



Information letter for those to whom fracking matters and (some) updates on the website FFI
contact: ineke@frackingfreeireland.org visit: www.frackingfreeireland.org

Thanks to all for the contribution

**This newsletter starts with make-you cry-news, follows and ends with: make-you-happy-news
Full report of the public petition at the end of the news letter (page 13)**

FOR YOUR DIARY – UPCOMING EVENTS

We are manning a stand in **Sligo** in the week before **Christmas**. It will be on O Connell Street, the main thoroughfare, outside McGarrigles Pub, (the manager of the pub is providing a canopy, lights, and table) and we will have literature on fracking, badges, and info stand, and letters to Pat Rabbitte, and a special festive card for people to sign and send to their own TD's, (basically, instead of "Noel, Noel, Noel, Noel", it will read, "No wells, No Wells, No Wells, No Wells" (with a gas flare instead of a star. If anyone would like to volunteer a few hours, or add some material, stickers, etc, please get in touch with Northwest Network against Fracking at youthmardingo@gmail.com or phone Meg on 0863840254.
peace everyone

Launching flags on Saturday

Love Leitrim Group Cordially invites
.....
To the Prize giving
Presentation to the winners at 2.00pm
At Manorhamilton Library, Main St.
Manorhamilton
On Saturday 10th December 2011
contact:Liz lizejbyrne@eircom.net

REQUEST FROM MAJELLA – 3-12-2011

Pat McKiernan, Consultant Paediatrician at Birmingham Children's Hospital, originally from Kinawley, County Fermanagh has spoken out in the Irish News today Dec 3.

The title of the article is 'Serious concerns' over safety of fracking raised.

"This was done without a health impact assessment, an environmental assessment or any meaningful public consultation. My private research into the technology to be used, hydraulic fracturing or 'fracking' leads me to have very serious concerns regarding its safety and implications for the community. I think a wider debate needs to be held about the health and ecological implications of this technique before it is allowed to proceed any further."

We're working on a couple of other Consultants.

1. Has anyone precise details of what the DETI have claimed to be the economic benefit to NI and over what period.
2. What claim precisely are they making about the number of jobs and over what period? What sort of jobs? Skilled, low-level? Where will these employees be drawn from? Shipped in or local?
3. I'm talking to a lobbyist who has the ear of Alasdair McDonnell & Basil McCrea and he says jobs trump the environment.
4. I know the Tyndall report doesn't put the economic benefit too high on its list but I don't know the details.
5. What I want is a pre-prepared solid argument. One we could use for any politician. Has anyone done this by now?

Majella Mccarron majella.mccarron@gmail.com

MAKE-YOU-CRY-NEWS

GOLDMINING - another threat for our environment



Goldmine at Cavanacaw Omagh , this is what they did in the Sperrins when looking for gold
<http://www.geograph.ie/photo/310318>

Shocking isn't it. This is less than 2km outside Omagh, 30min walk from my family home!
(Michael Mc Evoy, mickeymcevoy@yahoo.com)

Is that Grosvenor? They got a prospecting licence for diamonds and gold in Inishowen. (Charlie Williams charlie2williams@gmail.com)

<http://inishindie.blogspot.com/2010/04/inishowen-environmental-group-meeting.html>

No, the company is:
<http://www.galantas.com/investors/the-company/>

CALL/COMMENT FROM BARRYN
barrymahonb@gmail.com (4-12-2011)

Full article:
http://www.nytimes.com/2011/12/04/us/politics/dan-boren-oklahoma-lawmaker-shares-in-gas-field-bounty.html?_r=3&nl=todaysheadlines&emc=tha2 (Web FFI: official reports/research/articles)

In todays New York Times - a paper that would not be reckoned to be on the side of big oil, etc., there is a piece on the bounty created by fracking in Oklahoma -

In the article they follow the fortunes of a Congressman Dan Boren and the effect of fracking on his constituents and constituency. You would say he is a typical redneck supported by the oil industry, and you would be right. His family are major beneficiaries of the oil and gas leases.

An extract -

"To industry boosters like Mr. Boren, the boom has brought little but benefits to his state and the country. "This is the answer," Mr. Boren said, saying natural gas is abundant and can be safely extracted.

Mr. Boren was among the 41 House Democrats who joined Republicans in 2005 to pass legislation that largely prohibited the federal government from regulating fracking under the Safe Water Drinking Act, and he has repeatedly pushed the Obama administration since then to keep the prohibition in place."

My point is that the **anti-fracking campaigns will have to come up with credible arguments as to why poor areas cannot benefit from gas exploration and exploitation. Simply pushing for better regulation is not enough.**

PLEASE ADD TO YOUR MASTER LIST
roisincorran@gmail.com

PLEASE ADD TO THE BASIC LIST (newsletter and upcoming events)

Received from: Ursula Schweiger

islandviewridingstables@gmail.com

Please find email addresses of people who wish to get newsletter and hear about North West network meetings / activities ...

We got these email addresses during last few meetings in Cliffoney

Declan info@3energy.ie

Rory Convan info@ballincastle.ie

John Brennan JohnPBrennan@sify.com

Fionam Geown fionamgeown@hotmail.com

Eamonn Maye eamonnrm@hotmail.com

Sylvia Schoch sylviaschoch@web.de

Margaret maggieandleo@gmail.com

Jane Golden janegolden@ireland.com

Annett

Steggins annett_pfefferkorn@yahoo.de

Hubert Keaney hubertkeaney@hotmail.com

Dolores

McSharry dmc_sharry@hotmail.com

Paul McGowan pablomcgowan@gmail.com

Linda Hunt lindahuntart@gmail.com

Liam Finnsgan finnegansshop@gmail.com

Richard

Coghlan snorkelingbee@yahoo.ie

MAKE-US-ALL-VERY-HAPPY-NEWS

FIGHT THE FRACK: MORATORIUM AND BAN!

Congratulation to all of us- our work has paid off so far!

It's been a long bumpy road but we've made it this far. Let all of us keep up the good work, what ever role you took on, we're only strong if we support each other and stay united - we all share the one goal - **to ban fracking in Ireland.** :)

Councillors voted for a ban on fracking in Co. Roscommon, for a moratorium in Co. Leitrim and 49-30 voted for a moratorium in NI!

NORTHERN IRELAND ASSEMBLY MEMBERS PASS MOTION CALLING FOR A FRACKING MORATORIUM

<http://bridgendgreens.wordpress.com/2011/12/06/northern-ireland-assembly-members-pass-motion-calling-for-a-fracking-moratorium/>

(Web FFI homepage and Irish Press/Fermanagh/NI)

Received from Charlie Williams: December 6, 2011

Northern Ireland Assembly members have called for a freeze on gas exploration in Fermanagh to avoid the consequences of fracking. A **Green Party** and Alliance Party motion against the potential use of hydraulic fracturing, which pumps water into the ground to release shale gas, was passed with the support of Sinn Fein and the SDLP.

But predictably the DUP rolled in behind its Enterprise Minister Arlene Foster. Mrs Foster said it was correct to pursue the possibility of identifying a source of locally obtainable fuel, but **Green MLA Steven Agnew** said there was no guarantee Northern Ireland would benefit from such a find, which he said he opposed anyway, urging emphasis on alternatives to fossil fuels.

Stephen Agnew presented the Assembly with a petition of more than 2,800 signatures ahead of the debate on fracking. He said groups of worried residents had travelled from as far as Fermanagh and Sligo, with areas of both the north and south of Ireland affected by potential fracking operations.

Mr Agnew said fears over environmental damage and health concerns had seen the process halted in parts of the US, Germany, South Africa and France.

Assembly members cited tremors in an area of the north of England where fracking was being employed.

He said: "The people of Northern Ireland need a full review of this decision and a ban on this process. This process could severely impact our tourism industry, agriculture, our water quality, environment and our health."

Where does this leave Carwyn Jones' Labour administration in Cardiff Bay? Looking like King Canute in the face of the tide of concern and opposition to fracking. He needs to grasp the nettle and take an historic opportunity for the Welsh Government to make a telling impact on UK policy for a change, and unite with his Conservative rival Andrew RT Davies in calling for a moratorium on fracking related activity in Wales.



Also => [BBC - Democracy Live - Hydraulic fracturing continued](http://news.bbc.co.uk/democracylive/hi/northern-ireland/newsid_9655000/9655465.stm)
http://news.bbc.co.uk/democracylive/hi/northern-ireland/newsid_9655000/9655465.stm
(Web FFI Irish Press/Fermanagh/NI)

UTV News - Heckler halts Stormont fracking debate.

(The title is "misleading" but the content of the article is good.)

Received from: Junko Okura
preabsanol@gmail.com



Proceedings were suspended by Principal Deputy Speaker Francie Molloy until the man was removed.

<http://www.u.tv/News/Anti-fracking-protest-at-Stormont/75bf19b6-18e1-4eef-9a58-fa1d7491888c>

Assembly backs call for 'fracking' moratorium - Local - News Letter:

Received from: Junko Okura
preabsanol@gmail.com

Motion passed

By: Dervilla Keegan dervybird@hotmail.com
It was brought to my attention that it might be nice if we all emailed our **thanks to the councillors** for their support for last night motion. Think thats a nice idea, and am sure some of ye have already done this. (I know I havent yet but going to do it now!)

A word of thanks can indeed mean alot. :)

The Numbers of your councillors are listed under their areas (see left of page) on [http://www.leitrimcoco.ie/eng/About the Council/County Councillors/](http://www.leitrimcoco.ie/eng/About_the_Council/County_Councillors/) or yu get them them all together on <https://www.facebook.com/groups/146055765467930/> or [http://www.environ.ie/en/LocalGovernment/Local GovernmentAdministration/LocalAuthorities/](http://www.environ.ie/en/LocalGovernment/LocalGovernmentAdministration/LocalAuthorities/)

We have a great supporter!

Received from Majella Mccarron
majella.mccarron@gmail.com

This was sent to MLAs , newspapers.

Dear

I apologise in advance for this unsolicited email.

I have very recently become aware (via the attached document recently sent to all GPs in Fermanagh) that the technique of hydraulic fracturing, commonly called "fracking" is proposed to be used for shale gas extraction in areas of Fermanagh.

I am so deeply uneasy and concerned about this proposal that I am prompted to write to you. Although I write in a private capacity, I am informed by my background as a practising scientist for over 30 years.

I first became aware of this issue while I was a Visiting Professor at Stanford University in the summer of 2009. At that time, there was much discussion about this controversial issue in the US. It was apparent then to me that the technique had very serious health and environmental concerns that would need to be

scrutinised thoroughly before it could be authorised.

The attached document gives much clear detail on the potentially deleterious health and environmental impact of this technique. My major concern is that this technique could be introduced **without sufficient investigation or indeed general awareness of its potential harm** to the health and environment of people in Fermanagh.

One of the areas concerned is near Florencecourt, an area whose geology I became familiar with many years ago as part of my studies. It is a place of outstanding natural beauty and attracts many thousands of visitors yearly. However I know from my studies that the nature of the geological strata is such that contaminants introduced in one area will rise up again many miles from the original site.

My own background is that I come originally from Omagh and studied chemistry, obtaining a PhD in Queens in 1983. Also in the 80s, I won a Fulbright Scholarship to work in MIT under Professor K. B. Sharpless. My work there formed a small part of the body of work for which Sharpless was subsequently awarded the Nobel Prize (2001) and I am gratified that he acknowledged this in his Nobel Address. I have worked here at UCD since the early 90s and have published over 70 scientific papers in the areas of chemistry and catalysis as well as starting a Campus Company based on a breakthrough from my group.

My specific interest in this area of Fermanagh arises because I took Geology as my Subsidiary Subject in Queens and I studied the geology of Upper Lough Erne, including the areas around Florencecourt and Marble Arch (before the latter was a vibrant tourist attraction).

I believe that there will be discussion of this issue on Tuesday this week in the NI Assembly.

I appeal to you to act to prevent the introduction of this technique in Northern Ireland without a thorough review of its safety.

Thank you for your patience

Regards

Declan Gilheany
Professor Declan G. Gilheany
School of Chemistry and Chemical Biology
University College Dublin
Belfield, Dublin 4, Ireland
Tel: +353-1-7162308
declan.gilheany@ucd.ie

ASSEMBLY REPORTS on HF

Received from Michael Mc Envoy
mickeymcevoy@yahoo.com

Both the links oppose "fracking"

<http://www.newstatesman.com/environment/2011/08/gas-fracking-energy-climate>

http://tyndall.ac.uk/sites/default/files/tyndall-coop_shale_gas_report_final.pdf

Comments on the reports by Majella:

Many thanks to Patsy - nice to see a politician with morals.

No surprises - but could be worse.

I notice they don't have a section on Regulation.

If they did they would be able to report on the findings of EU report "Impacts of shale gas and shale oil extraction on the environment and on human health" (which is advised for further reading).

E.g. no European mining law - but should be developed, gaps in regulatory frameworks w.r.t hydraulic fracturing, need to reassess WFD etc And to conclude -

"The present privileges of oil and gas exploration and extraction should be reassessed in view of the fact that the environmental risks and burdens are not compensated for by a corresponding potential benefit as the specific gas production is very low."

The expected cherry picking.

Not even a Contents page for the briefing paper. Just can't get the staff these days.

Majella

As we speak the FFAN crowd are gathered at Florencourt for a photo op.

Report will be uploaded soon on the FFI web. (Irish press/Fermanagh-NI)

ACTIONS PREPARING FOR DECEMBER 6,

Overdue (due to my absence, crafts fair in Dublin) , but still interesting info

Received from Majella Mccarron
majella.mccarron@gmail.com

sent to MLA and others

Please find attached a briefing titled '**A Briefing For Medical Professionals On The Potentially Harmful Effects Of Hydraulic Fracturing ("Fracking")**'

It is being circulated to medical professionals in Fermanagh ahead of the Assembly debate on Fracking on 6th December. We invite you to read and consider the briefing prior to the debate.

We urge you to support the motion to introduce an immediate moratorium on Fracking in Northern Ireland.

Thank you for your time and interest.

Geralyn McCarron MB BCh BAO FRACGP
Marilyn Trimble
Marian Tracey
Majella McCarron

[Briefing Paper for Medical Professionals 30-11-2011_97-200](#) (Web FFI: Iris Press/Fermanagh/NI)

PRESS RELEASE (and lots of useful info)

Received from: Michael Mc Evoy
mickeymcevoy@yahoo.com

Please see Press Release that a colleague put together. We sent out to a lot of Belfast paper today. Please feel free to send it out all over the north and the republic.

<http://frackingfreeireland.org/wp-content/uploads/2011/09/Press-Release-anti-fracking-petition-being-presented-6th-D.pdf>

IRELANDS GROWING ENERGY DEMAND

Gas Exploration Issues: An Irish Case Study



At the 2011 Shale Gas Environmental Summit in London, Elizabeth Muldowney, principal consultant at KfV and founder of the Irish Trust National Energy Forum placed into context the shale gas predicament in Ireland.

"65% of Irish power is generated by natural gas, yet 95% of that is imported. So when you come to adding up the Irish portfolio, 50% of our electricity is generated from important fossil fuels and so we are in a very dangerous position from the point of view of security of supply," she said.

Gas exploration issues: an Irish case study

- <http://www.naturalgaseurope.com/gas-exploration-issues-an-irish-case-study-3560>

(Web FFI: Irish Press/News)

Ireland's demand on energy and how to solve this, the resistance of the people against renewable energy and much more

And: IRELAND RECEIVES (Illegal) NUCLEAR POWER FROM THE UK

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FRACKING in E-magazine

www.irishenvironment.com

Received from: Robert Emmet Hernan,
publisher@irishenvironment.com (1-12-2011)

I wanted to draw your attention to Irish environment, an electronic magazine, and its coverage of the fracking issue. As you'll see below the current issue has a Report that digests

and makes accessible a long, complicated Environmental Impact Statement by the State of New York on whether fracking should be allowed in New York, as well as a holiday song on "Fracking Wonderland," also fROm New York. In earlier issues of the on-line, free magazine you'll find an article on "The Pennsylvania Experience With Methane Extraction, or Fracking," a YouTube entry on "Fackign Song," an earlier iePEDIA entry on "Hydraulic Fracturing." And more to come in future issues. Good luck to you all.

Just to let you know that the December 2011 (27th) issue of Irish Environment has been published and includes

News: updated each Monday, Wednesday, and Friday

Article: EEA, Policies and measures to promote sustainable water use - including water charges

Report: Fracking in New York: accidents, spills, releases, ETC - digest of voluminous New York State EIS on fracking

Podcast: Interview with Patricia Mackey, Sustainable Northern Ireland

iePEDIA: Global Warming Potential **YouTube:** Fracking Wonderland - a holiday song

Please pass along this Notice about the magazine to colleagues, friends and others interested in protecting the environment.

www.irishenvironment.com

Robert Emmet Hernan
Blue Stacks Productions Inc. Publisher
publisher@irishenvironment.com

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RECORDING

There was an item (in two parts) on Fracking on the BBC1 Country File programme. Here is a recording that I made of the programme.

<http://fisnua.com/wp-content/uploads/2011/12/BBC1CountryFileFrackingPart1.wmv>

<http://fisnua.com/wp-content/uploads/2011/12/BBC1CountryFileFrackingPart2.wmv>

Mary Attenborough (Mary - The Webbery
marya@webbery.ie)

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ELIZABETH MULDOWNNEY and energy

<http://www.rjkenergy.com/en.php/programme/speakers/elizabeth-muldowney>

<http://www.politicalworld.org/showpost.php?p=207396&postcount=198>

Statement An Taisce

Dear All,

We have had this email forwarded to us.

The three year contract of Elizabeth Muldowney, our former Energy Officer, came to an end in September of this year.

She has advised us that she was not employed by anybody else whilst in the employ of An Taisce.

An Taisce made a presentation to the Joint Committee on Environment, Transport, Culture and the Gaeltacht in September this year calling for a ban on Fracking until it could be shown that Fracking was Environmentally, Socially & Economically Sustainable.

This is still An Taisce's position.

With Best Regards

Charles Stanley-Smith

Chair An Taisce

Charles Stanley-Smith charles@r495.com

Press Release September 21st 2011

An Taisce called for a moratorium on 'Fracking' in a presentation to the Oireachtas Joint Committee on Environment, Transport, Culture and the Gaeltacht.

At yesterday's Oireachtas Joint Committee on Environment, Transport, Culture and the Gaeltacht Charles Stanley-Smith, Chair of An Taisce The National Trust for Ireland stated "An Taisce is calling for a Ban on 'Fracking' until such time as the People of Ireland can be convinced that it is possible to regulate Fracking, so that it can be undertaken sustainably and as a result there will be no environmental, social or economic harm."

He continued "Fracking has gained a very poor reputation in recent years, with many cases of environmental and societal damage recorded in the US. Much of this is due to the large amount of land used and its proximity to population and groundwater. Many would say that the pollution was caused by lax regulation in the past. Others say that Europe and Ireland can learn from the mistakes of the US and 'Frack' under 'Best Practices'. Unfortunately, Ireland has an extremely poor history of environmental enforcement and the environmental threats of Fracking are many and due to the hundreds of sites involved will be cumulative. Can you really

convince the People of Ireland that 'this time it will be OK'?"

"An Taisce is very aware of the potential jobs that 'Fracking' could provide so we are also calling for a full 'Life Cycle Analysis' to be undertaken on Fracking to see if it will really bring benefits to the People of Ireland and at what risk?"

ENDS

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NEWSLETTERS – how independent are they?
by Majella

...Start with Independent News and Media plc

The O'Reilly family(headed by Sir Tony O'Reilly) and close allies have a controlling interest in Independent News and Media plc (over 29.5% at July 2008).

Independent News and Media plc own the Belfast Telegraph group which publishes the [Belfast Telegraph](#), [Sunday Life](#), [Ads for Free](#)

The company owns the [Evening Herald](#), [Irish Independent](#), [Sunday Independent](#), [Sunday World](#) and the [Irish Daily Star](#), as well as 14 regional titles, two free newspapers, and a magazine. It has a substantial central website, [Independent.ie](#)

Tony O'Reilly has a 40% stake in Providence Resources Plc, the Irish based oil and gas exploration and development company which has the Rathlin license, **PL 5 / 10**

It's a serious conflict of interests and one which we should be thinking about in terms of ownership trumps worthy stories. I think a protest on 19th is worthwhile but I don't think it should be about the Tele being a Murdoch-type rag (which it may well be). We need to expose the links. And there may be other ways in addition to a placard protest.

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BLACKPOOL

Residents share fracking fears

http://www.blackpoolgazette.co.uk/news/business/residents_share_fracking_fears_1_4018537

1 December 2011 Last updated at 21:05 GMT

Three fracking protesters remain on Banks gas rig

Three protesters remain on a gas drilling site in Banks, Lancashire.They attached themselves to a rig in protest against fracking, a contentious method of extracting gas being used there, at about 07:30 GMT on Thursday.

The two women and man say they are from Bristol Rising Tide protest group and intend to occupy the site for several days in order to halt the drilling.

Energy company Cuadrilla, which owns the rig, said it had "nothing to hide" about its operations.A spokesperson said: "We welcome open dialogue with local people. "We have shown over 100 people around our operational sites over the last year."

They added the protesters were not local, had "not bothered" to participate in dialogue and were using up police time.'Continuing to negotiate'

A member of the protest group, who gave his name as Tim, said: "The fracking that they're doing here in Lancashire, they're proposing to do down south near us - the shale deposits in Somerset, Devon and Dorset as well. "It's small-scale now, but it could affect the whole country. We think it's irresponsible environmentally.

"A Lancashire police spokesperson said: "We are continuing to try and negotiate with them but they remain up there."Two people have been charged in connection with the protest.

Emma Byron, 40, and Spencer Pawling, 42, both from Bristol have been charged with obstructing/disrupting a person engaged in a lawful activity and have been bailed to appear before Ormskirk Magistrates' Court on 20 December.

Fracking is the process of drilling into hard shale rocks to release the gas.But concerns have been raised that the process could contaminate water supplies and may cause small earth tremors.

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Effective mesh density: a useful measure of landscape fragmentation

Transport infrastructure and urban sprawl are increasingly dividing up landscapes in Europe, threatening wildlife. A new report has quantified landscape fragmentation across 20 European countries. To prevent further negative environmental impacts, it recommends protecting unfragmented areas, monitoring fragmentation and applying fragmentation benefits to planning.

Over the last 30 years, landscape fragmentation in Europe has increased and this trend is set to continue with more transport infrastructure planned, such as road and rail networks, particularly in eastern Europe. The report applies the method of effective mesh density (EMD) that quantifies the degree to which wildlife movement is interrupted by barriers in the environment. It found that EMD values vary across the 20 countries considered, with the lowest in large parts of Scandinavia and high values in western and central Europe. There are many highly fragmented regions in Belgium, the Netherlands, Denmark, Germany, France, Poland and the Czech Republic. High levels of fragmentation are usually found around cities and along major transport corridors, whereas low fragmentation is usually associated with mountain ranges or remote regions. The report also identified several of Europe's most fragmented areas, such as the Alpine region. It also found that the most relevant drivers are population density and increasing transport volumes of goods and passengers. The analysis also indicated that different drivers of landscape fragmentation were important in different parts of Europe. For example population density was important for most areas except Scandinavia. The results include there is an urgent need to combat fragmentation and EMD could be incorporated in decision policy responses at a European, national and regional level. It is already being applied successfully in Sweden to monitor sustainable development and in Germany as a core indicator for environmental monitoring. The report recommends its use for several purposes:

- To analyse the extent to which planned transport routes will increase fragmentation
- To assess and compare alternatives for transport infrastructure and built-up areas
- To determine the contribution of each category of transport route to total fragmentation
- To inform decisions on the removal of transport infrastructure to reduce fragmentation

The report also highlighted important knowledge gaps and areas for future research. For example, there is a need to include additional barriers, such as agricultural fences and minor roads, and to study fragmentation of rivers and streams in detail. In addition, research on the effect of landscape fragmentation on wildlife populations and the delay in impact of fragmentation on different species need to be considered.

Finally, the report identified a number of recommendations in traffic and regional planning for controlling landscape fragmentation. These included barriers and wildlife passages, upgrading existing roads, rather than constructing new roads to prevent unfragmented areas that are as large as possible, bundling transport routes to new roads.

<http://frackingfreeireland.org/wp-content/uploads/2011/08/Effective-mesh-density-a-useful-measure-of-landscape-fragmentation.pdf>

(Web FFI: Political issues/EU Parliament)

PROTEST IN POLAND DURING CONFERENCE and

SHALE GAS ESTIMATES LIKELY TO BE RECALCULATED

November 28th, 2011 10:56am Posted in: Shale Gas, Natural Gas, News By Country, Poland

Twitter Facebook

Protesters Try and Boost Polish Anti-Shale Movement



Anti-shale gas protesters have been visible in country villages and towns of France, in Bulgaria and Germany and protesters have set up camps adjacent to drilling operations being conducted by Sablex Resources in the UK.

Shale gas protestors occupy Warsaw conference

http://www.naturalgaseurope.com/protesters-try-and-boost-polish-anti-shale-movement-3760?utm_source=Natural

(Web FFI: global fracking/global resistance)

Polish Shale Gas Estimates Likely to be Recalculated



Natural Gas Europe recently interviewed Pawel Poprawa, Chief Specialist & Head of Petroleum Geology Laboratory at the Polish Geological Institute.

Mr. Poprawa recapped shale gas exploration efforts in Poland to-date and suggested that an incoming Polish-American report will include a more conservative evaluation of technically

<http://www.naturalgaseurope.com/polish-shale-gas-estimates-likely-to-drop>

(Web FFI Political issues/Poland)

WHAT WE CAN LEARN FROM THE BAN IN FRANCE

Received from: Natalie Descheres (1-12-2011)
n.descheres@socratconsulting.com

- **Political infiltration:** I have found this article (translated from French by Google), which details the political connections of the lobby group in France. Being aware of those political connections gives an idea of the tactic employed. One can not be too naïve in this game

<http://www.microsofttranslator.com/BV.aspx?ref=IE8Activity&a=http%3A%2F%2Fwww.datas.ch%2Farticle.php%3Fid%3D677>

(Copy and paste to browser)

- **Political game:** Total in France has seen its license revoked last October. At the time, activists wondered whether the revocation was a political coup to appease the demonstrations and to secure a few votes for the coming presidential. A sure sign that their concerns might be

legitimate, would be an appeal from Total with verdict to be delivered after the elections. It would appear that it is what will happen. If the following article is read after having read the previous ones, there is most definitely cause for concerns.

<http://www.microsofttranslator.com/BV.aspx?ref=IE8Activity&a=http%3A%2F%2Fwww.ledauphine.com%2Fdrome%2F2011%2F11%2F27%2Ftotal-va-deposer-un-recours-contre-l-etat> (copy paste to browser)

- **International geo politicing:** Canadian lobbying effort to relax regulations detailing Cameron involvement :

<http://www.microsofttranslator.com/bv.aspx?from=&to=en&a=http%3A%2F%2Fwww.fni.fr%2F2011%2F11%2F29%2Fchantage-au-petrole-sale-sables-bitumineux-canada-schiste%2F>

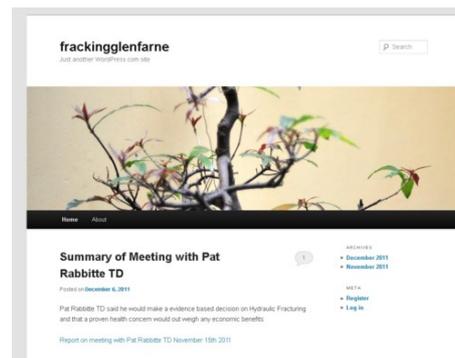
- **NGO involvement: (Pennsylvania, website is a crash course in fracking)**

- Friend of the earth has compiled this website on the issue of fracking, it is quite comprehensive and explore all aspects from environmental to legal etc... <http://frack.mixplex.com/fracking> (copy paste to browser)

- I sent it before but I think it is an important report from Greenpeace describing the gas industry and its lobbying tactic. As mentioned by Pat Rabitte recently, the industry is committed to make fracking socially acceptable (by whatever means). In France the law "banning" fracking finally passed when a get-away clause allowing for "experimental fracking" was added. A joint industry-government body is supposed to be established to monitor impact but the scope of this commission is very narrow, documenting the state of technology rather than the impact on the environment, health etc. So it is most industry friendly, which again reinforce the first article. Maybe something to be aware if P. Rabitte adopts a similar approach.

<http://www.greenpeace.org/usa/en/campaigns/global-warming-and-energy/The-Problem/fracking/> (desmog report at the bottom)

MEETING WITH PAT RABBIT – full report



By Eddie Mitchell (30-11-2011)
Report on meeting with Pat Rabbitte November 15th 2011

A delegation of concerned citizens from the North West met with Minister Pat Rabbitte, minister for communications, energy and natural resources in Dail Eireann on November 15th re the possibility of a licence being granted for shale gas extraction using the method of hydraulic fracturing. The delegation consisted of Aedin McLoughlin, Rob Doyle, Nuala McNulty, Eddie Mitchell and Miriam Hennessy, the meeting was arranged by Frank Feighan, TD. Other attendees at the meeting were: Michael Colreavy TD, Luke Ming Flanagan, TD, Joe O'Reilly, TD, Tony McLoughlin, TD, John Feely and representatives from the petroleum affairs division.

Aedin McLoughlin (AML) began with a presentation to the group on The Environmental, Social and Economic impacts of Hydraulic Fracturing.

Rob Doyle (RD) gave a presentation on Agriculture, Human Health and Economic Concerns

Nuala McNulty (NMcn) presented on Tourism/Ecotourism in the NW, Vision for the area and Government commitment to tourism
Eddie Mitchell (EM) gave a summary of the concerns of the community around shale gas extraction covering the areas of Energy security, Public Health, Agriculture, Manufacturing, Current situation in the US and EU, Tourism and the Aarhus Convention

All attendees received a written copy of the presentation, which was prepared by Eddie & Olivia Mitchell, Aedin McLoughlin, Robert Doyle, Nuala McNulty, Johnny Gogan, Miriam Hennessy and Michael Ewing.

Minister Rabbitte thanked the group for their presentation which was intelligent and comprehensive. The group discussed with the minister, and other attendees the concerns of the residents in the North West in relation to human and animal health, loss of sustainable jobs, industrialization of the area and breakdown of community should hydraulic fracturing commence in the area.

Minister Rabbitte acknowledged the concerns, discussed the difficulties facing the government and country in relation to energy security, that 90% of our energy is imported and that he has requested that the EPA carry out a study on hydraulic fracturing. RD pointed out that Leitrim, with the number of wind farms it contains is close to carbon neutral. The group discussed the terms of reference of the EPA study on fracking.

Minister Rabbitte confirmed that they have not yet been set but that an initial consultation has commenced with Aberdeen University and this would lead to the terms of reference being set, this study will be completed in 2-3 months. EM asked that a full Life Cycle Analysis to include human health be carried out. Minister Rabbitte invited the group to make a submission to the

EPA which was agreed. Minister Rabbitte stated that, if there was a public health issue the economic benefits would be irrelevant, he also said that he would consult with the Northern Irish authorities re the granting of the second stage of the licence there as to their rationale for that. Following the meeting, the group asked Deputy Frank Feighan to arrange a delegation to meet Minister Phil Hogan, Minister for the Environment, Community and Local Government and this was agreed.

Nov 2011

<http://frackingglenfarne.files.wordpress.com/2011/12/report-on-meeting-with-pat-rabbitte-td-november-15th-2011.pdf>

SOME GOOD NEWS FROM THE USA. – EPA

received from: Lisette van Vliet, Ph.D (30-11-2011).

From: Giamporcaro.David@epamail.epa.gov [mailto:Giamporcaro.David@epamail.epa.gov]

Sent: Wednesday, November 23, 2011 1:53 PM

Subject: EPA Response to Section 21 Petition on Oil and Gas Exploration and Production Chemicals

Good afternoon. Today, EPA is granting a portion of a petition submitted by 120 public health and environmental organizations asking the Agency to use its authority under the Toxic Substances Control Act (TSCA) to require companies to submit health and safety related information on chemicals used in hydraulic fracturing. While EPA has not granted the entire petition, consistent with the priorities identified in the President's Blueprint for a Secure Energy Future and with the Secretary of Energy Advisory Board recommendations on steps to support the safe development of natural gas resources, EPA will launch a stakeholder and public engagement process to seek input on the design and scope of TSCA reporting requirements.

EPA is exploring an approach that would minimize reporting burden and costs, take advantage of existing information, and avoid duplication of efforts. EPA believes that the development of this country's natural gas resources should continue to grow responsibly, building off the important work that has already been done by the states, the industry, and others to disclose crucial information to the American public.

More Background:

On August 4, 2011, EPA received a petition requesting that EPA require manufacturers and processors of oil and gas exploration and production chemicals to: 1) require toxicity testing (under TSCA section 4); and 2) maintain and submit records on these chemical substances and mixtures, and any data on environmental or

health effects and exposures (under TSCA sections 8(a), 8(c), and 8(d)). Today's response follows a Nov. 2 interim response which informed the petitioners that the Agency is not granting the request to require toxicity testing under TSCA Section 4 because the petition does not satisfy the requirements of TSCA to demonstrate the need for additional testing. Today, EPA notified the petitioners that the Agency is partially granting the TSCA Sect. 8(a) and 8(d) requests and will initiate a dialogue process to seek public input on the design and scope of TSCA reporting requirements.

For more information visit
<http://www.epa.gov/oppt/>

SOME OTHER NEWS FROM THE USA- drilling fee

Received from Tony Lowes, (2-12-2011)
tony@friendsoftheirishenvironment.org

Not that we want fracking but as a model for the Irish natural resource tax system might be worth circulating?

Tony

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Legislators weigh in on drilling fee bill

A bill to enact an impact fee on drillers in the Marcellus Shale was approved 107-76 in the House Nov. 17, mainly along party lines, with local Democratic representatives voting against it. And while members of the Montgomery County Republican delegation voted for the bill, several issued statements afterward explaining their less than wholehearted support for it.

House Bill 1950 permits counties impacted by drilling in the Marcellus Shale to enact an impact fee with a sliding scale structure. The fee would be split with 75 percent going to the county enacting the fee and 25 percent to the state for infrastructure improvements, environmental protection and public health and safety initiatives.

A bill passed in the Senate Nov. 15 imposing an impact fee on natural gas drillers would split revenues 55 percent to impacted municipalities and 45 percent to statewide infrastructure and environmental programs.

Under the House bill, an estimated \$60 million to \$200 million a year of royalty payments going into the oil and gas fund would go to the Environmental Stewardship Fund, which would provide funds to the Hazardous Waste Fund and Growing Greener program, the latter funding

open space preservation and environmental protection, according to state Rep. Kate Harper, R-61. After more than a decade, Growing Greener is almost out of money and may cease to exist without a dedicated funding source.

A local champion of Growing Greener, Harper, issued a release following the vote stating, "While this particular impact fee was not my first choice, it marks a very significant step forward in my ongoing effort to ensure the natural gas industry is held responsible and accountable for any impacts it may have on both drilling communities and the environment statewide."

In a Nov. 18 interview, Harper said she would prefer her own or some other bills proposed to impose a statewide tax on the Marcellus Shale drillers. Harper's bill, which is stuck in committee, would impose a 1.5 percent tax on natural gas extraction with 36 percent of revenue going to environmental programs including Growing Greener, Hazardous Sites Cleanup Fund and other agencies, 32 percent to counties directly impacted by the drilling and 32 percent to an education account.

The bill passed "enables local counties to pass a fee and keep the money locally," Harper said. "That's at odds with my thinking."

She voted for the bill, because "it also provides Growing Greener funding and Hazardous Sites Cleanup Act funding ... things I thought essential."

Harper said she does not support the Senate bill because the money for statewide environmental initiatives would go to the Commonwealth Financing Agency, which she "is less certain is unbiased," as its supercommittee is staffed with political appointees.

Harper's bill and a similar one by state Rep. Tom Murt, R-152, which she co-sponsored, would funnel money from a statewide tax to the general fund, which the governor "has made clear" he does not favor, Harper said.

"While I am unhappy the House chose not to consider my legislation that would dedicate funds from Marcellus Shale drilling to education and programs to help those with special needs, this bill [HB 1950] remains a solid first step," Murt said in a press release.

Murt also pointed to providing a dedicated source of funding for the Environmental Stewardship Fund and protection for local communities as pluses, but noted with the Senate still having to act on the House bill, "We will get another shot" to make it "a better bill."

While stating HB 1950 "was not my first preference, and it imposes a lower fee on drillers than what I had hoped for," state Rep. Bernie O'Neill, R-29, said in a press release, "it is a fair bill" that holds the industry accountable for impacts on local drilling communities and provides funds for Growing Greener.

O'Neill also said he would "continue to advocate for more stringent guidelines" and hope to see an increase in the impact fee imposed.

Likewise, state Rep. Todd Stephens, R-151, issued a release stating, "While it's far from perfect, HB 1950 puts in place important environmental protections," provides open space funding and holds the natural gas industry "accountable for any financial impact" on affected communities.

The bill was criticized in a House Democratic Caucus press release as a "weak" tax with "what is effectively a 1 percent tax rate per well."

"If we are serious about protecting our environment, then we should enact a robust severance tax, not this sham of a bill," Democratic Whip Mike Hanna said in the release.

"The bill sets up a scheme of a hodgepodge of county regulations, does not adequately protect Pennsylvania's environment and leaves counties like Montgomery too little protection from environmental disaster caused by drilling," said state Rep. Josh Shapiro, D-153, Nov. 22. If a neighboring county had a drilling disaster that affected the water supply in Montgomery County, there would be no funding to cover that, he said.

Shapiro said he had voted for a statewide severance tax "to make drillers pay their fair share to protect the environment and public health," but that bill did not pass.

Fellow Democrat, 148th District state Rep. Mike Gerber ticked off five reasons he voted against the bill.

"The revenues generated would be woefully short of meeting the commonwealth's needs," Gerber said. A 1 percent tax on drillers "is far below what other major drilling states have imposed," which he said range from 5.9 percent to 8.6 percent. And while HB 1950 was amended to address local zoning rights, "it still preempts a lot of zoning rights of local communities" and provides "weak community protection provisions," he said.

In addition, he said, the bill "pushes future environmental remediation costs onto the backs of future generations all in the name of economic opportunity today."

The provision to have 75 percent of the fee revenue go to the local communities "is a dangerous departure from [current] practices ... to take these revenues and significantly limit their use to the drilling territories and not have them go into the general fund like we do with most major taxes, such as the personal income tax," Gerber said.

The bill also "creates a significant risk to the drinking water in Southeast Pennsylvania," but provides little if any revenue to the region, he said.

Published: Friday, December 02, 2011

Linda Finarelli

lfinarelli@montgomerynews.com

http://www.montgomerynews.com/articles/2011/12/02/glenside_news_globe_times_chronicle/news/doc4ed81fd49ba07025716490.txt?viewmode=fullstory

SOME RECENT REPORTS

Received from Aedin McLoughlin (30-11-2011)
aedinmcloughlin@gmail.com
(Web FFI: official reports/research/articles)

US EPA has produced a study outline focused on assessing the impact of fracking on water resources. The report was published a couple of weeks ago, and gives a really good overview of the potential areas of interest and might be of use here too.

And, very handily, they've produced a powerpoint presentation on it too:

<http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/index.cfm>

<http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/upload/Webinar-for-Study-plan-release-11-10-11.pdf>

http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/upload/FINAL-STUDY-PLAN-HF_Web_2.pdf

This is the geomechanical report on the Bowland Shale seismic events from early this summer. Good overview of the nature of the seismic activity and the role the testing had in triggering it.

http://www.cuadrillaresources.com/cms/wp-content/uploads/2011/11/Final_Report_Bowland_Seismicity_02-11-11.pdf

And here's a pretty entertaining article from the New Yorker about the oil/gas boom in the Dakotas. Gives a good explanation of the fracking processes too:

http://www.newyorker.com/reporting/2011/04/25/110425fa_fact_konigsberg

And an editorial comment in this week's New Yorker from Elizabeth Kolbert (who is one of their science/environment staff writers):

http://www.newyorker.com/talk/comment/2011/12/05/111205taco_talk_kolbert

Articles on drilling lease problems in the US and on shale in South Africa

Article from the New York Times on troubles landowners in the US are having with gas leases and another article from the Financial Times on shale gas in South Africa.

<http://www.ft.com/cms/s/0/cd2a4a64-145d-11e1-8367-00144feabdc0.html#axzz1fpN228J5>

<http://www.nytimes.com/2011/12/02/us/drilling-down-fighting-over-oil-and-gas-well-leases.html?pagewanted=all> Your account Site tour Sign out

MAKE-YOU-HAPPY-NEWS

Ruffalo Embraces a Role Closer to Home – (opposes fracking)

http://www.nytimes.com/2011/12/04/fashion/mark-ruffalo-actor-embraces-anti-fracking-role.html?_r=1&emc=eta1

By [MIREYA NAVARRO](#)

Published: December 2, 2011

Ruffalo Embraces a Role Closer to Home

STROLLING by restaurants and antiques stores on a quiet Main Street the day after Thanksgiving, Mark Ruffalo waved hello to a girl in the back of a passing S.U.V. and greeted friends on the sidewalk who were eager to introduce visiting relatives.

Mr. Ruffalo, the actor known for indie hits like "The Kids Are All Right" and "You Can Count on Me," has lived in this sleepy Catskills burg on the Delaware River for three years now, settled into a routine focused on raising three children with his wife, the actress Sunrise Coigney, on a former dairy farm with a 2,500-square-foot house, a barn and a pond.

"There's always a renovation going on," he said, describing one way he keeps busy when he's not filming on location elsewhere. "My pond is kind of Grand Central for the families in the summer."

Then, crossing a bridge above the river's crystalline waters, Mr. Ruffalo the affable neighbor suddenly metamorphosed into the other Mr. Ruffalo: the celebrity figure for the movement against [natural gas](#) drilling in New York State.

"This is the cleanest river in the United States, and if they go through with this, it's going to be a massive industrialization of New York," he said vehemently. "People have no idea what they're in for."

Not surprisingly, Mr. Ruffalo has become something of a polarizing force in this neck of rural New York, where a debate over plans for drilling has pitted neighbor against neighbor.

The land that he cherishes sits atop one of the richest natural gas fields in the world, the Marcellus Shale, and energy companies have scurried to negotiate leases with landowners in the expectation that New York State will begin issuing drilling permits next year.

Extracting the gas involves a controversial drilling process known as horizontal hydraulic fracturing, or hydrofracking, in which millions of gallons of water and chemicals are injected into the shale under high pressure.

Opponents like Mr. Ruffalo argue that the drilling could contaminate water wells, clog the roads with truck traffic and mar serene vistas. Supporters counter that fracking will revitalize economically depressed areas across the state.

William Graby, 58, a dairy farmer whose property is near Mr. Ruffalo's and jointly leads a group of local landowners who banded together to negotiate top price for the leases, said the risks

of hydrofracking have been exaggerated. He flatly accuses the actor of “trying to take away my property rights.”

“I can guarantee you that his bank account looks very different from the rest of us,” he said. “We need industry and jobs so we can send our kids to college.” Mr. Ruffalo has tried to persuade some neighbors into joining his cause but has mostly been rebuffed, Mr. Graby added.

The actor, 44, said he is thinking of his children, too. “I’m not going to allow my kids to be contaminated by gas drilling,” he said. As much as Mr. Ruffalo wants his son, 10, and daughters, 6 and 4, to grow up in a place where no one ever asks them “how much my movies are grossing,” he said, he would contemplate moving away if the state green-lights the drilling.

So, as energy companies pour millions of dollars into television ads and into lobbying the state government to approve the drilling, promoting fracking as a source of tax revenues and jobs, Mr. Ruffalo is hopping around the state, using his A-list status to campaign for a ban on hydrofracking in New York.

Mr. Ruffalo has raised money for elected officials opposed to fracking, led Occupy Wall Street troops to public hearings in New York City and

lobbied legislators in Albany and Washington for support. He enlisted actors like Ethan Hawke to make public service announcements and online videos about the potential dangers to tap water and started up his own Web site on the issue, waterdefense.org.

“Some of us work behind the scenes,” said the actress Debra Winger, a fellow resident of Sullivan County and fracking foe who arrived here more than 20 years ago. “Mark happens to be an energetic and wonderful speaker.”

Mr. Ruffalo, the eldest of four siblings reared near forest land in Wisconsin before the family moved to Virginia and, later, California, said he first fell in love with the Catskills region in the mid-1990s. Working on the Off Broadway version of “This Is Our Youth,” in which he played a laid-back college dropout, he decided to drive up and visit a friend in the area.

If you wish not to receive the newsletter please contact:
ineke@frackingfreeireland.org

Here is the information about the public petition on hydraulic fracturing being presented to the Northern Ireland Assembly, and the subsequent debate and vote on the motion for a moratorium on hydraulic fracturing in Fermanagh.

Public Petition

Hydraulic Fracturing

Mr Principal Deputy Speaker: Mr Steven Agnew has sought leave to present a public petition in accordance with Standing Order 22. I remind the House that a Member presenting a petition may refer only to the parties from whom the petition comes, the number of signatures on it and say briefly what it is about. That should take no longer than three minutes. I call Mr Steven Agnew to present the petition.

Mr Agnew: I have a petition that has been signed by almost 2,800 people. Fracking — the hydraulic fracturing of rock — is a method used to extract natural gas from the ground. The process involves

pumping millions of gallons of water mixed with toxic chemicals thousands of feet deep into the ground. It has been used in the USA and Australia, where it has caused widespread environmental damage and water pollution, including the death of livestock and wildlife. Serious health issues for people who live in those areas have also been reported. Because of that damning body of evidence, which includes academic reports, moratoria on fracking have been put in place in New York state, New Jersey, North Rhine, parts of South Africa and France.

A large area of Northern Ireland will be affected by fracking. A licence to frack has been issued for County Fermanagh. The people of Northern Ireland need a full review of that decision and a ban on the process, which could impact severely on the tourism industry, agriculture, water quality, the environment and health. The petition's signatories call on the Northern Ireland Assembly to place an immediate permanent ban on the process known as hydraulic fracturing and all related preparatory and exploratory work in Northern Ireland.

It is important to note that it is not a Green Party petition, but one that has been set up by Dawn Bourke, a Fermanagh native who now lives in the US and has seen the devastation that fracking can cause to human health and the natural environment. Although the petition has been signed by members of a number of political parties, the vast majority have no political allegiance. Instead, they have concern for the people of Northern Ireland, its natural environment and its agriculture and tourism industries, particularly in Fermanagh. A warning has come from across the Atlantic Ocean: we should heed it.

Mr Agnew moved forward and laid the petition on the Table.

Mr Principal Deputy Speaker: I will forward the petition to the Minister of Enterprise, Trade and Investment and send a copy to the Chairman of the Committee.

<http://www.niassembly.gov.uk/record/reports2011/111206today.htm#a1>

Private Members' Business

Hydraulic Fracturing

Mr Principal Deputy Speaker: The next item of business on the Order Paper is the motion on hydraulic fracturing. The Business Committee has agreed to allow up to one hour and 30 minutes for the debate. The proposer will have 10 minutes in which to propose the motion and 10 minutes in which to make a winding-up speech. All other Members who wish to speak will have five minutes.

Ms Lo: I beg to move

That this Assembly believes that a moratorium should be placed on the onshore and offshore exploration, development and production of shale gas by withdrawing licences for hydraulic fracturing (fracking), at least until the publication of a detailed environmental impact assessment into the practice; notes that hydraulic fracturing can put local water sources at risk of contamination; further notes that, amongst a variety of adverse environmental impacts, the process of fracking can cause serious well blowouts, which put both workers and local communities at risk; considers that the production of hard-to-reach fossil fuels is not compatible with efforts to achieve carbon reduction targets; and urges the Minister of Enterprise, Trade and Investment to give greater support to the generation of energy from renewable sources instead.

I welcome the opportunity to move the motion and urge Members to embrace our responsibility as public servants to protect our society and environment from the uncertain impact of a process that has a severe deficiency of research.

I extend my sincere thanks to all members of the public who have written to me about the issue. The response has been overwhelming. The Department of Enterprise, Trade and Investment has granted a total of four petroleum licences covering the Lough Neagh basin, Lough Allen basin, Rathlin basin and Rathlin Island.

The motion is not an attempt at scaremongering, as some have suggested. Hydraulic fracturing, which is more commonly known as fracking, has been either banned or placed under a moratorium in France, areas of Germany, Australia, South Africa and in several states in the USA. Now, with the potential for fracking in our own back garden, we need to be extremely cautious about how we progress with this type

of energy extraction. I believe that it would be irresponsible not to place a moratorium on fracking, especially in light of the gaps in research abroad, and, more importantly, the lack of research relating to our own specific case.

This is not a call for a moratorium only, but for a comprehensive detailed environmental impact assessment.

11.30 am

The concerns regarding fracking are wide-ranging, and, first, I will focus on the use of water. Fracking is a process dependent on water; in fact, between 50,000 gallons and 350,000 gallons of water are required to fracture one single horizontal well in a shale formation. It cannot be denied that the sheer volume of water used has the potential to cause great water stress in the areas concerned and could seriously deplete our resources.

Furthermore, there is the issue of contamination. Fracking does not use only water. A wide range of worrying chemicals are employed in the process. Water contamination does not stem from the use of chemical substances only; water used in fracking requires treatment after use, as the process has been shown to increase risk by the release of heavy metals, such as mercury and even arsenic.

In the guidance for licensees for Tamboran Resources, Northern Ireland Water expressed concern regarding the impact such work could have on the quality of its raw water supply. Given the experience of some US citizens regarding the flammability of home water supplies in the vicinity of fracking sites, I call for a full investigation into the impact that fracking could have on not only aquatic ecology but on our water supply.

Water quality and quantity in neighbouring rivers and loughs need to be consistently monitored as fish and other aquatic ecology are highly sensitive to changes in these areas. The Department of Culture, Arts and Leisure (DCAL) stated in licensing guidelines:

“aquatic ecology can be impacted not only in the immediate area of the work but also significant distances downstream”.

Mr Newton: I thank the Member for giving way. This is obviously a matter that she is extremely passionate and concerned about. I recognise those concerns. How many licences have been granted on the issue?

Ms Lo: I understand that four licences have been granted by DETI in Northern Ireland. I have serious concerns about how difficult it would be to predict the water quality, given the sheer amount of water that will be required for the process.

The threat from well blowout is not a benign one. Water deposits may be affected if there are weaknesses or cracks in well casing. According to the House of Commons Select Committee on Energy and Climate Change, fracking would require very stringent health and safety mechanisms to test the integrity of well casing.

The US, in particular, has seen several worrying well blowouts, which have resulted in thousands of gallons of contaminated and untreated water flowing through neighbouring land, which, in turn, has led to the evacuation or, in some circumstances, the relocation of families. The leak of contaminated water and back-flow fluids has resulted in the death of nearby aquatic life and posed serious health risks to the local communities.

Dr Theo Colborn was quoted as saying that the contamination of water from fracking could have negative health implications, including dizziness, headaches, and even irreversible brain damage, on human beings.

Fracking can lead not only to pollution of our water supplies; there are also issues regarding noise and air pollution, which are all products of the degradation that comes with the industrialisation of our beautiful natural landscape. The link between seismic activity and fracking urgently requires investigation before any exploration proceeds. Following two tremors in Lancaster, one of which reached 2.3 on the Richter scale, Cuadrilla suspended its hydraulic fracturing and commissioned a report that concluded this month that it was highly probable that the company's operations were to blame for the tremors. The company has now accepted that. It has since been revealed that the number of tremors is likely to be around 50 in

the space of eight months. Consequently, shale gas experts have admitted that there is a pressing need to investigate and understand the link between the mechanisms used and the tremors.

The last line of the motion is crucial. Why are we discussing permitting further fossil fuel exploration and use, instead of putting our efforts into increasing our environmental and economic sustainability? Why are we actively putting in place new licences that will increase global warming? At the end of the day, shale gas is a fossil fuel. Although I appreciate that there are disputes over the cleanliness of shale gas, one report from Cornell University suggests that the carbon footprint of shale gas is just as bad, or worse, than coal. We really need to start facing the reality that our dependence on fossil fuel is detrimental to our environment and our economy in terms of high fuel prices and potential fines for carbon emissions. The bottom line is that it is not sustainable. We must start working harder to incorporate renewable energy into our economy and our way of life. In Northern Ireland, we have the benefit of excellent natural resources, which could catapult us to becoming world leaders in developing renewable energy. Not only would the green new deal help our environment and create jobs, it would put us at the forefront of green innovation and technology.

At this stage, no economic argument can overcome the concerns regarding the environmental and health risks that have been raised about the impact of hydraulic fracturing. We cannot put a price on safety, and we cannot afford to pay the price of not giving the issue due attention and care. It cannot be determined that the possible economic benefits would present a public interest that would override the potential detrimental environmental and health damages.

Mr Principal Deputy Speaker: Bring your remarks to a close.

Ms Lo: In Fermanagh and South Tyrone, the Minister's constituency, it would be hard to argue in favour of fracking for economic reasons, given the potential negative impact on Lough Erne. With a licensed commercial scale —

Mr Principal Deputy Speaker: Time.

Ms Lo: — fishery valued at between £3 million and £4 million generating local employment and tourism, Lough Erne needs to be protected for fiscal as well as environmental reasons — [Interruption.]

Mr Principal Deputy Speaker: I call Members to order. The Member is over her time. We now move to the next Member to speak.

Mr Moutray: Thank you, Mr Principal Deputy Speaker. I am slightly bemused by the motion before us this morning. The motion has been proposed by those who keep reminding us of the need to identify and utilise alternative sources of energy, and yet they seem to be paranoid about any effort that is made to find solutions to our energy needs — [Interruption.]

Mr Principal Deputy Speaker: Order. The sitting is suspended.

The sitting was suspended at 11.39 am and resumed at 11.41 am.

Mr Principal Deputy Speaker: I wish to make an announcement. We are here for a debate. The public are entitled to hear that debate, but if there are any more interventions from the Public Gallery, I will ask for it to be cleared, and the debate will continue in the public's absence. You can participate in the debate by listening. I ask Members not to refer to the Public Gallery, and I ask that people in the Public Gallery do not intervene in the debate.

Mr Moutray: Given the outrageous behaviour that we have had this morning, we should clear the Public Gallery. I have been a Member for 10 years, and I have never seen behaviour like that which we have just witnessed — it was absolutely appalling — and I trust that I never will again. I request that the Public Gallery be cleared.

Mr Principal Deputy Speaker: The decision that I have made is that, if there are no further interventions, the debate will continue. We will not clear the Public Gallery at this point.

Mr Moutray: The issue of hydraulic fracturing, or fracking, is very complex, but a fair amount of time has already been devoted to it in the Assembly. It has been the subject of many Assembly questions, and the Minister has already answered many of the key concerns. Those who tabled the motion and those who support it are making much of the perceived risks to health and safety. Some of their concerns are outlined in the motion. The Committee for Enterprise, Trade and Investment is aware of the concerns. I

have received e-mails and other correspondence from people expressing a range of concerns and asking me to support the motion. I understand the concerns, but they are not well founded. At least the debate will give the Minister an opportunity to clarify a number of issues, put the record straight and, hopefully, alleviate some of the genuine concerns.

It is worth pointing out that some of the concerns outlined in the motion were experienced in the USA. However, that was largely as a result of poor regulation and should not be exaggerated. There have been many successful explorations in America. Lessons have been learnt from any mistakes, and I am confident that they will not be repeated in Northern Ireland. The types of scenarios that are outlined in the motion are highly unlikely; otherwise, I would support it. I may be wrong, but, as I understand it, the licence that was issued to the Australian firm Tamboran in Fermanagh is for exploration purposes only. We have not gone beyond that stage. Contrary to what Ms Lo said, no licences have been issued to drill at this time.

It is also worth noting that shale gas was the subject of an investigation by a Select Committee of the House of Commons as recently as May this year. It concluded that the risks of water contamination are due to issues of well integrity. They are no different to concerns that are encountered during the extraction of oil and gas from conventional reservoirs. The Select Committee also concluded that there should be no moratorium on the use of hydraulic fracturing.

It should be noted that shale gas is 50% cleaner than oil in respect of greenhouse gas emissions and 25% cleaner than oil when used in transportation, and it is likely to be only a quarter of the price. I am confident that the potential benefits that may flow from hydraulic fracturing, if properly regulated, managed and controlled, will greatly outweigh any risks.

11.45 am

Northern Ireland has a fine reputation for its pioneering skills and enterprising spirit. Let us not sulk in the corner seeing only dangers and problems. Let us look for ways around those problems and ways in which we can embrace every opportunity. Potentially, we have a tremendous opportunity to develop new indigenous sources of energy. Is that not a prize worth striving for? I oppose the motion.

Mr Flanagan: Go raibh maith agat, a Phríomh-LeasCheann Comhairle. Éirím chun tacaíocht a thabhairt don rún seo. First, I would like to distance myself and my party from the comments that came from the Public Gallery.

I support the motion in order to send a clear message of support to those who have worked to raise awareness of the issue of fracking across Ireland and to show my solidarity with the campaigners who have travelled here in good faith this morning. I congratulate the proposer of the motion for the way in which she has covered a complicated and controversial topic.

Before I start, I should probably declare an interest in the topic. I come from west Fermanagh, where plans are in place for fracking to take place. The Member from the other side of the House is correct: a licence has not been issued to allow fracking, but the plans are there. I come from west Fermanagh, and most of my family, from my mother's and father's sides, live, work and farm in the area. I am very proud of where I come from and of the people I represent. So I know all too well of the fears that exist in west Fermanagh about the proposals to extract gas from the county.

This is not the first time that the issue of fracking has been raised in the House. I must say that the flippant way in which the Minister dealt with the matter on the two previous occasions when it was discussed annoyed an awful lot of people in her constituency, particularly when she accused me of scaremongering and of stopping jobs coming into Fermanagh. I appeal to her today to be more mature, to be less dismissive and to actually take the genuine concerns and the very real dangers that exist into consideration when responding to the debate.

Mr Newton: I thank the Member for giving way. It is my understanding that, from as early as 2000, work of a similar nature was done in Fermanagh. No major concerns were raised at that stage and, as far as I am aware, no negative environmental impact occurred either. Why is it that we were only given the successful track record of that type of work in America, where there have been in the region of 50,000 or 60,000 fracking attempts without any impact on the environment, about which concerns are being raised today? .

Mr Deputy Speaker: The Member has an extra minute.

Mr Flanagan: Go raibh maith agat, a Phríomh-LeasCheann Comhairle. I thank the Member for his intervention. He will be aware that 596 different chemicals were not added to the ground back in 2000 or at any other time when gas exploration work has taken place in Fermanagh. That is one of the differences. He also says that fracking has successfully taken place in America. My definition of successful does not include contaminating water supplies, killing animals, giving people cancer and being able to set water supplies on fire.

Fracking is very much a new and emerging technology, and we should not be rushing to use it without taking all of the facts on board. Anna Lo detailed where bans are in place across the world. Fracking has been banned, for example, in France, where around 80% of the energy generated comes from nuclear power. So, if the French Government, in their wisdom, believe that nuclear power is all right but fracking is bad, there must be something wrong with it.

The points about the potential environmental and health consequences have been well made and will, no doubt, be well rehearsed before the end of the debate. Many Members will focus on the potential contamination of our water supply and on the risk to the nearby environment and the health of our people in the areas that may be affected as a result of a toxic cocktail of dangerous chemicals being added to our natural environment. I, however, would like to focus on the damage that will be done to Fermanagh's economic potential as a result of the plans.

At present, Fermanagh has two thriving industries: tourism and agriculture. If fracking were to be given the go-ahead in west Fermanagh, there would be a massive detrimental impact on the number of people visiting the county. People come to Fermanagh to enjoy a clean environment, fresh air and tranquillity. In one of its recent public meetings, Tamboran revealed that if the process gets the green light, it plans to install nearly 200 9-acre concrete drill pads across west Fermanagh. That will, no doubt, impact on our beautiful landscape.

Many people come to Fermanagh to make use of the waterways, particularly Lough Melvin, Lough MacNea and, of course, Lough Erne. However, any potential contamination to the water will surely leave people reluctant to use those waterways for outdoor activities. There has to be a certain irony in the fact that the Minister last week launched the Lough Erne product development study, which identifies strategic plans for future waterways investment. We must ask whether there is a chance that her Department will allow fracking to proceed.

Lough Melvin, which is near Garrison, where I come from, is internationally renowned for its range of unique plants and animals. There are widely held and genuine concerns about the impact that fracking could have on the delicate ecological balance in places such as Lough Melvin. Across west Fermanagh, many people are employed in the agrifood sector, and given the risk of damage to animal health and contamination of the water supply, we need to be very cautious about giving anyone the right to put it in jeopardy.

Mr Givan: Will the Member give way?

Mr Flanagan: No; I am running out of time, so I apologise.

DUP and DETI representatives have said, and will say, much about security of supply and about how we need to focus on the manipulation of modern forms of energy. I know that shale gas may be modern for any Member who believes that the earth is only 6,000 years old. However, this is a fossil fuel; the clue is in the name. This is not modern, and gas is not an alternative to gas.

A Westminster Committee carried out a detailed inquiry into the matter, and far be it from me to sell its message, but its report stated that:

"shale gas was unlikely to be a 'game-changer'".

It also stated that:

"energy security considerations should not be the main driver of policy on the exploitation of shale gas."

Mr Nesbitt: Perhaps I could begin by trying to be clear, definitive and unambiguous about my party's position: we are not in favour of any hydraulic fracturing while there is any reasonable doubt that it has a negative impact on the environment. I will come back, if I may, to reasonable doubt in a moment.

Let me suggest a form of words that we would have welcomed as an amendment: we would have called on the Minister to ensure that, before any hydraulic fracturing takes place, a detailed environmental impact assessment is carried out to confirm that there will be no resulting damage to the area in question. Hopefully, that is clear and unambiguous.

In that context, I will explain why we struggle to support the motion. The first element of the motion calls for a withdrawal of licences. However, it is hard to support that without knowing the cost of withdrawing licences. That refers not only to the cash cost or the potential cost of licensees' litigation but to the reputational cost to Northern Ireland plc. Are we open for business or are we not open for business? With our current issues about energy, not least its cost and the security of supply, why do we want to close down an operation without good reason?

That element of the motion also calls for an environmental impact assessment "into the practice". Who will do that? As we heard, that practice is conducted in many American states and in Germany, Poland, Sweden and Ukraine. Would we do it ourselves, or would there be an international assessment?

The second element of the motion states that:

"hydraulic fracturing can put local water sources at risk of contamination".

I have no difficulty with that. Of course it can; I have seen the clips of 'Gasland' on YouTube. However, oil drilling can also go horrendously wrong, and with 70% of our households dependent on home heating oil, are we really saying that we should stop importing heating oil because of the potential danger?

The third part of the motion talks about:

"a variety of adverse environmental impacts".

It also says that:

"the process of fracking can cause serious well blowouts, which put both workers and local communities at risk".

Once again, what about the Gulf of Mexico and the blowout in oil drilling that happened there? Are we to stop oil drilling, or do we stop importing oil when we are 70% dependent on it?

The fourth part of the motion states that:

"the production of hard-to-reach fossil fuels is not compatible with efforts to achieve carbon reduction targets".

I would welcome further information on that, and I would welcome a further debate on it but with an open mind. Surely a natural energy source could be a Holy Grail for Northern Ireland and should not be rejected out of turn.

Finally, the motion:

"urges the Minister of Enterprise, Trade and Investment to give greater support to the generation of energy from renewable sources instead."

I believe that that final word, "instead", is a clue to the real intent of those who authored the motion. It is not about a moratorium: it is a straightforward no to hydraulic fracking. Therefore, it is not about a cautious approach; it is about outright opposition before the full facts have been established. My party would very much welcome further divvying up of the full facts and some frank, open and honest debate.

On that subject, I am sure that many Members have received many petitions, e-mails and letters on this issue. I want to mention a briefing for medical practitioners that I received. It is 19 pages long. On page 17, it includes a suggested template letter for the convenience of doctors and medical practitioners. A key paragraph of the letter is worded as follows:

"My private research into the technology to be used leads me to have very serious concerns regarding its safety".

It seems to me that that wording is trying to encourage medical practitioners to pretend that they have conducted their own private research. I contacted one of the authors —

Mr Agnew: I thank the Member for giving way. It is important to note that, at the end of the briefing, it urges doctors to conduct their own research and, in doing so, come to their own conclusions. It highlights the concerns of one doctor and the other authors of the paper.

Mr Principal Deputy Speaker: The Member has an extra minute.

Mr Nesbitt: I thank the Member for his intervention. Perhaps I could go on to explain that I was so disturbed by that annex that I sent an e-mail to the contact address that was attached to the document and asked the recipient to call my mobile phone urgently. In fairness, that person did so. We discussed that particular paragraph and whether it actually encourages medical practitioners to state that they have conducted private research. I hope that the House will accept that, as a journalist, I am not bad at making contemporaneous notes. The response was, "There is no point you challenging the authors of this document."

I believe that there is every point in challenging the authors of the document.

Mr Principal Deputy Speaker: Bring your remarks to a close.

Mr Nesbitt: My party will bring forward its own motion in the new year. I am afraid that we may be forced to abstain on this occasion.

Mr Byrne: I want to say at the outset that the SDLP supports the motion, even though we have concerns about parts of it. It is fair to say that Northern Ireland is so highly dependent on imported oil, particularly for generation of electricity, that we have to be open-minded about new sources of energy.

Hydraulic fracturing poses great concerns for communities in areas for which licences have been issued. The situation is the same as it was for lignite in County Antrim 10 or 12 years ago. It raises the same concerns. People are concerned about contamination of the environment and the water supply. We are back at the same place.

Hydraulic fracturing is, primarily, about pumping very high volumes of water into the ground in order to force gas up and out through the earth. The problem is whether outputs of gas to the surface can be controlled. There are two major concerns. The first is about contamination of the water supply. Given that high volumes of water that have been mixed with chemicals have to be pumped into the bore well, that raises concern about possible contamination of the water table and underground water. People of Fermanagh, in particular, have great concerns about what might be the ramifications for them, their environment and their two primary industries, agriculture and tourism, which were referred to by Mr Flanagan.

The second concern relates to use of the technology. Is it precise, refined and controllable? That is an open question. There is great concern that, when high-pressure water is pumped into the bowels of the earth and fissures or cracks are exploited, there is no way to control cracks that then emerge on the surface. That is where major concerns arise about control of the output of the gas. Can it be collected on the surface at manageable locations? That is an open question. I contend that the technology has not yet been refined anywhere.

If we look at the great example of exploring for fossil fuels in the USA, we will see that a number of states have become so concerned that they have passed legislation. For example, in May 2010, the Pennsylvania state legislature passed a Bill that enforced a three-year moratorium on further leasing of exploration acreage of Marcellus shale until a comprehensive environmental impact assessment has been carried out.

That is the question. If we are issuing exploration licences, is it permitted development or not? Will environmental concerns be considered?

12.00 noon

Mr Ross: I thank the Member for giving way. Does he acknowledge that one of the issues in the United States of America, in particular, was that many states had little or no regulation around fracking? You cannot compare that to Northern Ireland, where there is a lot of regulation. Before you would even get to the stage of drilling, you have an environmental impact assessment and all the planning guidelines to get

round. You cannot compare where the United States was 10 years ago with where Northern Ireland is today.

Mr Principal Deputy Speaker: The Member has an extra minute.

Mr Byrne: I thank Mr Ross for his statement. He has brought some reality to the debate.

The question is whether this will be permitted development or whether there will be consultation with the Planning Service, the Northern Ireland Environment Agency and other concerns. That is why we need an explanation of what licences are. Are they desktop exercises, or do they allow for the start of real and practical exploration for gas?

Mr Weir: I thank the Member for giving way. The Member has said that we need an explanation of what licences are, yet the motion calls for the withdrawal of licences. If the Member, by his own admission, does not know what he is supporting and what is proposed in the motion how, in earth's name, can people stand by this motion?

Mr Byrne: I will not take a lecture from Mr Weir or anyone else. The motion calls for a moratorium. The SDLP believes — [Interruption.]

Mr Principal Deputy Speaker: Order. The Member has the Floor.

Mr Byrne: The SDLP believes that the cautionary approach is the proper way to look at the issue. Until there is reassurance for local communities, there will be grave concerns. Let us try to ensure that there are proper explanations and proper consultations with the local communities that will have to endure what would be actual exploration.

In August 2010, the state of New York imposed a temporary moratorium on new shale gas activity until the US Environmental Protection Agency had reported on its study of shale gas. The state of New Jersey imposed a one-year moratorium from 25 August 2011. The technology for the mining of fossil fuels is very strong in the US; if those states are urging a cautionary mode, we should also pursue that mode.

We are largely in favour of the motion, but we recognise that the last third of the motion is prescriptive, in that it emphasises the use of only "renewable energy sources". We need to have an open mind about trying to exploit the potential of shale gas, but we have to make sure that the technology is perfected and the environmental issues properly addressed.

Mr Dunne: I welcome the opportunity to speak on the motion. Many in Northern Ireland face the challenge of the ever-increasing cost of energy. Given the seriousness of the current problem, we need to take this opportunity to explore all possible options for tackling it. At this early stage, it would be premature to block any attempts at looking for alternative methods.

We rely on imported energy supplies. We cannot continue with that overdependence, and we need to look at all potential energy sources. Northern Ireland has the potential to reduce its reliance on imported energy supplies, and we should not rule out any possible alternatives, particularly when work is still at an early stage. Instead, we should openly investigate all methods and possibilities of energy creation. Currently, 66% of our population rely on oil for home heating. That is unsustainable, and we should actively try to address it.

Britain faces an energy shortfall, and we must actively look at alternative means of energy. By doing so, we could not only help to make prices more competitive for bill payers but help the local economy, not least in the creation of new jobs. Hydraulic fracturing is an option that is worth considering. It is essential that the process is fully regulated, as it has been to date. It is important that environmental concerns are addressed, especially those of people who live in areas where fracturing may take place. Residents and landowners can and should play an active role in that process because they are most directly affected.

The current process, which includes exploration of shale gas in certain areas in the Republic of Ireland, as well as parts of Northern Ireland, should not be dismissed prematurely without the full rigours of the regulatory process being undertaken. Renewable energy sources also have a role to play in making our future energy supplies more sustainable and efficient. They, too, should be monitored continually and explored for value and effectiveness.

To propose a moratorium at this early stage of the exploration process, as the motion suggests, shows neither leadership nor a realistic way of tackling the real problem of over-reliance on imported oil and gas

that this country faces today. This is an opportunity for Northern Ireland that should not be overlooked. Lessons can and should be learned from across the world on the issue. Should the exploration process show evidence that there may be potential for gas supply locally, all regulatory processes should, quite rightly, be taken through to evaluate hydraulic fracturing, taking on board all the concerns and issues that surround it. I oppose the motion.

Mr McKay: Go raibh maith agat, a LeasCheann Comhairle. I support the motion and thank its proposer for bringing it to the House. It is obviously an emotive issue, and I welcome the debate, which needs to take place here and in the communities that will be affected.

Clearly, there are public concerns about hydraulic fracturing. It is banned in France, the United States, Germany and South Africa, as Anna Lo mentioned. An independent report published in Britain said that it is highly probable that fracking resulted in tremors in Blackpool. Of course, on the other side of the coin, there are many energy-dependent countries that see it as an opportunity, regardless of the risk. The question for us, however, has to be this: what is the potential cost of hydraulic fracturing? That is where residents and communities are coming from, as well as many professionals and researchers who have looked into the issue.

I agree with the proposer of the motion that there should be an environmental impact assessment. That should be carried out as a priority, and the public need to be across the full facts of the situation, as do Members of the House. That goes for communities right across the North. There has been a particular focus on Fermanagh, but communities in other areas such as north Antrim may be affected and need to be aware of what hydraulic fracturing could cause. Tourism could also be affected by noise pollution. There could also be an impact on the landscape, on traffic and on road damage, all of which need to be taken into account.

There have not been many issues on which we have received such a plethora of e-mails and other correspondence from constituents as well as professors from UCD and people who live in Australia. This is a big issue. I want to read an excerpt from an e-mail that I received from a GP in Tempo, County Fermanagh:

“Five hundred wells are planned and some will be repeatedly fracked. In order to pump millions of gallons of water with sand, plus or minus other chemicals, up to a mile vertically down a borehole and then horizontally for up to another mile with enough force to shatter and fracture the formation, immense power will be needed. Banks of huge diesel compressors will be kept running day and night for weeks at a time on each of the 500 wells. The incessant noise will be extreme, and plumes of diesel fumes will be pumped into the air day and night with resultant smog. The roads will be torn up with huge trucks ferrying water, sand and chemicals to the rigs and contaminated water away from the rigs. Millions of gallons of water will be forced down each of the 500 wells and between 20% and 80% of this will come back to the surface as severely contaminated waste water and will have to be disposed of.”

That does not paint a pretty picture. There has also been correspondence from a professor in UCD's school of chemistry and chemical biology noting extreme concern about the proposal. We should be cognisant of those voices and opinions, and we need to focus on the wording at the end of the motion about renewables, because we should not forget that we are one of the only countries in Europe that has great potential in wind energy, hydro-energy and tidal energy. Scotland is light years ahead with that, whereas we are going too slowly.

The fact of the matter is that the party across the way has held the enterprise, trade and investment portfolio for a number of years. It also held the Department of the Environment portfolio, which deals with planning, for a number of years, and this issue is not going fast enough.

Mr Ross: Will the Member give way?

Mr McKay: Yes.

Mr Ross: Will the Member accept that this is a debate about the potential to lower energy prices and that one of the contributing factors to lowering energy prices in Northern Ireland will be the interconnector? Will he not acknowledge that his party's opposition to that could end up costing households across Northern Ireland much more through higher energy bills?

Mr Principal Deputy Speaker: The Member has an extra minute.

Mr McKay: I agree with the Member that there is clearly a need for infrastructure that allows us to get energy from renewables on to the grid. However, I want to discuss this issue and the controversy around it. The DUP has a policy of embracing every energy opportunity regardless of the consequences. In the previous Assembly, we had a debate on nuclear energy, and the DUP would not rule out building nuclear power plants across the North. The DUP is willing to take risks regardless of the impact that they will have on the environment, our waterways and our communities. Before we do anything, we have to carry out environmental impact assessments and be across the detail before we even consider undertaking the process that is proposed.

Mr Frew: This is a very important debate, although I do not feel that the timing is right. There is a lot of concern out there about the issue, and there have been — it is not nice to say it — scaremongers among us, even during today's debate. The horror stories and the extremes that we have heard in the Chamber go some way towards explaining why there is so much public concern at present.

It has been said that we need explanations and clarity. I have taken it upon myself to seek that clarity and to ask the Minister of Enterprise, Trade and Investment a series of questions on hydraulic fracturing. I will outline some of the answers that I have received. I hope that they provide clarification for Members. In response to a question for written answer, the Minister said:

"The drilling of an exploration borehole involving hydraulic fracturing will require planning permission under the Planning (Northern Ireland) Order 1991 and the Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 1999".

So, first of all, the licences are not for hydraulic fracturing; they are for exploration and boreholing, and people will have to seek planning permission to frack hydraulically.

People have been coming to me to ask for information, and, in another response, the Minister told me that the company in Fermanagh that is involved in fracking:

"have stated their intention not to use any chemicals ... in their fracking fluids."

Mr Agnew: Will the Member give way?

Mr Frew: Go on ahead, yes.

Mr Agnew: I appreciate that the Member has done his own research into the matter, but, for his interest, the chief executive of Tamboran has now admitted in an interview in the Republic of Ireland that chemicals would be required.

Mr Principal Deputy Speaker: The Member has an extra minute.

Mr Frew: This is what it comes down to: where is the information? Give us the information on what chemicals are being used. Let us have a proper debate about this, and let us find the information instead of scaremongering among our people. I am from north Antrim, and I know the concerns that people from north Antrim have about lignite. I know the difference between lignite mining and shale gas exploration and mining, which were compared earlier. There is a world of difference between the two, and I do not support lignite mining in any shape or form. However, we need to ensure that we explore every avenue that is open to us so that we can have the fuel to fund and run this country, to produce food for this country and to produce food for the world. It is all tied up, and some of the contributors to the debate have not helped to assuage the concerns of our people. It is about legislation —

12.15 pm

Mr Swann: Will the Member give way?

Mr Frew: Go ahead.

Mr Swann: The Member mentioned the concerns of people in north Antrim about lignite mining. Has he received any correspondence from residents in north Antrim who are concerned about the fact that fracturing may take place off the Rathlin basin as far down as Ballymoney?

Mr Frew: To date, I have received no such correspondence from people in north Antrim. I have received many pieces of correspondence from Fermanagh, but I have received none from County Antrim. Although

people are concerned about and interested in the subject, they realise that we have to worry about the security of our energy.

Sometimes, I have to laugh at Sinn Féin's stance on some issues. They are in danger of becoming the "no" men of Ulster: if it is not hydraulic fracturing that they are against, it is the North/South interconnector, which we need badly, and nuclear fuel. It should be realised that we already benefit from nuclear fuel in Northern Ireland. So, people have to be careful about how they take the debate. Let us talk about the fact that Sinn Féin is so opposed to Rose Energy. When will Sinn Féin say yes to the people of Northern Ireland around fuel and around energy?

Mr Boylan: Will the Member give way?

Mr Frew: Sorry, I will not give way any more. I have already given way twice.

This is about keeping Northern Ireland's options open. It is about ensuring that our people have the best choice available to keep their fuel costs down. Sometimes, it is easy to complain and to protest about things, but, when you are in a position of leadership, it is about how you inform yourself, take things forward and legislate. That is where the US failed, although only a small number of the 50,000 wells failed there. It is about legislation, restrictions and ensuring that we control the process to the best of our ability. There are risks. Every day there are risks, but it is about managing risks. I oppose the motion.

Mr Kinahan: As many of you will understand, I am pleased to speak in the debate, particularly as the Ulster Unionist environment spokesman. There are some, not many, in the Chamber who are more environmentally conscious than me. It is our job in the Assembly to find balance and to use common sense, and today is a perfect example of trying to find balance.

We need the resources from another power source. We are told that gas will run out some time around 2068, and we know that petrol, which is getting more and more expensive, will run out. We know how important it is to the cost of everything that we do. So much of what we do is based on fuel, whether it is the heating of our houses or the fuelling of cars. As an Assembly, we must find the balance between looking for that power and protecting the environment.

Most of us have been lobbied on the issue, and, as the previous Member who spoke said, we have to get the emotion out of the debate. We have to find the right information and the right way forward for Northern Ireland. The mere fact that France has banned it probably means that it is the right thing not to ban it, as there are always other interests. Some countries have banned it, and others have allowed it, which confirms my point that we have to ensure that we have all the details and make the right decisions.

We are told that it may cause an earthquake —

Mr Byrne: Will the Member give way?

Mr Kinahan: Not just yet; I will in a minute.

We are told it may cause an earthquake; we are told it may pollute our rivers; we are told we are not sure what it will do to greenhouse gases. There is a mass of unknowns. Look at the earthquake: if I may hesitate for a bit of humour, in Blackpool we know of one person whom the earth moved for that night. Maybe there were many more, and it was not due to fracking.

Look at pollution of rivers. Something I have always pushed for here is the proper sampling of our rivers. That should be happening all the time, and we should have checks in place. We should be monitoring our rivers and looking at water treatment. As far as greenhouse gases go, we do not understand that. We will keep looking and checking. We do not know our way forward. I will give way now.

Mr Byrne: I thank the Member for giving way. Does he accept that France has had a very diverse energy source policy for many years, including a well-developed nuclear energy policy, and that the states in America that urge a cautionary approach must have some reason for doing so?

Mr Kinahan: I welcome what you said, and I do not fully know everything that France is doing. However, you have just really made my point: we need to know more. We need to look at all the different matters that are behind this. Our party feels that we should have had a different amendment today, and we will table a motion on this subject in the new year.

As I said, the Northern Ireland economy is driven by the freight industry and the use of oil. We can look and must keep looking at all the alternative forms of energy. Solar struggles here. We are still in the very early days of finding our way forward with wind and hydro. There are many others. We must keep looking for the alternatives and trying to find the way forward, but not at the cost of stopping ourselves finding what my colleague called the Holy Grail for Northern Ireland.

The problem for us is the wording of the motion. It calls for a moratorium and a withdrawal of the licences. We would like to have seen it calling for an environmental impact assessment. We do not feel that a moratorium will work for Northern Ireland, and we know that there will be legal and cost issues in withdrawing the licences.

I hate seeing anything in the Assembly being delayed. It is a habit of ours that causes much damage to many of our decisions by being too slow. Today, however, we have to wait until we know more detail on the subject, debate it again in the near future and find the right way forward. We must not stop ourselves finding the right sources. At the same time, however, we must protect the environment. We will abstain today.

Mr Lynch: Go raibh maith agat, a Phríomh-LeasCheann Comhairle. I also welcome the opportunity to speak on the motion. Only six months ago, very few of us knew of the term "fracking"; today, it is common currency, particularly in my area and county and the counties of Leitrim and Cavan. That is due to a high-profile campaign by concerned citizens from the region, some of whom have travelled here today to listen to the debate.

The issue of fracturing has already created opposing opinions. Supporters will argue that shale gas could resolve the energy crisis for the next 100 years and that the method of extracting that gas from deep in the earth is safe and environmentally friendly, with a minimal footprint. To understand more about the process and what the company had to say, I attended a public meeting in Enniskillen last July. The spokesperson stated that fracturing had no negative impact on the local communities and that we all should embrace the new technology as progress for the economy and society and in the creation of much-needed jobs.

Concerned citizens were subtly accused of scaremongering, living in the past, blocking progress and failing to understand what was in their interest. However, opponents who attended that meeting pointed to the catastrophic environmental and health costs that fracking caused, particularly the potential impact of hydraulic fracturing on drinking water. Fracking has been most vigorously criticised for the damage caused by its waste water, which includes chemicals and radioactive elements such as radium. Those toxins have, according to reports, polluted rivers, streams and lakes. That would be devastating for the county that I and the Minister come from, a region that has many rivers and streams.

Mr Newton: Will the Member give way?

Mr Lynch: I will give way in half a minute.

A study commissioned by the American petroleum industry, which was leaked to 'The New York Times', concluded that radium in waste water dumped off the coast of Louisiana posed a significant cancer risk to people who ate fish from the Gulf of Mexico. Throughout the US, there have been other nightmare stories. As somebody else mentioned, those were highlighted in the film 'Gasland', which tells the stories of many Americans whose water supplies have been polluted by fracturing. Such stories may be passed off as nonsense, but France, as other Members have said, was the first nation to ban hydraulic fracturing after the Government there came under heavy pressure from concerned citizens.

Mr Newton: I thank the Member for giving way. I am sure that, like myself and many other Members, he is concerned about the rising cost of energy. I am sure he is concerned about the finite energy resources. Is it not the case that shale gas has the potential not only to stabilise the energy supply but to stabilise the cost of gas in particular and energy sources in general?

Mr Lynch: I thank the Member for his intervention. I am not against the use of energy for society, but that should not be at any cost.

Ms Gildernew: I noted with interest the talk from the opposite Benches about how shale gas will encourage cheaper energy. I have not heard any guarantee of that. Yet, in the meantime, we could destroy our agriculture industry, our tourism industry and the water quality that we enjoy. There are too many things that we know can go wrong and no guarantees about cheap energy.

Mr Principal Deputy Speaker: The Member has an extra minute.

Mr Lynch: I thank the Member for her intervention.

These gases could be taken from the earth in many generations' time, when they are safe to the community and society as a whole. The motion states that a moratorium should be placed on the onshore and offshore exploration development of shale gas. In light of all the serious questions about fracturing, the Minister should immediately take the same course of action as places such as Pennsylvania, New York, New Jersey and, as I mentioned, France. In response to Mr Newton, I say that we should not have fuel at any cost to society.

Mr Principal Deputy Speaker: The Business Committee has arranged to meet immediately on the lunchtime suspension. I propose, therefore, by leave of the Assembly, to suspend the sitting until 2.00 pm. The first item of business after lunch will be Question Time. The last Member to speak in this debate before the Minister responds will be Mr John Dallat.

The debate stood suspended.

The sitting was suspended at 12.28 pm.

On resuming (Mr Deputy Speaker [Mr Beggs] in the Chair) —

2.00 pm

<http://www.niassembly.gov.uk/record/reports2011/111206today.htm#a4>

Private Members' Business

Hydraulic Fracturing

Debate resumed on motion:

That this Assembly believes that a moratorium should be placed on the onshore and offshore exploration, development and production of shale gas by withdrawing licences for hydraulic fracturing (fracking), at least until the publication of a detailed environmental impact assessment into the practice; notes that hydraulic fracturing can put local water sources at risk of contamination; further notes that, amongst a variety of adverse environmental impacts, the process of fracking can cause serious well blowouts, which put both workers and local communities at risk; considers that the production of hard-to-reach fossil fuels is not compatible with efforts to achieve carbon reduction targets; and urges the Minister of Enterprise, Trade and Investment to give greater support to the generation of energy from renewable sources instead. — [Ms Lo.]

Mr Hamilton: I had not expected to be called, but I will do my best to whip myself up into a frenzy after the two-hour break in the debate. It is sometimes difficult for Members to be humble and accept that there are things that we do not know. I have sometimes exhibited the characteristics of that problem, as have others. Part of the problem in the debate is that a lot of people have been speaking on this difficult, complex issue as if they were world authorities, when it is clear from their contributions that they are not. Some people should accept the fact that they are not experts or authorities on the subject.

My party and I support a precautionary approach precisely because we do not know everything about fracking, hydraulic fracturing or whatever one wants to call it. Everyone should be able to get behind such a precautionary approach, which is exactly what the Department has been bringing forward. If the hyperbole and partisan point scoring were taken out of some earlier contributions, the message would be that everyone wants a precautionary approach. Although the debate has been divided, we can all unite behind that thought.

The motion is flawed because everybody subscribes to a precautionary approach and because of the issue of licences. Whatever about the legal and cost ramifications should the Minister withdraw what licences there are, there are no licences for hydraulic fracturing in place at present. As I understand it — I stand to be corrected if I am inaccurate — there are licences for geographical mapping exercises, which could lead to drilling at a later stage. If we get to that stage, my understanding is that planning permission and an environmental impact assessment will be required.

This is not a done deal that is definitely going to happen; there are huge processes to go through. As other Members pointed out, we have a fairly strict environmental regime here in comparison with other places in which fracking is already happening. Scare stories from those places have already been mentioned today. It is little wonder that there is concern in the community about what fracking involves and that people are scared of what might happen, given the hysteria that has been whipped up in the Chamber today. If I had never heard about the issue or had not done any research, the words of some Members would leave me feeling deeply concerned. What we heard today is in no way a balanced argument. It does not take into account the fact that a precautionary approach is being taken.

There is also the question of whether we should do this sort of thing on principle. I find it confusing that there is a belief that we can suddenly give up our virtual dependence on fossil fuels for energy and move to some sort of renewable Utopia. People who believe that most countries will not depend on fossil fuels as part of their energy mix in the short to medium term are kidding themselves. Rather than looking for alternative sources for fossil fuels and other forms of energy, people argue that security of supply does not matter. They say that it does not matter whether you are at the end of a pipeline, that you can be held hostage by a madman in the Middle East or that a Russian oligarch can turn off the tap or put up the prices. People here are encouraging us to do that.

What maddens me even more is that it is not just this issue. There is a problem with all the other alternative energy sources as well, according to some of the people who brought the motion forward. If it is wind energy, they do not want the wind turbines in certain places. If it is wave power, they want somebody put on seal watch to ensure that seals are not massacred in any way. If it is energy from waste, they are against that as well. I do not even want to touch on nuclear power, not least because I do not have the time to do it. It seems to be that, with every single alternative energy source that is put forward, the very people who would preach to us about moving away from fossil fuels are against it.

A cautious steady approach is what the Minister of Enterprise, Trade and Investment is putting forward. I listened to the SDLP Members speaking about opposing it as well. I do not know whether they do not have confidence in the planning system, they do not have confidence in the planning officials, or they simply do not have confidence in their own planning Minister. That Minister will play a key role in the process, but I would not be surprised if they do not have confidence in him, given what we have seen played out in the media in recent months. A cautious steady approach, the very approach that the Minister and the Department are taking forward —

Mr Speaker: Will the Member bring his remarks to a close?

Mr Hamilton: — is exactly what we should all be united around today.

Mr Speaker: The Member's time is up.

Mr Hamilton: The motion is a silly one, intended only to divide rather than to accept the facts of the situation.

Mr McGlone: Go raibh maith agat, a Cheann Comhairle. In rising on behalf of my party to support the motion, I thank Ms Lo for introducing the motion earlier. I realise that a lot of feelings run through every community. The reason I say that is that I represented a community for 16 years, and I am glad that Mr Frew mentioned it. Although we seek to rationalise such things and present details around them, deep-seated feelings run through communities, as in the area that I represented, where there was lignite open-cast mining. I have heard the arguments from the other side about fuels, but, ultimately, we must take cognisance of and listen to the communities that it is happening in, and treat them with the respect and sensitivity required.

Mr Givan: I am grateful to the Member for giving way. I note the comments about listening to the community and taking on its concerns. I absolutely agree that we should do that, but is it not also incumbent on those political representatives not to exploit communities' fears to score political points against people but to be informed about the issue and then provide leadership to those communities so that hysteria is not whipped up unnecessarily?

Mr McGlone: I could not disagree with that at all. In fact, I am glad that the motion has been brought before us today because that is precisely the sort of thing that we wish to avoid through the debate. We want to make it informed, so as to make people aware, inside the House and outside it, of how the process works.

Over a number of years, we have sought to look at fossil fuels. I have heard the arguments from the other side of the Chamber. The development of more efficient mining technology has resulted in a rash of applications by private companies for a licence to use, in this case, hydraulic fracturing, commonly referred to as fracking, in the extraction of previously hard-to-reach and, consequently, unprofitable shale gas. I have to put it on record that I do not oppose private companies making a profit, but the Assembly has a duty to ensure that the pursuit of short-term private profit does not come at any long-term public cost. I will expand on that later.

We now know that the European Commission has commenced three major studies in response to concerns about environmental, social and health problems that may arise as a result of the process. Those studies can help to allay fears in the community, and I would like to hear from the Minister about the recognition of that by her Department and other Departments, because I am also aware that other Departments will play a role in the process as it works its way through. It is very important that Departments send out a message to communities that their interests are also being considered.

I spoke to a gentleman here today from Pennsylvania in the United States who lived quite close to one of those mining areas where fracking had been taking place. He was deeply concerned. Indeed, the reason he was here today was to highlight those concerns to Members involved in the debate. I thank him for being here with us.

There are issues around what are referred to as —

Mr Newton: I thank the Member for giving way. Mr Hamilton already referred to the inaccuracy of the motion, which states that: "the process of fracking can cause serious well blowouts".

We know that all drilling can cause blowouts. Indeed, the very fact that fracturing is singled out gives cause for concern. When hydraulic fracturing takes place, the gas is at a much lower pressure than in conventional oil and gas drilling, in which such events are rare. The main reason is that shale gas is typically at a much lower pressure than that produced in conventional gas drilling.

Mr McGlone: I thank the Member for his intervention, which was more of a speech than an intervention. He will appreciate the concern about the issues that arise from hydraulic fracturing. Millions of gallons of water are used in the process of hydraulic fracturing, hence the need for an environmental impact assessment. Up to 40% of that water, together with the chemicals added by the industry, namely the heavy metals, salt and volatile petroleum compounds, will potentially come back into the water system as a blowback. If there is any sort of seismic shift as a consequence of, or simultaneous to, that fracking process and it permeates the underground or overground waterways, we will have to give that serious and major consideration.

Mr Speaker: Draw your remarks to a close.

Mr McGlone: There are 500 chemicals commonly used in the process of hydraulic fracturing. There has to be a requirement on the industry to declare what those chemicals are —

Mr Speaker: The Member's time is up.

Mr McGlone: — and for us to hear what those are.

Mrs Foster (The Minister of Enterprise, Trade and Investment): Today's debate offers me an excellent opportunity to clarify a number of issues surrounding the process of exploration for shale gas and to set the record straight on a number of allegations that have been made today, all of which are incorrect. It is the role of responsible Ministers to seek to take full advantage of any indigenous natural resources that Northern Ireland has and to support those who are willing to invest not inconsiderable sums of money in Northern Ireland. Nevertheless, I take very seriously the many concerns that have been raised about the potential risks of trying to exploit potential oil and gas reserves here. Those concerns are genuine for the most part. I appreciate that the many people who have written to me or e-mailed me about the issue have deeply held views.

Let me make one or two things abundantly clear at the outset. The premise of the motion is fundamentally flawed. There is no licence for fracking in Northern Ireland. No hydraulic fracking licence has been issued. I do not know how many more ways I can say that. Today, Members in the Chamber and, indeed, the motion asked me to withdraw licences for hydraulic fracking. There are no licences for hydraulic fracking. Indeed, no one in Northern Ireland has a licence to extract oil or gas by any method.

My Department has issued licences to four companies in three counties in Northern Ireland, which permit them to explore for oil and gas. It is important to emphasise that, should those explorations prove fruitful and lead to a wish to go further and try to extract the valuable commodity, the necessary application for drilling and developing oil or gas will be subject to the full rigour of the planning system and associated environmental impact assessment processes. To respond to Mr McGlone's point: DETI and other regulators, notably the Department of the Environment, will undertake detailed scrutiny of any proposals in the context of the rigorous international engineering protocols that are emerging.

That point was made clear to me by Ms Lo outside the Chamber as well. We will take into account all the international engineering protocols that are now emerging.

3.45 pm

So, no fracking licences have been issued by my Department, and therefore —

Ms Lo: I thank the Minister for giving way. As I said outside the Chamber, within the planning policy framework, do you think that we have the competence in DOE to have a full, rigorous and independent impact assessment?

Mrs Foster: Obviously, that is a matter for my colleague in DOE, but if he does not have the competence internally, he will have to look outside of DOE for that international competence. Under European regulations, we will have to carry out an environmental impact assessment that satisfies the European Commission. Therefore, the rigorous international engineering protocols will have to be met and dealt with.

The licence to explore for shale gas which has been issued in County Fermanagh — that seems to be the area that people are looking at most closely — does not permit the operator to do anything more than undertake desk studies and similar preparatory work. Construction works, deep drilling, fracking and similar major activities must and will be subject to planning and many other safeguards. I would not have that any other way.

We can hardly impose a moratorium on hydraulic fracturing, because no permit has yet been issued, and it is unlikely that an application will come to the Department for at least another 12 to 18 months. During that period, we will reap the benefit of several in-depth scientific and engineering studies currently in progress, notably in the United States.

When Members listen to the debate and look at the Hansard report for today, they will find that we are dancing on the head of a pin. We all want to see environmental impact assessments carried out in respect of fracking. We all want to see that the regulations that have been put in place in Northern Ireland are carried out fully and competently, and I would not have that any other way in County Fermanagh for the obvious reason.

Developing a more diverse, sustainable and secure heating market is, however, a key priority for my Department. Northern Ireland, as we hear many times in the Chamber, is overly dependent on home heating oil and that leaves consumers vulnerable to price fluctuations beyond our control and has a direct impact on levels of fuel poverty. Moving from our current dependence on fossil fuels and maximising our renewable resources in a cost-competitive way is, of course, a challenge, but a move to renewables will bring many benefits. Renewables can be a key player in creating the investment, exports and jobs that the Northern Ireland economy needs, and Members referred to that today. Renewable energy is no longer a fringe industry but very much a part of the mainstream, and we should look to shale gas to be the same. Not only might domestic shale gas production help to provide energy independence, it could also play a significant role in job creation.

I have read Bill Clinton's new book, 'Back to Work: Why We Need Smart Government for a Strong Economy', in which he says clearly that, as we develop other sources of clean power, we should use natural gas a bridge fuel. It is the cleanest fossil fuel — more than 50% cleaner than coal in terms of greenhouse gas emissions, 25% cleaner than oil when used in transportation and only one fourth as expensive. Bill Clinton sees it as one of the ways to put America back to work. People can look up that reference in his book.

Environmental concerns can and have been raised about all forms of energy production, and Mr Hamilton referred to that. However, we are all aware of the robust planning processes that are in place to protect the natural environment and those same measures will apply to shale gas extraction and the fracking

process. Those operations will be regulated under a wide range of petroleum, environmental protection, pollution prevention, planning and health and safety legislation.

I firmly believe that Northern Ireland needs to explore the potential that shale gas offers. Even to consider imposing a moratorium at this early stage would reek of a missed opportunity. That view is reinforced by the findings of a recent United Kingdom study carried out by the House of Commons Select Committee on Energy and Climate Change. The Committee took evidence from a range of scientific, industrial and environmental organisations and concluded that:

“There is no evidence that the hydraulic fracturing process poses any risk to underground water aquifers provided that the well-casing is intact before the process commences.”

Moreover, the environmental and climate risks posed by shale gas need to be balanced against its potential contribution to energy security. On balance, we feel that there should not be a moratorium on the use of hydraulic fracturing in the exploitation of the UK’s hydrocarbon resources, including unconventional resources such as shale gas.

Members should look beyond the negative headlines from the United States — and I accept that there are many — and be mindful of the fact that more than 50,000 shale gas wells have been successfully developed in the United States, and that that source of gas now provides 20% to 30% of US domestic gas supply.

The well-publicised instances of water pollution arising from fracking operations in the United States undoubtedly resulted from poorly engineered wells constructed and operated within a fragmented and weak regulatory regime. Nobody can say that Northern Ireland has such a regime; it has a very strong regulatory regime. Indeed, the regulatory authorities would have oversight and control of all drilling operations.

Members also voiced their concern that fracking can put local water resources at risk of contamination, despite the fact that fracking was used in County Fermanagh in the early 2000s and there were no huge problems, even though we did not have as much regulation at that time. Therefore, let me clearly state my confidence in the extensive regulations governing this area to ensure that the operation can be safely managed. All the processes will require consents from the Department of the Environment and will be monitored in practice. The operation in County Fermanagh — Tamboran Resources — plans to undertake the fracking process without using chemicals, thus further mitigating any risk of contamination.

Mr Agnew said that it uses chemicals in other areas. However, it uses other chemicals, as, indeed, do other companies, in ordinary drilling processes, but it does not use chemicals in this fracturing process.

In Northern Ireland, perhaps even more than elsewhere in the United Kingdom, we benefit from a regulatory regime run by central government, where the lines of communication are open and easy. My Department has established a regulators’ forum, which brings together representatives from DETI, DOE, DARD and the Health and Safety Executive, together with officials from Northern Ireland Water. The group is collating existing regulations, monitoring developments, noting gaps in legislation, and thus compiling an integrated process to regulate those new engineering processes well before they begin.

We also enjoy considerable support from our colleagues in the Department of Energy and Climate Change in Great Britain, which has been controlling and monitoring oil and gas exploration in Great Britain for decades. Indeed, the United Kingdom has always been a world leader in energy development, and all that experience is at our disposal.

Members also raised the issue of possible well blowouts, which, of course, is a very serious concern. However, I must point out — I think that the point was made by Mr Newtown, who was called the Minister; I can understand why, as he was very well informed — that almost all blowouts occur in conventional exploration where gas and oil are at high pressure in a geological trap. That is not the case in shale gas wells, where gas flows slowly to the surface for collection, so the high pressures of conventional exploration are not developed. Blowouts from fracked wells have been recorded, but they are extremely rare. Again, it is a matter that will be assessed at the planning stage and covered in detail by operating protocols.

Turning to the question of the carbon footprint of shale gas development, the Department of Energy and Climate Change has said that it expects the carbon footprint for shale gas to be similar to other onshore natural gas fields. Shale gas provides a valuable opportunity for increasing the security of energy supply

and stabilising gas supplies over the medium term, during which time we shall reduce the overall energy carbon footprint by increasing the proportion of renewables and promoting carbon capture and storage.

I am aware of the argument that developing shale gas may defer the development of renewables. However, any local shale gas production should substitute for necessary imported coal, oil and gas rather than increase the percentage of fossil fuels in Northern Ireland's energy supply.

Therefore, rather than have an impact on the slowing-down of renewables, it would, in fact, displace coal, oil and gas.

I could go through in some detail my commitment to renewables, which, I understand, is proposed in the last part of the motion. I have set out that commitment on many occasions in the House during debates on the strategic energy framework, so I do not believe that there is a necessity to do so again, save to say that, when all the initiatives are taken together, I suspect that there is no other area in the United Kingdom the size of Northern Ireland or with its population that can boast such a diversity of renewables under development.

To conclude, I ask Members to face some stark facts.

Mr Allister: I have been listening carefully to the Minister and to the debate. She has provided some useful clarification on a number of issues that were raised. Can she further clarify a couple of things? First, the Minister said that the present licence does not permit for any drilling. One of her colleagues referred to it as a "desktop exercise". Is there not even, within the licence, permission for exploratory drilling? Secondly, what are the criteria by which the current licence was judged? Did it have any test to pass? What are the criteria that must be met before you get a licence such as this? Can the Minister explain that?

Mrs Foster: The licence was granted after a competitive process, which was carried out in a legislative way in consultation with the Department of Energy and Climate Change in London. A panel was set up comprising officials in DETI and officials in DECC. They set up a procedure, and that is how the process was carried out. The process has been set out in some detail to the Committee for Enterprise, Trade and Investment. I am happy for the Member to see the process and to send him a copy of it so that he is informed in that regard.

I will move now to the drilling. Shallow boreholes can be drilled to take rock samples, but drilling down into the substructure to try to get gas out is not allowed. Drilling can be done merely to look at the rock structure at the shallow boreholes. Anything else is subject to permission from DETI. Permission must be given by DETI to drill the shallow boreholes as well. It is not a full licence, but permission from DETI is needed.

I will finish by saying, yet again, that there are no licences for fracking at present. If applications come in for licences for fracking, they will go through the whole panoply of regulatory procedures that will happen.

I hope that I have answered some of the questions that have been raised today, because there has been a lot of confusion about the procedure. I hope that it is now clear to everyone in the House.

Mr Agnew: I thank Mr Allister for his contribution, because he finished where I mean to start. I have in front of me the licence that was granted to Tamboran. It is available on the internet, so anybody can check whether what I am saying is accurate. As was pointed out, the licence allows for some drilling. To suggest that drilling is desktop research is misleading at best. The licence allows for a second exploration well to be drilled in years 4 and 5.

Mrs Foster: The Member is wrong. Tamboran has to apply to the Department for a licence to frack in years 4 and 5. It also has to submit a planning application and undergo an environmental impact assessment.

Mr Agnew: It is outlined in the licence, as the Minister said. There may be further permissions necessary, but it is within Tamboran's licence. It is a licence that includes fracturing, multiple horizontal legs, flow testing and seismic monitoring. It is on public record, and people can check it if they wish.

For technologies such as hydraulic fracturing, there is a distinct lack of standards. Standards are needed in the UK and internationally to ensure the consistency of safety measures and to guarantee that environmentally damaging or dangerous practices, such as those that have been recorded in the US, do not occur in the UK. Those are not my words but the words of the Institution of Gas Engineers and

Managers. Much has been made in the debate of the fact that we have sufficient regulatory provision to ensure that shale gas fracturing is safe.

The Institution of Gas Engineers and Managers would not agree.

4.00 pm

In fact, Northern Ireland is the only region of these islands that does not have an independent environmental protection agency. So, I am not convinced that we have sufficient regulations. I have a lot of respect for the Northern Ireland Environment Agency and the work that it does, but it is an under-resourced part of the Department and it is open to political interference on operational decision-making because it is not an independent body.

When I was elected to the Assembly, I said that I would judge policy based on whether it was good for the economy, good for people and good for the environment, and that is the basis on which I judge the proposals for the extraction of shale gas.

Much has been made in the House today of the potential economic and energy benefits to Northern Ireland. With regard to economic benefits, the CEO of Tamboran said that there were 700 jobs in three counties — north and south, one county being Fermanagh — over 20 years and 500 to 800 wells. If we take Fermanagh's proportion of that out, and I accept that these are crude figures, it would equate to approximately 10 jobs a year being created in Fermanagh. Many of those jobs will be temporary and there is no guarantee that they will be provided to local people. This is a high-tech industry, and I do not know whether we have the skills in Northern Ireland to benefit from those jobs. [Interruption.]

Mr Speaker: Order.

Mr Agnew: We will put at risk our tourism and agriculture industry in the area. Tourism alone accounts for £25.9 million of economic activity in Fermanagh every year. I know that the Northern Ireland Tourist Board seeks to double tourist revenue by 2020. Fifty-two per cent of businesses in Fermanagh are agriculture related. Fermanagh boasts nine nature reserves, over 56 areas of special scientific interest, and the Marble Arch caves — the first UNESCO-designated geopark in the UK. All that will be put at risk if we allow fracking to take place in Fermanagh. I know that we need jobs, but we do not need so few jobs at such a high cost.

The social impact has been highlighted by the petition that I handed in today, which was signed by almost 2,800 people. Some have dismissed the health concerns and the water-security concerns as scaremongering, but I will give some facts. On average, 20 million litres of water will be required for the fracking process to take place, and it is estimated that there is the potential for around 200 wells in County Fermanagh, which is 200 wells needing 20 million litres of water. I said earlier that Tamboran said that it will require to use chemicals in the Republic, and I do not see why there would be any difference here. I asked the Minister whether she would make it a condition of its licence that it did not use chemicals, and she said that that will not be happening.

Mr Frew asked for some facts, and I think that his points were relevant. It has been mentioned that between 500 and 600 chemicals have been used in different processes in the United States. Common chemicals used in the frack fluid include benzene and formaldehyde, both known carcinogens — they present the risk of causing cancer. Even if those chemicals are not used in the fracking fluid, the produced water that comes back will pick up many chemicals underground, including benzene and ethyl benzene — both known carcinogens. It has been confirmed that there is radon under Fermanagh, so there is the potential for radioactive waste. In response to a question, the Environment Minister confirmed to me that we do not have the facilities to deal with that in Northern Ireland. [Interruption.]

Mr Speaker: Order.

Mr Agnew: Mike Nesbitt referred to the concerns of GPs in Fermanagh and suggested that, because there was a template letter, GPs in Fermanagh were not capable of conducting their own research and making their own decisions as to whether they should send on those letters. He does an incredible disservice to GPs — people who have gone through so many years of education and research to become doctors. I think that they are capable of making up their own minds.

Finally, moving on to the environmental impact of this activity, there has been some discussion about whether shale gas is a clean form of energy. Let me make it clear that it is not. In the full life cycle of

shale gas, from the drilling to the burning of the gas, there are as many greenhouse gas emissions as from hard coal.

It is not a clean form of energy. Joe Byrne asked about the potential for controlling the gas. Dr Ingraffea — I hope that I pronounced his name correctly — who is from the United States and works in the gas industry, estimates that between 2% and 6% of methane is lost into the atmosphere during the process. Methane is between 20 and 25 times more harmful than CO₂ in its impact on climate change. Indeed, the Tyndall Centre for Climate Change Research — [Interruption.]

Mr Speaker: Order.

Mr Agnew: Thank you, Mr Speaker. The Tyndall Centre for Climate Change Research has indicated that the extraction and use of shale gas is not compatible with the UK climate change targets. It was on the Minister's watch, when she was Minister of the Environment, that Northern Ireland signed up to the UK Climate Change Act 2008. We have responsibility, as part of the UK, to meet our climate change targets.

Mrs Foster: We are.

Mr Speaker: Order.

Mr Agnew: The Tyndall Centre for Climate Change Research, with its experience and research, does not believe that we can if we start using shale gas.

Many Members, including Stephen Moutray and Gordon Dunne, talked about the need for alternative energy. As Mr Flanagan pointed out, gas is not an alternative to gas. We have gas in Northern Ireland and we use it. This is not an alternative. Mr Newton referred to — [Interruption.]

Mr Speaker: Order. The Member must be heard.

Mr Agnew: Thank you, Mr Speaker. Mr Newton referred to the potential for shale gas to stabilise prices. The fact is that shale gas is economically viable only because gas prices are high. That is why the technology is coming to the fore.

There is a sense that shale gas will somehow bring energy security to Northern Ireland. It will not be our gas: we do not have a nationalised gas industry in Northern Ireland. The UK Treasury will receive royalties; there is no guarantee of benefits to Northern Ireland. That gas will be sold on the international market, like all other gas.

I move on to the Members who were in favour of the motion. I thank the many such Members who contributed to the debate. As Anno Lo and Phil Flanagan pointed out, New York, New Jersey, north Rhine in Germany, France and an area of South Africa all have either moratoria or bans on fracking because people there are duly concerned. Water pollution and health concerns were touched on by Anna Lo and Joe Byrne. As we have heard today, shale fracturing is safe as long as nothing goes wrong. America has shown that things can go wrong. It has been pointed out that things go wrong with oil as well. That is why I want us to go full steam into renewables. Scotland has a much more progressive renewables agenda. We should follow its example and seek to have 100% renewable electricity by 2030.

Mr Speaker: The Member should bring his remarks to a close.

Mr Agnew: A warning has come from across the Atlantic. We should heed it. It is time to put a moratorium on fracking.

Question put.

The Assembly divided: Ayes 49; Noes 30.

AYES

Mr Agnew, Ms M Anderson, Mr Attwood, Mr Boylan, Ms Boyle, Mr D Bradley, Mr Brady, Mr Byrne, Mr W Clarke, Mrs Cochrane, Mr Dallat, Mr Dickson, Mr Doherty, Mr Durkan, Mr Eastwood, Dr Farry, Mr Flanagan, Mr Ford, Ms Gildernew, Mrs D Kelly, Ms Lo, Mr Lunn, Mr Lynch, Mr Lyttle, Mr F McCann, Ms J McCann, Mr McCarthy, Mr McCartney, Mr McClarty, Mr McDevitt, Dr McDonnell, Mr McElduff, Mr McGlone, Mr M McGuinness, Mr McKay, Mrs McKeivitt, Mr McLaughlin, Mr McMullan, Mr A Maginness, Mr A Maskey,

Mr P Maskey, Mr Murphy, Ms Ní Chuilín, Mr Ó hOisín, Mr O'Dowd, Mrs O'Neill, Mr P Ramsey, Ms S Ramsey, Mr Sheehan.

Tellers for the Ayes: Mr Agnew and Ms Lo.

NOES

Mr S Anderson, Mr Bell, Ms P Bradley, Mr Buchanan, Mr T Clarke, Mr Craig, Mr Douglas, Mr Dunne, Mr Easton, Mrs Foster, Mr Frew, Mr Girvan, Mr Givan, Mrs Hale, Mr Hamilton, Mr Hilditch, Mr Humphrey, Mr Irwin, Ms Lewis, Mr McCausland, Mr I McCrea, Mr D McIlveen, Miss M McIlveen, Lord Morrow, Mr Moutray, Mr Newton, Mr P Robinson, Mr Ross, Mr Spratt, Mr Weir.

Tellers for the Noes: Mr S Anderson and Mr Dunne.

The following Members voted in both Lobbies and are therefore not counted in the result: Mr Allister, Mr Copeland, Mr Cree, Mrs Dobson, Mr Elliott, Mr Gardiner, Mr Kennedy, Mr Kinahan, Mr McCallister, Mr McGimpsey, Mr Nesbitt, Mrs Overend, Mr Swann.

Question accordingly agreed to.

Resolved:

That this Assembly believes that a moratorium should be placed on the onshore and offshore exploration, development and production of shale gas by withdrawing licences for hydraulic fracturing (fracking), at least until the publication of a detailed environmental impact assessment into the practice; notes that hydraulic fracturing can put local water sources at risk of contamination; further notes that, amongst a variety of adverse environmental impacts, the process of fracking can cause serious well blowouts, which put both workers and local communities at risk; considers that the production of hard-to-reach fossil fuels is not compatible with efforts to achieve carbon reduction targets; and urges the Minister of Enterprise, Trade and Investment to give greater support to the generation of energy from renewable sources instead.

Mrs Foster: On a point of order, Mr Speaker. I want to reflect on the incident that happened earlier in the debate and pay tribute to the security staff of the Building, who acted swiftly to deal with it. For the record, I understand that it was not caused by a member of the group who came to the House to engage with and, indeed, observe the debate on fracking. I want to thank the security staff for the way in which they dealt with the incident.

Some Members: Hear, hear.

[Interruption.]

Mr Speaker: Order. There shall be no applause from the Public Gallery on any issue in the Chamber.

Let me say to people in the Public Gallery that, should they continue, I will have the Public Gallery cleared very quickly.

I thank the Member for her point of order. I know that we do not normally refer to the Public Gallery, but, on this occasion, I can understand why she has. Our security staff dealt with the issue very promptly. It is now with the appropriate authorities, and we await their response.

I ask the House to take its ease as we move to the next item of business.

<http://www.niassembly.gov.uk/record/reports2011/111206today.htm#a8>

