound at Glengad beach, without planning permission. Local resistance was as determined as ever. Willie Corduff climbed under a truck and refused to move. During the night, a group of eight masked men emerged from the Shell compound and viciously assaulted him. Corduff lost consciousness and required hospitalisation.

At a public meeting a week later, attended by ministers Eamon Ryan and Eamon Ó Cuív, fisherman Pat O'Donnell voiced fears about what IRMS staff might do to him at sea: "These mercenaries that have been training for the last two months in Killala Bay: am I going to meet them in balaclavas like Willie Corduff met his attackers?" Six weeks later, O'Donnell's trawler, the *Iona Isle*, was boarded by four masked men. They held O'Donnell and his crewman at gunpoint and scuttled the boat. The two fishermen escaped in a life-raft.

The *Solitaire's* return in June 2009 was again greeted by intensive direct action by fishermen and kayakers. A 200-strong force of IRMS staff was backed up by 300 Gardaí, several navy gunboats and a Garda helicopter. Pat O'Donnell and his son Jonathan were both arrested at sea, their vessels commandeered and held until the *Solitaire* had finished its work.

'UNACCEPTABLE' ON SAFETY GROUNDS

In November 2009 An Bord Pleanála rejected the revised route for the onshore pipeline, concluding that more than two-thirds of the route was 'unacceptable' on safety grounds. This ruling vindicated the safety concerns of local campaigners, which had been ridiculed for years by Shell and the Government. How-

ever, the board said it would provisionally grant permission to Shell if the proposal was altered and it suggested that the company tunnel under Sruwaddacon Estuary. Also in November, the Garda Síochána Ombudsman Commission (GSOC) reported that policing of Corrib had been the single greatest cause of complaints to the agency.

MORE CAMPAIGNERS JAILED

In February 2010 Pat O'Donnell was convicted on minor public order charges relating to protests. He was jailed for seven months. This followed a series of shorter detentions on minor pretexts throughout 2008 and 2009, while working at sea. A 2010 report by barrister Brian Barrington for human rights organisation Front Line found that Mr O'Donnell's boat had been detained by Gardaí "unlawfully" and with "improper motive" to stop him from opposing Shell's pipe laying in June 2009.⁵

In March 2010, another prominent Shell to Sea campaigner, Niall Harnett, was similarly convicted of minor public order offences and received a five-and-a-half month jail term.

THE 'KILL ZONE'

In May 2010, Shell submitted a revised application to An Bord Pleanála, involving a tunnel under Sruwaddacon Estuary. The company noted the nearest dwelling was now 234 metres from the pipeline. The previous oral hearing had heard that anyone within a 230-metre "kill zone" was likely to burn spontaneously within 30 seconds should a pipeline rupture occur. However, Cmdt Patrick Boyle, a retired army bomb disposal officer, had testified that all occupied buildings should be at least 500 metres from the pipeline route. Pollathomas primary school lies within a 230 metre radius.

RESISTANCE CONTINUES

Following yet another oral hearing in August 2010, An Bord Pleanála granted Shell permission in January 2011 for its revised onshore pipeline route. This followed lobbying from the Department of Energy and Natural Resources to relax safety criteria. Prepara-

tory work on the tunnel began in 2011 and is scheduled to take more than two years to complete. There will be up to 472 truck movements per day along roads so narrow that two cars can barely pass each other. In the spring of 2012, Gardaí began effectively leaving the policing to IRMS. The company's civilian staff has been acting as a *de facto* police force, closing roads and illegally detaining protesters.

As the campaign enters its second decade, resistance is as strong as ever. Support continues to flow in from all over Ireland and internationally. The thousands of inspirational experiences of the campaign and the links forged are too numerous to describe even in a much thicker volume than this one. Norwegian trade unionists, veterans of the Bolivian 'gas war' and 'water war', and Nigerian anti-Shell campaigners have all visited Erris.

At the time of writing, the future of the Corrib Gas project was still uncertain. The outcome will be hugely significant in terms of the precedent it sets for the extraction and production of gas and oil from other fields in Ireland and for the role of community consent in such projects. Accordingly, campaigners have maintained a long, hard struggle, while the State has used all its powers to force through this disastrous project, so that Ireland can demonstrate to big business that its interests will take precedence over those of the receiving community.

Regardless of the outcome, the grassroots resistance to this inland refinery has won many victories along the way. A consortium of companies, with the collusion of the Irish State, attempted to foist an experimental project on a remote community. The result is that the project will be delayed by more than 10 years. It is now unthinkable that a similar approach would be taken in future.

Footnotes

1. McCaughan, 2008, p.35
2. Centre for Public Inquiry, 2005, p.14
3. Centre for Public Inquiry, 2005, pp.40-42
4. Irish Times, 10 October 2008, 'Shell asked for named inspector not to hear appeal'
5. Front Line Human Rights Defenders, 2010, p.51

Myth The Corrib Gas field – and future gas discoveries in Irish territory – will bring down domestic gas prices.

Reality Ireland's licensing terms do not stipulate any price reductions for Irish consumers. Companies who find oil or gas in Irish waters (e.g. Corrib) or in Ireland (e.g. fracking in the North West) can sell it to Bord Gais at the international market rate. This means that if the price of gas internationally were to double in the next 10 years, then the price Irish consumers pay for the gas from Corrib, or other Irish discoveries, would also double.

Bizarrely, even without an international increase, Corrib coming ashore is "very likely" to lead to an immediate increase in the price of gas for Irish consumers, according to the Commission for Energy Regulation in a July 2011 report. *www.cer.ie Reported in Sunday Business Post, July 10th, 2011*



Conclusion

Ireland's system of managing its oil and gas resources is dysfunctional; out of step with the rest of the world; and heavily skewed in favour of private companies to the detriment of Ireland's public interest. Ireland's only means of extracting revenue from oil or gas – its 25% tax on profits – puts us at the bottom of the international league table, while extraordinarily generous tax write-offs mean that the State 'take' as a percentage of revenue is likely to be far lower: as low as 7% according to figures extrapolated from a report commissioned by Shell.

The Irish Government's policy – maintaining these "attractive" terms to encourage exploration and thereby create jobs, investment and a domestic supply of oil and gas – is destined to fail, since the companies are not obliged to supply the Irish market, to land the resources in Ireland or to use any Irish staff or services. Not only ownership, but also control of our resources is transferred in full to private companies, some of whom have stated their intention to export oil directly from our offshore fields.

Where a company does decide to pipe gas ashore in Ireland, or where the resource is found onshore (such as the Lough Allen Basin), the communities affected by such a project have no involvement in decisions about the project. The experience of the Corrib Gas project illustrates the hugely damaging consequences of this.

Ireland's tradition of "light" regulation of business – which led to the 2008 banking crisis and economic collapse – is also characteristic of the State's interaction with oil companies. This is deeply worrying, in light of such incidents as the Deepwater Horizon disaster in the Gulf of Mexico in 2010 (involving a rig built by Transocean Ltd, which built the Corrib Gas rig.)

Considering the role of fossil fuels in exacerbating climate change, it should be the people of Ireland rather than private corporations who decide whether and how our hydrocarbon resources are used.

WHERE TO FROM HERE?

This is an information booklet and as such does not advocate a specific course of action or a specific set of licensing terms. However, there is clearly an urgent need for an informed

debate about how the Government manages our oil and gas resources on our behalf.

The debate needs to include consideration of how we want to use fossil fuels, in the light of their role in causing runaway climate change.

A moratorium on exploration licences could be introduced pending this debate.

The conclusion (on page 25) to the section 'Options for Ireland' outlines some of the options available.

In brief, our licensing system could be overhauled to give Ireland:

- a greater share in the revenue generated from any extraction of our oil and gas;
- involvement in development and production of discovered fields, resulting in expertise and infrastructure on the part of the State (e.g. a State energy company);
- greater control over its resources, which would strengthen Ireland's security of supply.

Since these resources belong to Ireland in the first place, it would be reasonable for the State to step in and take a share in oil and gas fields once they have been discovered, without necessarily having shared in the cost of exploration. The size of the State's share could be based on a sliding scale dictated by the size of the field.

The above changes could be made by overhauling our licensing system before any more licences are issued. Crucially, the Government could also revisit licences that have already been issued. Governments around the world have been waking up to the reality that natural resources are sovereign assets and that revisiting bad deals is entirely within their rights. Other countries that have asserted their rights in this way have not been blacklisted by multinational corporations or financial markets – after furious condemnation of the actions of the state, the companies quietly came back to the table to negotiate a reduced – but still profitable – deal.

Even if it were true that changing Ireland's licensing terms – both retrospectively and for future licences – would scare companies away, using this argument to justify our giveaway li-

'If you have a windfall like oil and gas, and it comes before you are ready to use it prudently, you squander it. ... I am glad the oil and gas is still there. I am glad it is not gone.'

The late Justin Keating, former minister who introduced the 1975 licensing terms, interviewed by film-maker Risteard Ó Domhnaill in 2008

censing terms amounts to saying: "the best deal we can get is this very bad deal". If that were the case, the sensible course of action for Ireland would be to leave the resources under the ground. In years to come they will be more valuable; finding and extracting them will be easier, due to technological advances; they will be more scarce globally.

Work on the Corrib Gas project could be halted pending an independent review of the entire project. Any exploitation of the Corrib gas field should be done in a safe way that will not expose the local community to unnecessary health, safety and environmental risks. An independent international inquiry is clearly needed into the policing of protests around Corrib.

Ireland could use increased revenue from its natural resources to fund the transition to renewable energy.

Ireland possesses valuable mineral resources. Extracting them poses major risks to the environment and to affected communities and contributes to climate change. There are a number of compelling arguments for leaving these resources in the ground, at least in the short term. If the Irish government is to permit private corporations to extract these fossil fuels and sell them on the international market, it should be able to guarantee significant and tangible benefits for people in Ireland. Under our current licensing regime, it cannot.

Bibliography

Recommended reading in bold

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National Shell to Sea website:
www.shelltosea.com

www.shelltosea.com/booklet

The tables and map at the centre of the booklet are accompanied by an extensive spreadsheet, containing sources and other information, as well as a larger version of the map, all at the above address. These will be updated on an ongoing basis and are intended as a resource for researchers, campaigners and journalists.

Links/resources

Department of Communications, Energy and Natural Resources (DCENR)
www.dcenr.ie

Petroleum Affairs Division (of DCENR):
www.pad.ie

Shell to Sea campaign
www.shelltosea.com

Dublin Shell to Sea campaign
www.dublinshelltosea.com

ColmRapple.com
Website of economist Colm Rapple; includes an archive of his articles about 'The great oil and gas giveaway'
<http://colmrapple.com/>

Irish Oil and Gas
Information and analysis
www.irishoilandgas.com

Rosspoint Solidarity Camp
www.rosspointsolidaritycamp.org

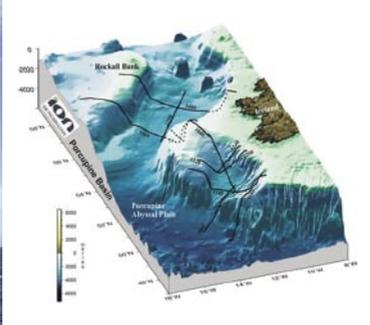
Corrib Gas pipeline
Site maintained by Shell E&P Ireland
<http://www.corribgaspipeline.ie/>

Royal Dutch Shell
A site that scrutinises the operations of Shell's global operations
<http://royaldutchshellplc.com>

Norwegian Petroleum Directorate (NPD)
(English language version of website); excellent facts and figures about how Norway manages its oil and gas:
<http://www.npd.no/en/>

Indymedia Ireland
Non-corporate media coverage of issues such as Corrib Gas
www.indymedia.ie

Fracking information:
frackingfreeireland.org
goodenergiesalliance.com
nofrackingireland.wordpress.com
frackingresearch.org



Debate about Ireland's oil and gas resources and how the Government should manage them is poorly informed and is hampered by wildly differing claims. This has led to confusion, not just among the public, but also politicians and journalists.

This booklet seeks to provide an informative guide to these issues:

- What is the extent of exploration in Ireland's offshore and how much oil and gas is estimated to be under Irish territory?
- Is it true that Ireland's licensing terms represent a 'giveaway'?
- How did our unusual terms come about?
- What financial benefit, if any, will Ireland enjoy from exploitation of these resources?
- How do Ireland's terms compare to those in other oil/gas-producing countries?
- Will the production of new oil and gas fields improve Ireland's 'security of supply'?
- What models in other countries could Ireland learn from and can Ireland re-draft its legislation covering this area?
- In light of the link between the burning of fossil fuels and runaway climate change, does our current legislation give Ireland any control over the rate at which its oil and gas is extracted and consumed?